

# Air Slide Table

ø6, ø8, ø12, ø16, ø20, ø25

RoHS

## Reduced in height

**10%\*1 reduction** 27 mm\*1  
(Current model: 30 mm\*1)

## Product weight

**22%\*1 reduction** 298 g\*1  
(Current model: 380 g\*1)

## Allowable kinetic energy

**64%\*1 improvement** 0.09 J\*1  
(Current model: 0.055 J\*1)



## Reduced in height and weight with thinner table

- Thin table made of special stainless steel
- Durable material with the same strength as the current model

\*1 Comparison between the double-ported type and the current MXQ12-30 (without adjuster)

## 2 combinations of guide and cylinder bore size available

New

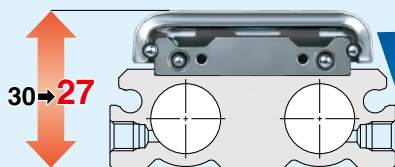
- The centralized adjuster of the functional option is available as standard.
- Made to order options have been added.
  - Dual stroke specification
  - Side adjuster specification
  - Combined use of shock absorber + metal stopper, etc.

### Double-ported type

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Bore size ø12

Increases flexibility of wiring and piping with piping ports and auto switch mounting grooves on both sides



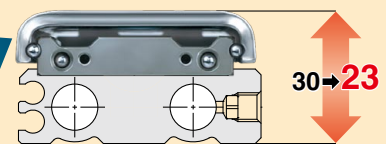
For MXQ12A

Bore size ø8

### Low thrust with high rigidity type

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Combination with a cylinder of one bore size smaller increases rigidity according to thrust. The height can be reduced as well.



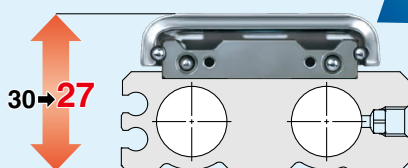
For MXQ8B

### Single side-ported type

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Bore size ø12

Better auto switch visibility. Indicator LED can be checked from one side when used with a short stroke.

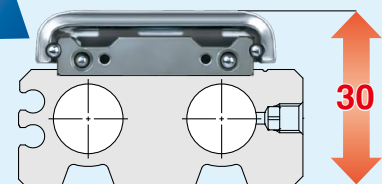


For MXQ12C

### Height interchangeable type

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Height interchangeable with the current MXQ series



For MXQ12

1 guide!

4 bodies!

**MXQ Series**



CAT.ES20-211C

# 2 combinations of guide and cylinder bore size available



◎ Guide Size and Cylinder Bore Size Combination Chart

| Guide size                            |              | Maximum load mass |
|---------------------------------------|--------------|-------------------|
| <p>Small guide</p> <p>Large guide</p> | <p>32 mm</p> | 0.6 kg            |
|                                       | <p>32 mm</p> | 1 kg              |
|                                       | <p>40 mm</p> | 2 kg              |
|                                       | <p>50 mm</p> | 4 kg              |
|                                       | <p>60 mm</p> | 6 kg              |
|                                       | <p>70 mm</p> | 9 kg              |

## Double-ported type MXQ□A

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■ Height reduced by **10%** of the current model

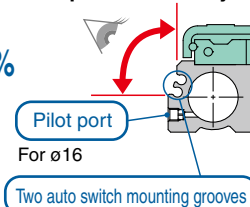
30 mm → **27 mm**

Improved visibility

■ Weight reduced by **22%**

380 g → **298 g**

For MXQ12A-30ZN



■ A piping port and auto switch mounting groove are provided on both sides.

| Bore size | When the height needs to be the same as the current model, choose the MXQ□, height interchangeable type.   |
|-----------|--|
| ø6        | <p>23 mm</p> <p><b>Purpose of usage ①</b><br/>Guide rigidity and a large table surface are necessary but thrust is not needed.<br/>Application examples: Horizontal transfer of workpieces, transfer of tools, low thrust clamping</p>                           |
| ø8        | <p>23 mm</p> <p><b>Purpose of usage ①</b><br/><b>Purpose of usage ②</b></p>  |
| ø12       | <p>27 mm</p> <p><b>Purpose of usage ②</b><br/>A guide with higher rigidity is necessary without changing the thrust from the current model.<br/>Application examples: Transfer of workpieces with increased overhang, High-accuracy and high-thrust clamping</p> |
| ø16       | <p>35 mm</p>   |
| ø20       | <p>43 mm</p>   |
| ø25       | <p>52 mm</p> <p>Size ø16, ø20, and ø25 have two auto switch mounting grooves on both sides.</p>  |

# Select the best actuator with guide according to the application.

**Low thrust with high rigidity type**

**MXQ□B**

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Guide rigidity according to thrust improved

- **Guide rigidity improved by 50%**  
(For MXQ8B and MXQ8A)
- **Cylinder can be downsized when load is light!**
  - Reduced in height
  - Reduced in air consumption
  - Lightweight

**Single side-ported type**

**MXQ□C**

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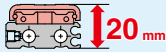
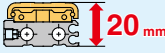

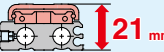
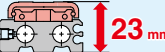
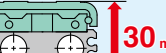







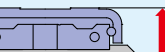
- **Compact body with good switch visibility**  
Applicable to ø8 and ø12 only
- **Compact design, Two auto switch mounting grooves on one side**

**Height interchangeable type**

**MXQ□**

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- **Same height as the current model**
- **Visibility of auto switches improved**
- **Interchangeable in mounting with the current model**

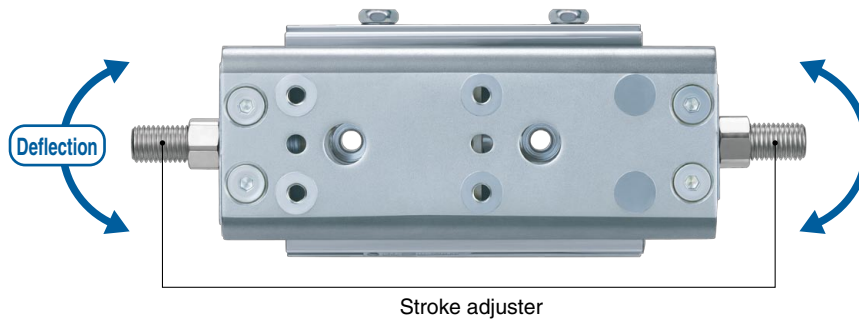
| Bore size | MXQ□B   | MXQ□C  | MXQ□  |
|-----------|---|--|---|
| —         | —   | Not available<br>Use the MXQ□, height interchangeable type.  | —   |
| ø6        |  20 mm<br>Standard/Symmetric type<br>(Figure shows standard model) | Not available  |  20 mm<br>Standard/Symmetric type<br>(Figure shows standard model)  |
| ø8        |  23 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |  21 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |  23 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |
| ø12       |  30 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |  27 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |  30 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |
| ø16       |  37 mm<br>Standard/Symmetric type<br>(Figure shows standard model) | Not available  |  37 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |
| ø20       |  46 mm<br>Standard/Symmetric type<br>(Figure shows standard model) | Not available<br>Use the MXQ□A, double-ported type.  |  46 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |
| ø25       |  46 mm<br>Standard/Symmetric type<br>(Figure shows standard model) | Not available  |  55 mm<br>Standard/Symmetric type<br>(Figure shows standard model) |

Size ø16 and ø20 have two auto switch mounting grooves on both sides.

Size ø16, ø20, and ø25 have two auto switch mounting grooves on both sides.

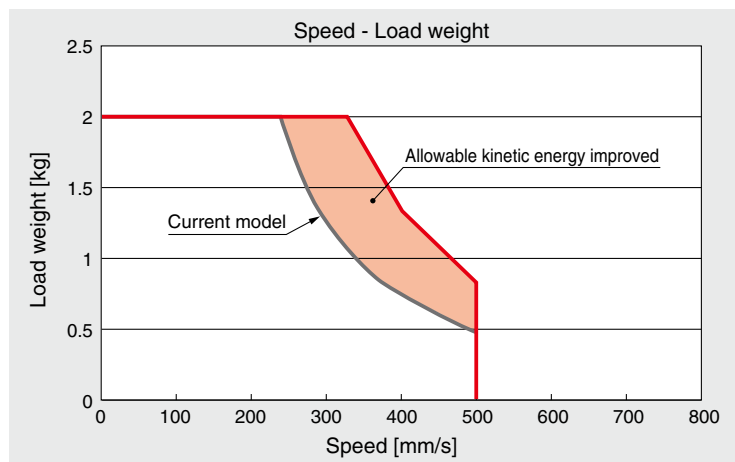
## Stroke adjuster (Option)

The stroke adjuster is positioned in the center.  
Play at the stroke end is reduced.

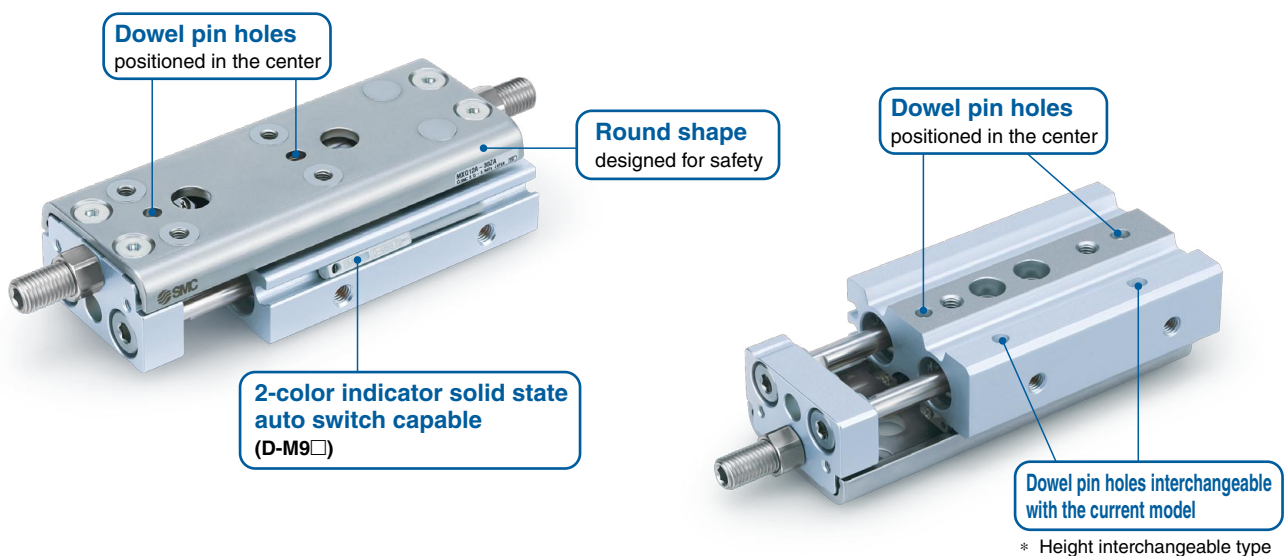


## Allowable kinetic energy improved

Allowable kinetic energy improved by reducing the weight of movable parts



## Table configuration for better function and easier maintenance

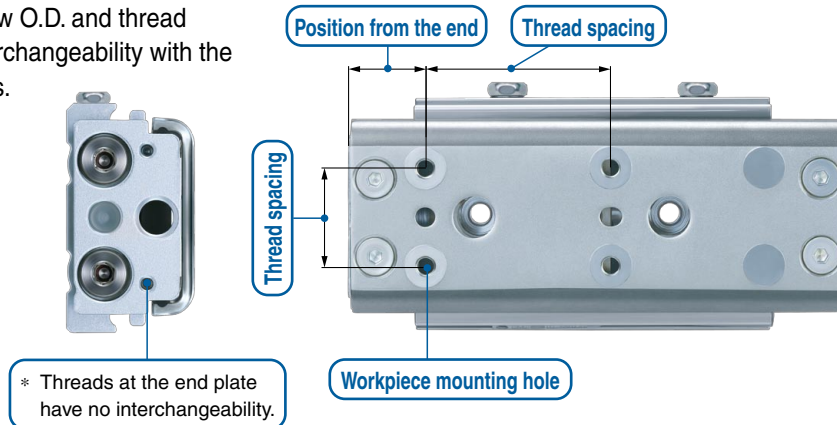




The mounting dimensions are equivalent to the current MXQ series.

**Workpiece mounting**

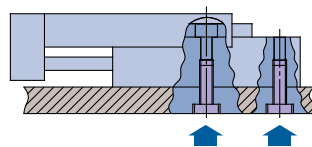
- The mounting screw O.D. and thread positions have interchangeability with the current MXQ series.



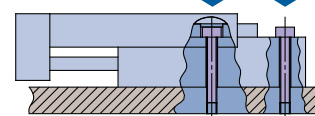
**Body mounting**

- Two methods of mounting are available.
- Body mounting threads and spacing have interchangeability with the current MXQ series.

Lateral mounting (Body tapped)



Lateral mounting (Through hole)



Various stroke adjusters (Option)

**Metal Stopper with Bumper**

High accuracy due to the integrated construction of the bumper and metal stopper: Repeated positioning accuracy of  $\pm 0.05$  or less  
Improved cycle time  
Operating speed of **300** mm/sec (Current model: 200 mm/sec)  
(Compared with a stopper of the current MXQ series)



**Shock Absorber**

**Soft type/RJ**  
Suitable for operations which require gentle stops, such as a lightweight workpiece transfers or low-speed transfers



**Rubber Stopper**

Impact reduced by 1/2 compared with models without a stroke adjuster



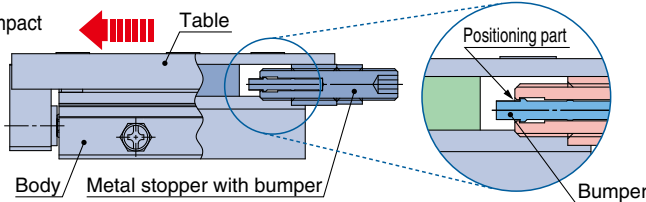
**Metal Stopper**

Suitable for positioning

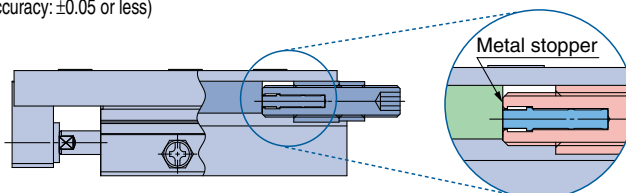


Operating Principle/Metal Stopper with Bumper

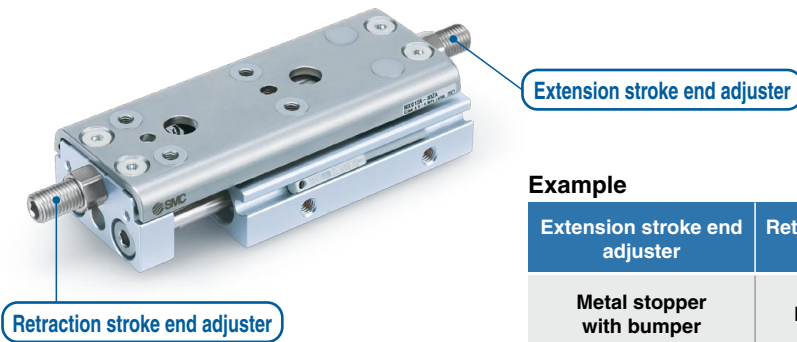
- The bumper absorbs impact at the initial stage.



- The bumper goes into the adjustment bolt, and the metal stopper performs highly accurate positioning at the end of the adjustment bolt. (Repeated positioning accuracy:  $\pm 0.05$  or less)



It is possible to combine an extension stroke end adjuster and a retraction stroke end adjuster.



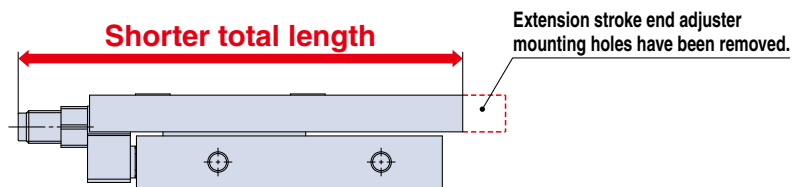
**Example**

| Extension stroke end adjuster | Retraction stroke end adjuster |
|-------------------------------|--------------------------------|
| Metal stopper with bumper     | Rubber stopper                 |

Shorter total length type table is now available.

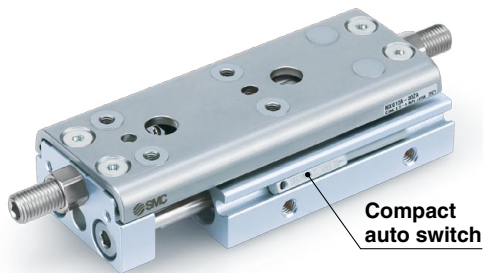
Total length shortened by **8.5 mm**  
**70 mm** (Basic type 78.5 mm) (For MXQ8A-20)

\* Extension stroke end adjusters cannot be mounted.



Compact auto switch is now available.

- Reed auto switch: D-A9□, D-A9□V
- Solid state auto switch: D-M9□(A), D-M9□W



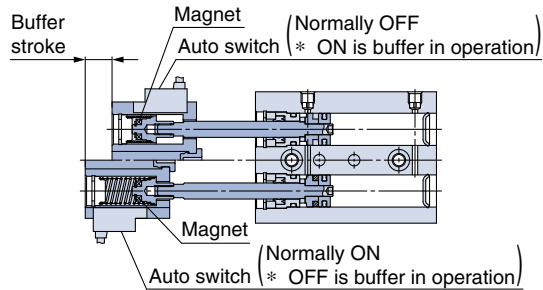
## Functional Options



### With buffer mechanism

- Protects workpieces and tools by eliminating impact at the extension stroke end
- Buffer unit is auto switch capable.

#### Buffer mechanism operating condition

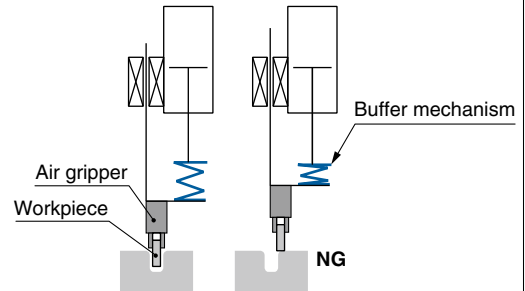


#### Normal condition

- By changing the mounting angle of auto switches, the settings of normally ON/OFF can be changed.

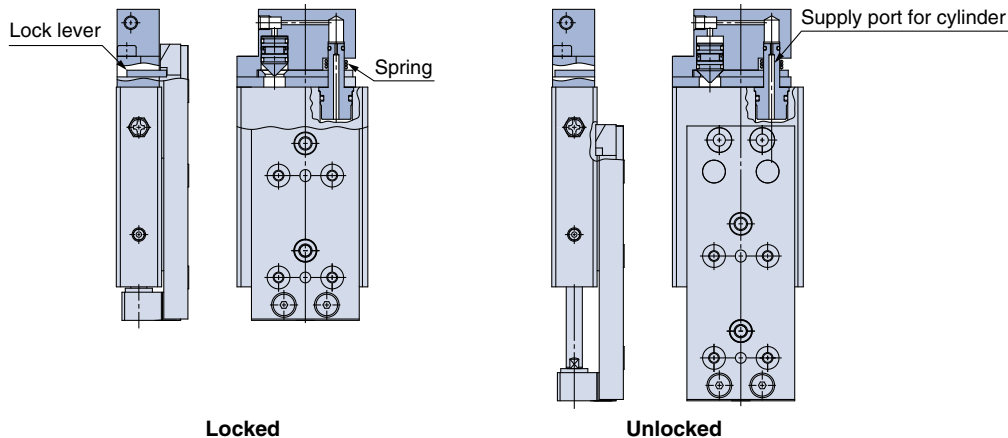
#### Application Example

In workpiece insertion processes when there is a problem such as faulty positioning, the buffer mechanism absorbs the shock from the workpiece impact to prevent damage.



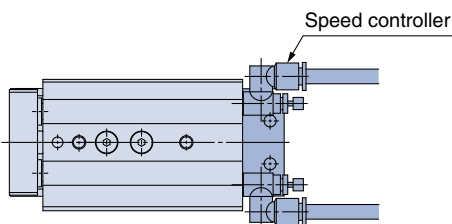
### With end lock

- Holds the cylinder's home position to prevent the dropping of a workpiece even if the air supply is cut off



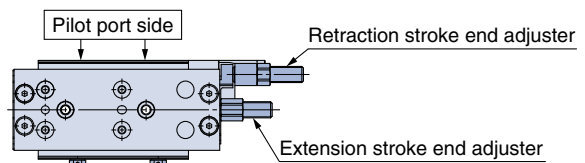
### Axial piping

- Centralized piping in the axial direction helps maintain clear space around the body






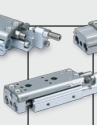

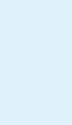










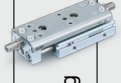
### Centralized adjuster

- The retraction stroke end adjuster is mounted on the extension stroke end adjuster side.



Variations

|   | Bore size |    |     |     |     |     | Body option   |   | Functional option (pages 5, 6, 15)  |   |   |   |   |   |   |   |   |   |   |  |
|---|-----------|----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
|   | 6         | 8  | 12  | 16  | 20  | 25  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Double-ported type</b><br>MXQ□A<br><br>Page 11                 | ●         | ●  | ●   | ●   | ●   | ●   | ●   | —   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |  |
| Stroke  | 10        | 10 | 10  | 10  | 10  | 10  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 20        | 20 | 20  | 20  | 20  | 20  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 30        | 30 | 30  | 30  | 30  | 30  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 40        | 40 | 40  | 40  | 40  | 40  | ●   | —   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |  |
|   | 50        | 50 | 50  | 50  | 50  | 50  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           | 75 | 75  | 75  | 75  | 75  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    | 100 | 100 | 100 | 100 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 125 | 125 | 125 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 150 | 150 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Low thrust with high rigidity type</b><br>MXQ□B<br><br>Page 53 | ●         | ●  | ●   | ●   | ●   | —   | ●   | ●   | ●   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   |  |
| Stroke  | 10        | 10 | 10  | 10  | 10  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 20        | 20 | 20  | 20  | 20  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 30        | 30 | 30  | 30  | 30  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 40        | 40 | 40  | 40  | 40  |     | ●   | ●   | ●   | —   | —   | —   | —   | —   | —   | —   | —   | —   | —   |  |
|   | 50        | 50 | 50  | 50  | 50  |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           | 75 | 75  | 75  | 75  | 75  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    | 100 | 100 | 100 | 100 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 125 | 125 | 125 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 150 | 150 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Single side-ported type</b><br>MXQ□C<br><br>Page 67            | —         | ●  | ●   | —   | —   | —   | ●   | ●   | ●   | —   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |  |
| Stroke  | 10        | 10 | —   | —   | —   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 20        | 20 | —   | —   | —   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 30        | 30 | —   | —   | —   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 40        | 40 | —   | —   | —   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 50        | 50 | —   | —   | —   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           | 75 | 75  | —   | —   | —   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    | 100 | —   | —   | —   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 125 | 125 | 125 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 150 | 150 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Height interchangeable type</b><br>MXQ□<br><br>Page 83         | ●         | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | —   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |  |
| Stroke  | 10        | 10 | 10  | 10  | 10  | 10  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 20        | 20 | 20  | 20  | 20  | 20  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 30        | 30 | 30  | 30  | 30  | 30  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   | 40        | 40 | 40  | 40  | 40  | 40  | ●   | ●   | ●   | —   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |  |
|   | 50        | 50 | 50  | 50  | 50  | 50  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           | 75 | 75  | 75  | 75  | 75  |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    | 100 | 100 | 100 | 100 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 125 | 125 | 125 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |           |    |     | 150 | 150 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

| Adjuster option (page 4, 5)   | Auto switch (page 125) Made to order (pages 127 to 156) |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
|  Metal stopper with bumper                               | •   | • | • | • | • | • | • | • |
|  Shock absorber  | •   | • | • | • | • | • | • | • |
|  Rubber stopper  | •   | • | • | • | • | • | • | • |
|  Metal stopper   | •   | • | • | • | • | • | • | • |
|  Extension stroke end/<br>Retraction stroke end mounting | •   | • | • | • | • | • | • | • |
| Solid state/Reed  | •   | • | • | • | • | • | • | • |
| PTFE grease (-X7)   | •   | • | • | • | • | • | • | • |
| Grease for food processing equipment (-X9)  | •   | • | • | • | • | • | • | • |
| Long adjustment bolt (10 mm longer adjustment range) (-X11)   | •   | • | • | • | • | • | • | • |
| Long adjustment bolt (20 mm longer adjustment range) (-X12)   | •   | • | • | • | • | • | • | • |
| Long adjustment nut and bolt (-X28)   | •   | • | • | • | • | • | • | • |
| Without built-in auto switch magnet (-X33)  | •   | • | • | • | • | • | • | • |
| Fluororubber seal (-X39)  | •   | • | • | • | • | • | • | • |
| Anti-corrosive guide unit (-X42)  | •   | • | • | • | • | • | • | • |
| EPDM seal (-X45)  | •   | • | • | • | • | • | • | • |
| Low-speed specification (15 to 50 mm/s) (-X580)   | •   | • | • | • | • | • | • | • |
| End plate compatible with the current MXQ series (-X2100)   | •   | • | • | • | • | • | • | • |
| Heat-resistant specification (-10 to 100°C) (-X2128)  | •   | • | • | • | • | • | • | • |
| Dual stroke specification (-X2192)  | •   | • | • | • | • | • | • | • |
| Side adjuster specification (-X2200)  | •   | • | • | • | • | • | • | • |
| Combined use of shock absorber + metal stopper (-X2201)   | •   | • | • | • | • | • | • | • |
| Extension stroke end adjuster fixed from the axial direction (-X2202)   | •   | • | • | • | • | • | • | • |



## Double-ported type *MXQ□A Series*



When the features as shown below are required for  $\phi 8$  and  $\phi 12$  sizes, refer to the MXQ□C, single side-ported type as well.

- When two auto switch mounting grooves are required on one side (Two auto switches can be mounted on one side when the stroke is short.)
- When a height lower than the MXQ□A is required (for  $\phi 8$ )

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## Low thrust with high rigidity type *MXQ□B Series*



|                               |         |
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## Single side-ported type *MXQ□C Series*

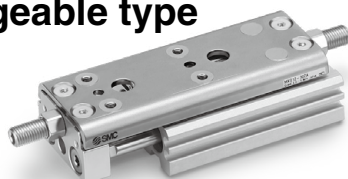


When the features as shown below are required for  $\phi 8$  and  $\phi 12$  sizes, refer to the MXQ□A, double-ported type as well.

- When an auto switch mounting groove and air piping are provided on both sides (for increased flexibility in piping and wiring)

|                               |         |
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## Height interchangeable type *MXQ□ Series*



|                               |          |
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# Air Slide Table

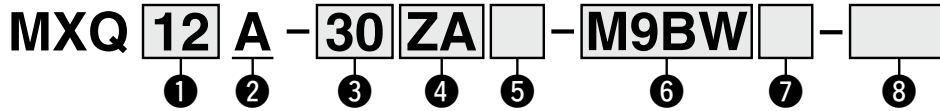
## Double-ported Type

# MXQ□A Series

∅6, ∅8, ∅12, ∅16, ∅20, ∅25



### How to Order



| 1<br>Bore size | 2 Body option:<br>Double-ported type |  | 3 Standard stroke [mm]                 |
|----------------|--------------------------------------|--|--|
|                | A                                    |  |  |
| 6              |                                      |  | 10, 20, 30, 40, 50                     |
| 8              |                                      |  | 10, 20, 30, 40, 50, 75                 |
| 12             |                                      |  | 10, 20, 30, 40, 50, 75, 100            |
| 16             |                                      |  | 10, 20, 30, 40, 50, 75, 100, 125       |
| 20             |                                      |  | 10, 20, 30, 40, 50, 75, 100, 125, 150  |
| 25             |                                      |  | 10, 20, 30, 40, 50, 75, 100, 125, 150* |
|                |                                      |  | 10, 20, 30, 40, 50, 75, 100, 125, 150* |

\* Because piping ports and auto switch grooves are provided on both sides, only the adjuster part of the centralized adjuster is symmetric.  
 \* The operating speed range of the stroke marked with an asterisk (\*) is 50 to 300 mm/s. (Without stroke adjuster)

### 5 Functional options

| Symbol | Functional option                        |
|--------|--|
| Nil    | Without functional option                |
| 1      | With buffer                              |
| 2      | With end lock                            |
| 3      | Axial piping                             |
| 4      | With buffer, end lock                    |
| 5      | With buffer, axial piping                |
| 6      | Centralized adjuster                     |
| 7      | Centralized adjuster (Symmetric)         |
| 8      | Buffer, Centralized adjuster             |
| 9      | Buffer, Centralized adjuster (Symmetric) |

### 7 Number of auto switches

| Symbol | Number |
|--------|--------|
| Nil    | 2      |
| S      | 1      |
| n      | n      |

### 8 Made to order

For details, refer to the next page.

### 6 Auto switch

| Symbol | Without auto switch |
|--------|---------------------|
| Nil    | Without auto switch |

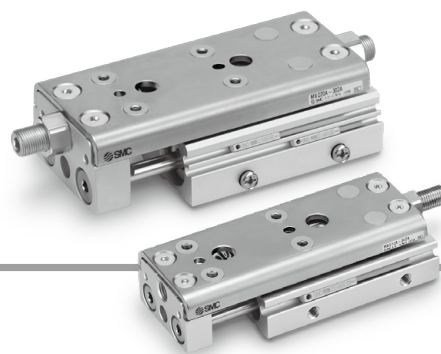
\* For applicable auto switches, refer to the next page.

### 4 Adjuster options/Functional option combinations

| Symbol | Adjuster type*9             |                                | Adjuster mounting position*1*8 |   | Functional option combination |                  |               |                |                         |                                |                      |                                    |                                |   |
|--------|-----------------------------|--------------------------------|--------------------------------|---|-------------------------------|------------------|---------------|----------------|-------------------------|--------------------------------|----------------------|------------------------------------|--------------------------------|---|
|        |                             |                                |                                |   | Nil                           | 1                | 2             | 3              | 4                       | 5                              | 6                    | 7                                  | 8                              | 9   |
|        |                             |                                |                                |   | Without functional option     | *2*3 With buffer | With end lock | Axial piping*6 | With buffer, end lock*2 | *2*6 With Buffer, axial piping | Centralized adjuster | Centralized adjuster (Symmetric)*7 | Buffer, Centralized adjuster*2 | *2*7 Buffer, Centralized adjuster (Symmetric) |
| Z      | Without adjuster            |                                |                                |   | ○                             | ○                | ○             | ○              | ○                       | ○                              | ×                    | ×                                  | ×                              | ×   |
| ZA     | Metal stopper with bumper   |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ×                                  | ×                              | ×   |
| ZB     | Metal stopper with bumper   |                                | ●                              | ○ | ○                             | ×                | ○             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZC     | Metal stopper with bumper   |                                | ○                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZD     | Rubber stopper              |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZE     | Rubber stopper              |                                | ●                              | ○ | ○                             | ○                | ○             | ○              | ○                       | ○                              | ×                    | ×                                  | ×                              | ×   |
| ZF     | Rubber stopper              |                                | ○                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZG     | Shock absorber/RJ           |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZH     | Shock absorber/RJ           |                                | ●                              | ○ | ○                             | ×                | ○             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZJ     | Shock absorber/RJ           |                                | ○                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZK     | Metal stopper               |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZL     | Metal stopper               |                                | ●                              | ○ | ○                             | ○                | ○             | ○              | ○                       | ○                              | ×                    | ×                                  | ×                              | ×   |
| ZM     | Metal stopper               |                                | ○                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZN     | Shorter total length type*4 |                                |                                |   | ○                             | ○*5              | ×             | ○              | ×                       | ○*5                            | ×                    | ×                                  | ×                              | ×   |
| ZP     | Shorter total length type*4 |                                |                                |   | ○                             | ×                | ×             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZQ     | Shorter total length type*4 |                                |                                |   | ○                             | ×                | ×             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZR     | Shorter total length type*4 |                                |                                |   | ○                             | ×                | ×             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZS     | Shorter total length type*4 |                                |                                |   | ○                             | ×                | ×             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZT     | Shorter total length type*4 |                                |                                |   | ○                             | ×                | ×             | ○              | ×                       | ×                              | ×                    | ×                                  | ×                              | ×   |
| ZBF    | Metal stopper with bumper   | Retraction stroke end adjuster | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZBJ    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZBM    | Metal stopper with bumper   | Retraction stroke end adjuster | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZBN    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZEC    | Rubber stopper              | Retraction stroke end adjuster | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZED    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZEF    | Rubber stopper              | Retraction stroke end adjuster | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZEG    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZEH    | Shock absorber/RJ           | Retraction stroke end adjuster | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZEI    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZFJ    | Shock absorber/RJ           | Retraction stroke end adjuster | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZFK    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ×                              | ×   |
| ZGL    | Metal stopper               | Extension stroke end adjuster  | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZGM    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZGN    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZGO    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHP    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHQ    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHR    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHS    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHT    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZHU    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZIV    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZIV    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZJW    | Metal stopper               | Extension stroke end adjuster  | ●                              | ○ | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |
| ZJX    |                             |                                | ●                              | ● | ○                             | ×                | ×             | ○              | ×                       | ×                              | ○                    | ○                                  | ○                              | ○   |

\*1 ●: Shipped together with the product, but not assembled  
 Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.  
 \*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.  
 \*3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.  
 \*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.  
 \*5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.  
 \*6 For axial piping, the piping ports on both sides cannot be used.  
 \*7 Only the centralized adjuster is symmetric.  
 \*8 For details on the adjuster mounting position, refer to the next page.  
 \*9 The metal stopper with bumper option is not available for ∅6.

# Air Slide Table/Double-ported Type **MXQ□A Series**



**Applicable Auto Switches**/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

| Type                    | Special function                          | Electrical entry | Indicator light | Wiring (Output)        | Load voltage |               | Auto switch model |                | Lead wire length [m] |            |       |       | Pre-wired connector | Applicable load |            |            |
|-------------------------|---|------------------|-----------------|------------------------|--------------|---------------|-------------------|----------------|----------------------|------------|-------|-------|---------------------|-----------------|------------|------------|
|                         |   |                  |                 |                        | DC           | AC            | Perpendicular     | In-line        | 0.5 (Nil)            | 1 (M)      | 3 (L) | 5 (Z) |                     |                 |            |            |
| Solid state auto switch | —   | Grommet          | Yes             | 3-wire (NPN)           | 24 V         | 5 V, 12 V     | —                 | <b>M9NV</b>    | <b>M9N</b>           | ●          | ●     | ●     | ○                   | ○               | IC circuit | Relay, PLC |
|                         |   |                  |                 | 3-wire (PNP)           |              |               |                   | <b>M9PV</b>    | <b>M9P</b>           | ●          | ●     | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 2-wire                 |              |               |                   | <b>M9BV</b>    | <b>M9B</b>           | ●          | ●     | ●     | ○                   | ○               |            |            |
|                         | Diagnostic indication (2-color indicator) |                  |                 | 3-wire (NPN)           | 5 V, 12 V    | —             | <b>M9NWV</b>      | <b>M9NW</b>    | ●                    | ●          | ●     | ○     | ○                   | IC circuit      |            |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |               | <b>M9PWV</b>      | <b>M9PW</b>    | ●                    | ●          | ●     | ○     | ○                   |                 |            |            |
|                         |   |                  |                 | 2-wire                 |              |               | <b>M9B WV</b>     | <b>M9B W</b>   | ●                    | ●          | ●     | ○     | ○                   |                 |            |            |
|                         | Water resistant (2-color indicator)       |                  |                 | 3-wire (NPN)           | 5 V, 12 V    | —             | <b>M9NAV</b> *1   | <b>M9NA</b> *1 | ○                    | ○          | ●     | ○     | ○                   | IC circuit      |            |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |               | <b>M9PAV</b> *1   | <b>M9PA</b> *1 | ○                    | ○          | ●     | ○     | ○                   |                 |            |            |
|                         |   |                  |                 | 2-wire                 |              |               | <b>M9BAV</b> *1   | <b>M9BA</b> *1 | ○                    | ○          | ●     | ○     | ○                   |                 |            |            |
| Reed auto switch        | —   | Grommet          | Yes             | 3-wire (Equiv. to NPN) | 24 V         | 5 V           | —                 | <b>A96V</b>    | <b>A96</b>           | ●          | —     | ●     | —                   | —               | IC circuit | —          |
|                         |   |                  |                 | 2-wire                 |              |               |                   | 100 V          | <b>A93V</b> *2       | <b>A93</b> | ●     | ●     | ●                   | ●               | —          | —          |
|                         |   |                  | None            | 2-wire                 | 12 V         | 100 V or less |                   | <b>A90V</b>    | <b>A90</b>           | ●          | —     | ●     | —                   | —               | IC circuit | PLC        |

\*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

\*2 1 m lead wire is only applicable to the D-A93.

\* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW  
 1 m ..... M (Example) M9NWM  
 3 m ..... L (Example) M9NWL  
 5 m ..... Z (Example) M9NWZ

\* Solid state auto switches marked with "○" are produced upon receipt of order.

\* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

\* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

\* Auto switches are shipped together, but not assembled.

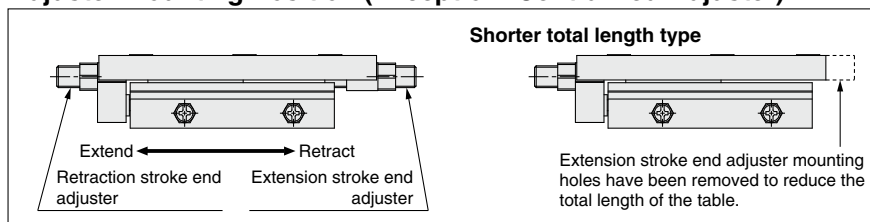


## Made to Order

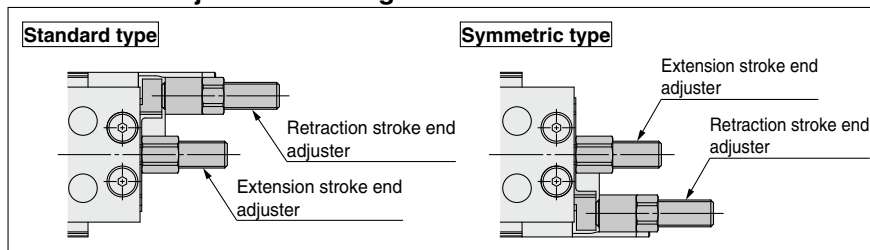
(For details, refer to pages 127 to 156.)

| Symbol | Specifications   |
|--------|--|
| -X7    | PTFE grease  |
| -X9    | Grease for food processing equipment                         |
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         |
| -X28   | Long adjustment nut and bolt                                 |
| -X33   | Without built-in auto switch magnet                          |
| -X39   | Fluororubber seal  |
| -X42   | Anti-corrosive guide unit                                    |
| -X45   | EPDM seal  |
| -X580  | Low-speed specification (15 to 50 mm/s)                      |
| -X2128 | Heat-resistant specification (-10 to 100°C)                  |
| -X2192 | Dual stroke specification                                    |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

## Adjuster Mounting Position (Exception: Centralized Adjuster)



## Centralized Adjuster Mounting Position



## Moisture Control Tube IDK Series



When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ□A Series

## Specifications

| Bore size [mm]                                  | 6   | 8 | 12 | 16 | 20 | 25 |
|---|---|---|----|----|----|----|
| Piping port size                                | M5 x 0.8  |   |    |    |    |    |
| Fluid   | Air   |   |    |    |    |    |
| Action  | Double acting   |   |    |    |    |    |
| Operating pressure                              | 0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)*1   |   |    |    |    |    |
| Proof pressure                                  | 1.05 MPa  |   |    |    |    |    |
| Ambient and fluid temperatures                  | -10 to 60°C   |   |    |    |    |    |
| Operating speed range (Average operating speed) | 50 to 500 mm/s<br>(Metal stopper with bumper: 50 to 300 mm/s)<br>(Metal stopper: 50 to 200 mm/s)<br>* in the standard stroke table on page 11: 50 to 300 mm/s |   |    |    |    |    |
| Cushion (Without stroke adjuster)               | Internal rubber bumper  |   |    |    |    |    |
| Cushion (With stroke adjuster)                  | Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper  |   |    |    |    |    |
| Lubrication                                     | Non-lube  |   |    |    |    |    |
| Auto switch                                     | Solid state auto switch, Reed auto switch (2-wire, 3-wire)<br>2-color indicator solid state auto switch (2-wire, 3-wire)                                      |   |    |    |    |    |
| Stroke length tolerance                         | +2 to 0 mm  |   |    |    |    |    |

\*1 Refer to page 14 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part  
The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

## Weight

| Model  | Standard stroke [mm] |       |       |       |       |       |       |       |       | Reduction of the shorter total length type | Additional weight of adjuster option |                       | Extra for option |          |              |
|--------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|--------------------------------------|-----------------------|------------------|----------|--------------|
|        | 10                   | 20    | 30    | 40    | 50    | 75    | 100   | 125   | 150   |  | Extension stroke end                 | Retraction stroke end | Buffer           | End lock | Axial piping |
| MXQ6A  | 130                  | 130   | 170   | 190   | 210   | —     | —     | —     | —     | -6   | 10                                   | 8                     | 30               | 40       | No addition  |
| MXQ8A  | 140                  | 160   | 180   | 210   | 270   | 290   | —     | —     | —     | -6   | 10                                   | 8                     | 30               | 60       |              |
| MXQ12A | 270                  | 290   | 310   | 370   | 400   | 540   | 610   | —     | —     | -12  | 20                                   | 16                    | 70               | 80       |              |
| MXQ16A | 480                  | 510   | 550   | 630   | 670   | 810   | 1,000 | 1,100 | —     | -21  | 40                                   | 30                    | 120              | 150      |              |
| MXQ20A | 840                  | 840   | 870   | 950   | 1,100 | 1,300 | 1,600 | 1,900 | 2,000 | -33  | 70                                   | 50 (80)               | 190              | 400      |              |
| MXQ25A | 1,400                | 1,400 | 1,500 | 1,500 | 1,900 | 2,000 | 2,300 | 2,900 | 3,100 | -60  | 110                                  | 80                    | 310              | 700      |              |

\* Value in ( ) is the additional weight of the shock absorber.

## Weight of Centralized Adjuster

| Model  | Standard stroke [mm] |                |                |                |                |                |                |                |                | Reduction only when the product comes with a retraction stroke end adjuster |
|--------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---|
|        | 10                   | 20             | 30             | 40             | 50             | 75             | 100            | 125            | 150            |   |
| MXQ6A  | 175                  | 180            | 225            | 245            | 265            | —              | —              | —              | —              | -10   |
| MXQ8A  | 190                  | 210            | 230            | 260            | 320            | 350            | —              | —              | —              | -10   |
| MXQ12A | 355                  | 385            | 405            | 465            | 495            | 635            | 705            | —              | —              | -20   |
| MXQ16A | 640                  | 680            | 720            | 800            | 840            | 980            | 1,170          | 1,270          | —              | -40   |
| MXQ20A | 1,110<br>(-60)       | 1,140<br>(-60) | 1,170<br>(-60) | 1,250<br>(-60) | 1,400<br>(-60) | 1,600<br>(-60) | 1,950<br>(-60) | 2,250<br>(-60) | 2,350<br>(-60) | -60<br>(-25)  |
| MXQ25A | 1,880                | 1,920          | 2,020          | 2,020          | 2,420          | 2,520          | 2,930          | 3,530          | 3,730          | -100  |

\* Value in ( ) is the additional weight of the shock absorber.

## Weight of Moving Parts

| Model  | Standard stroke [mm] |     |     |     |     |     |       |       |       | Reduction of the shorter total length type | Additional weight of adjuster option |                       | Extra for option |          |              |
|--------|----------------------|-----|-----|-----|-----|-----|-------|-------|-------|--|--------------------------------------|-----------------------|------------------|----------|--------------|
|        | 10                   | 20  | 30  | 40  | 50  | 75  | 100   | 125   | 150   |  | Extension stroke end                 | Retraction stroke end | Buffer           | End lock | Axial piping |
| MXQ6A  | 61                   | 66  | 80  | 89  | 97  | —   | —     | —     | —     | -6   | 10                                   | 8                     | 30               | 10       | No addition  |
| MXQ8A  | 68                   | 76  | 85  | 97  | 116 | 138 | —     | —     | —     | -6   | 10                                   | 8                     | 30               | 10       |              |
| MXQ12A | 143                  | 154 | 168 | 192 | 206 | 263 | 300   | —     | —     | -12  | 20                                   | 16                    | 70               | 20       |              |
| MXQ16A | 240                  | 257 | 277 | 309 | 329 | 389 | 469   | 520   | —     | -21  | 40                                   | 30                    | 120              | 35       |              |
| MXQ20A | 408                  | 410 | 437 | 464 | 503 | 588 | 747   | 815   | 882   | -33  | 70                                   | 50 (80)               | 190              | 65       |              |
| MXQ25A | 674                  | 681 | 721 | 761 | 836 | 935 | 1,078 | 1,284 | 1,384 | -60  | 110                                  | 80                    | 310              | 110      |              |

\* Value in ( ) is the additional weight of the shock absorber.

## Theoretical Output



The dual rod ensures an output twice that of current cylinders. [N]

| Bore size [mm] | Rod size [mm] | Operating direction | Piston area [mm <sup>2</sup> ] | Operating pressure [MPa] |     |     |     |     |     |  |
|----------------|---------------|---------------------|--------------------------------|--------------------------|-----|-----|-----|-----|-----|--|
|                |               |                     |                                | 0.2                      | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |  |
| 6              | 3             | OUT                 | 57                             | 11                       | 17  | 23  | 29  | 34  | 40  |  |
|                |               | IN                  | 42                             | 8                        | 13  | 17  | 21  | 25  | 29  |  |
| 8              | 4             | OUT                 | 101                            | 20                       | 30  | 40  | 51  | 61  | 71  |  |
|                |               | IN                  | 75                             | 15                       | 23  | 30  | 38  | 45  | 53  |  |
| 12             | 6             | OUT                 | 226                            | 45                       | 68  | 90  | 113 | 136 | 158 |  |
|                |               | IN                  | 170                            | 34                       | 51  | 68  | 85  | 102 | 119 |  |
| 16             | 6             | OUT                 | 402                            | 80                       | 121 | 161 | 201 | 241 | 281 |  |
|                |               | IN                  | 346                            | 69                       | 104 | 138 | 173 | 207 | 242 |  |
| 20             | 8             | OUT                 | 628                            | 126                      | 188 | 251 | 314 | 377 | 440 |  |
|                |               | IN                  | 528                            | 106                      | 158 | 211 | 264 | 317 | 369 |  |
| 25             | 10            | OUT                 | 982                            | 196                      | 295 | 393 | 491 | 589 | 687 |  |
|                |               | IN                  | 825                            | 165                      | 247 | 330 | 412 | 495 | 577 |  |

\* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 14.

## Maximum Load Weight

| Model  | Without adjuster       |                |                           |                   |          | Adjuster option |                        |                |                           |                   |          |
|--------|------------------------|----------------|---------------------------|-------------------|----------|-----------------|------------------------|----------------|---------------------------|-------------------|----------|
|        | Internal rubber bumper | Rubber stopper | Metal stopper with bumper | Shock absorber/RJ |          | Metal stopper   | Internal rubber bumper | Rubber stopper | Metal stopper with bumper | Shock absorber/RJ |          |
|        |                        |                |                           | Horizontal        | Vertical |                 |                        |                |                           | Horizontal        | Vertical |
| MXQ6A  | 0.6                    | 0.6            | —                         | 0.6               |          | 0.6             | 0.6                    | 0.6            | —                         | 0.6               |          |
| MXQ8A  | 1                      | 1              | 1                         | 1                 |          | 1               | 1                      | 1              | 1                         | 1                 |          |
| MXQ12A | 2                      | 2              | 2                         | 1.5               | 1        | 2               | 2                      | 2              | 1.5                       | 1                 | 2        |
| MXQ16A | 4                      | 4              | 4                         | 4                 | 2.5      | 4               | 4                      | 4              | 4                         | 2.5               | 4        |
| MXQ20A | 6                      | 6              | 6                         | 6                 |          | 6               | 6                      | 6              | 6                         |                   | 6        |
| MXQ25A | 9                      | 9              | 9                         | 9                 | 6        | 9               | 9                      | 9              | 9                         | 6                 | 9        |

## Allowable Kinetic Energy

| Model  | Without adjuster       |                           | Adjuster option |                   |               |               |
|--------|------------------------|---------------------------|-----------------|-------------------|---------------|---------------|
|        | Internal rubber bumper | Metal stopper with bumper | Rubber stopper  | Shock absorber/RJ | Metal stopper | Metal stopper |
|        |                        |                           |                 |                   |               |               |
| MXQ6A  | 0.03                   | —                         | 0.06            | 0.175             | 0.009         | 0.009         |
| MXQ8A  | 0.04                   | 0.018                     | 0.06            | 0.2               | 0.009         | 0.009         |
| MXQ12A | 0.11                   | 0.04                      | 0.12            | 0.33              | 0.02          | 0.02          |
| MXQ16A | 0.12                   | 0.08                      | 0.2             | 0.76              | 0.04          | 0.04          |
| MXQ20A | 0.24                   | 0.12                      | 0.4             | 1.47              | 0.06          | 0.06          |
| MXQ25A | 0.39                   | 0.18                      | 0.6             | 1.73              | 0.09          | 0.09          |

\* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

## Optional Specifications

### With End Lock

| Model                          | MXQ6A       | MXQ8A | MXQ12A | MXQ16A | MXQ20A | MXQ25A |
|--------------------------------|-------------|-------|--------|--------|--------|--------|
| Operating pressure range [MPa] | 0.35 to 0.7 |       |        |        |        |        |
| Holding force [N]              | 12          | 12    | 23     | 45     | 70     | 110    |

### With Buffer Mechanism

| Model                        | MXQ6A                                     | MXQ8A | MXQ12A | MXQ16A | MXQ20A | MXQ25A |    |
|------------------------------|---|-------|--------|--------|--------|--------|----|
| Operating speed range [mm/s] | 50 to 500 (Horizontal mounting 50 to 300) |       |        |        |        |        |    |
| Buffer stroke [mm]           | 5   |       |        | 10     |        |        |    |
| Buffer stroke load [N]       | Stroke at 0 [mm]                          | 3     | 5      | 9      | 16     | 25     | 40 |
|                              | Maximum stroke                            | 6     | 8      | 15     | 24     | 38     | 59 |

### Auto Switches Applicable to Buffer

| Type                    | Model  | Specifications                  | Electrical entry direction |
|-------------------------|--------|---------------------------------|----------------------------|
| Solid state auto switch | D-M9BV | With light, 2-wire              | Vertical                   |
|                         | D-M9NV | With light, 3-wire, Output: NPN |                            |
|                         | D-M9PV | With light, 3-wire, Output: PNP |                            |

## Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

### Metal Stopper with Bumper

| Model  | MXQ8A     | MXQ12A | MXQ16A  | MXQ20A  | MXQ25A    |
|--|-----------|--------|---------|---------|-----------|
| Max. absorbed energy [J]                                       | 0.018     | 0.04   | 0.08    | 0.12    | 0.18      |
| Stroke absorption [mm]   | 2         | 2.8    | 3.6     | 4.4     | 5.5       |
| Min. operating pressure of metal stopper with bumper*1*2 [MPa] | 0.3       | 0.3    | 0.2     | 0.2     | 0.2       |
| Reference) Full compression force of bumper [N]                | 20        | 42     | 65      | 97      | 154       |
| Mounting screw size [mm]                                       | M6 x 0.75 | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

\*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

\*2 Not available for ø6

### Rubber Stopper

| Model                    | MXQ6A     | MXQ8A | MXQ12A | MXQ16A  | MXQ20A  | MXQ25A    |
|--------------------------|-----------|-------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.06      |       | 0.12   | 0.2     | 0.4     | 0.6       |
| Mounting screw size [mm] | M6 x 0.75 |       | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

### Shock Absorber/RJ

| Model                                | MXQ6A     | MXQ8A | MXQ12A | MXQ16A  | MXQ20A | MXQ25A    |
|--------------------------------------|-----------|-------|--------|---------|--------|-----------|
| Max. absorbed energy [J]             | 0.35      |       | 0.5    | 1.5     | 3      | 3.7       |
| Stroke absorption [mm]               | 3         |       | 5      | 6       | 7      | 10        |
| Collision speed [mm/s]               | 50 to 500 |       |        |         |        |           |
| Max. operating frequency [cycle/min] | 80        |       | 80     | 70      | 45     |           |
| Max. allowable thrust [N]            | 150       |       | 245    | 422     | 814    |           |
| Spring force (Extended) [N]          | 1.3       |       | 2.8    | 5.4     | 6.4    |           |
| Spring force (Compressed) [N]        | 3.9       |       | 4.9    | 8       | 15     |           |
| Mounting screw size [mm]             | M6 x 0.75 |       | M8 x 1 | M10 x 1 |        | M14 x 1.5 |

### Metal Stopper

| Model                    | MXQ6A     | MXQ8A | MXQ12A | MXQ16A  | MXQ20A  | MXQ25A    |
|--------------------------|-----------|-------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.009     |       | 0.02   | 0.04    | 0.06    | 0.09      |
| Mounting screw size [mm] | M6 x 0.75 |       | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

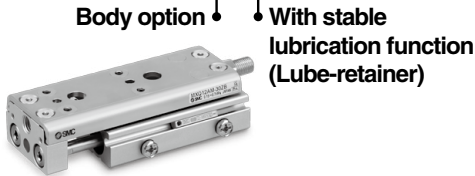


# MXQ□A Series

## With Stable Lubrication Function (Lube-retainer)

- A cylinder for operation in micro-powder (10 to 100 μm) and general environments
- The stable lubrication function (Lube-retainer) is mounted on the piston rod. This prevents the entry of dust and foreign matter and improves durability.

MXQ **Bore size** **A M** — **Stroke** **Adjuster option** **Functional option** — **Auto switch** — **Made to order**



### Functional option (ø6, ø8)

| Symbol | Functional option         |
|--------|---------------------------|
| Nil    | Without functional option |
| 2      | With end lock             |

\* ø12 to ø25: Same as the standard product

### Made to order

\* This differs from the standard product. Refer below.

### Adjuster options/Functional option combinations (ø6, ø8) \* ø12 to ø25: Same as the standard product

| Symbol | Adjuster type*2 *3            |  | Adjuster mounting position*1   |                       | Functional option combination |            |   |
|--------|-------------------------------|--|--------------------------------|-----------------------|-------------------------------|------------|---|
|        |                               |  | Extension stroke end           | Retraction stroke end | Nil                           |            |   |
|        |                               |  |                                |                       | Without functional option     | End lock*5 |   |
| Z      | Without adjuster              |  |                                | *3                    | ○                             | ○          |   |
| ZA     | Metal stopper with bumper     |  | ●                              | ●                     | ○                             | ×          |   |
| ZB     |                               |  |                                | *3                    | ○                             | ○          |   |
| ZC     |                               |  |                                | ●                     | ○                             | ×          |   |
| ZD     | Rubber stopper                |  | ●                              | ●                     | ○                             | ×          |   |
| ZE     |                               |  |                                | *3                    | ○                             | ○          |   |
| ZF     |                               |  |                                | ●                     | ○                             | ×          |   |
| ZH     | Shock absorber/RJ             |  | ●                              | ○                     | ○                             | ○          |   |
| ZK     | Metal stopper                 |  | ●                              | ●                     | ○                             | ×          |   |
| ZL     |                               |  |                                | *3                    | ○                             | ○          |   |
| ZM     |                               |  |                                | ●                     | ○                             | ×          |   |
| ZN     | Shorter total length type*4   |  | Without adjuster               |                       | ○                             | ×          |   |
| ZP     |                               |  | Retraction stroke end adjuster |                       | ●                             | ○          | × |
| ZS     |                               |  | Rubber stopper                 |                       | ●                             | ○          | × |
| ZT     |                               |  | Metal stopper with bumper      |                       | ●                             | ○          | × |
| ZT     |                               |  | Metal stopper                  |                       | ●                             | ○          | × |
| ZBF    | Metal stopper with bumper     |  | Retraction stroke end adjuster |                       | ○                             | ×          |   |
| ZBM    |                               |  | Metal stopper                  |                       | ●                             | ○          | × |
| ZEC    | Rubber stopper                |  | Retraction stroke end adjuster |                       | ○                             | ×          |   |
| ZEM    |                               |  | Metal stopper                  |                       | ●                             | ○          | × |
| ZHC    | Shock absorber/RJ             |  | Retraction stroke end adjuster |                       | ○                             | ×          |   |
| ZHF    |                               |  | Metal stopper with bumper      |                       | ●                             | ○          | × |
| ZHM    |                               |  | Rubber stopper                 |                       | ●                             | ○          | × |
| ZLC    | Metal stopper                 |  | Retraction stroke end adjuster |                       | ○                             | ×          |   |
| ZLF    |                               |  | Metal stopper with bumper      |                       | ●                             | ○          | × |
| ZLF    | Extension stroke end adjuster |  | ●                              | ●                     | ○                             | ×          |   |

\*1 ●: Shipped together with the product, but not assembled

Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

\*2 The metal stopper with bumper is not available for ø6.

\*3 When mounting a retraction stroke end adjuster afterward, order the long adjustment bolt specifications (-X11). (A shock absorber cannot be used with this model.)

\*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

\*5 The extension stroke end adjuster with end lock mechanism is available as a long adjustment nut and bolt specification (-X28). However, the product number suffix (-X28) is not required.

ø6, ø8



### Made to Order

(For details, refer to pages 127 to 156.)

| Symbol | Functional option  |
|--------|--|
| -X33   | Without built-in auto switch magnet                          |
| -X42   | Anti-corrosive guide unit                                    |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

ø12 to ø25

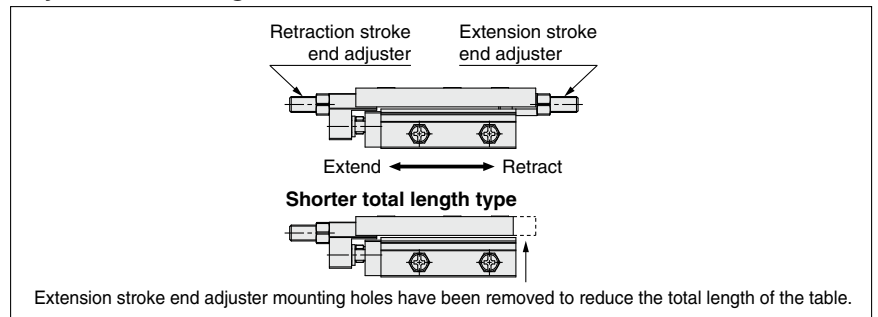


### Made to Order

(For details, refer to pages 127 to 156.)

| Symbol | Functional option  |
|--------|--|
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         |
| -X28   | Long adjustment nut and bolt                                 |
| -X33   | Without built-in auto switch magnet                          |
| -X42   | Anti-corrosive guide unit                                    |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

## Adjuster Mounting Position



## Weight

| Model  | Standard stroke [mm] |     |     |     |     |     | Reduction of the shorter total length type | Additional weight of adjuster option |                       |          |
|--------|----------------------|-----|-----|-----|-----|-----|--|--------------------------------------|-----------------------|----------|
|        | 10                   | 20  | 30  | 40  | 50  | 75  |  | Extension stroke end                 | Retraction stroke end | End lock |
|        | MXQ6AM               | 150 | 150 | 190 | 210 | 230 |  |                                      |                       |          |
| MXQ8AM | 160                  | 180 | 200 | 230 | 290 | 320 | -6   | 10                                   | 10                    | 60       |

\* ø12 to ø25: Same as the standard product

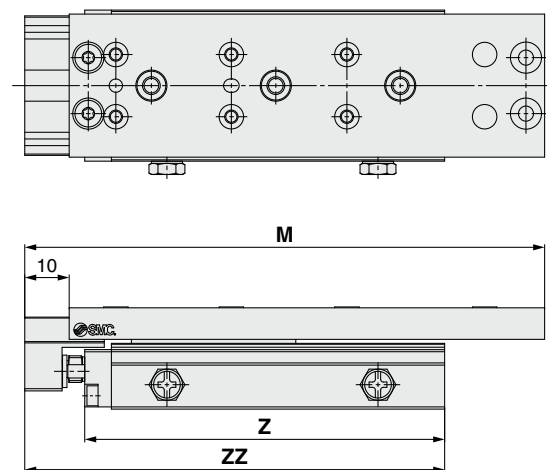
## Specifications

| Bore size [mm]             |                           | 6             | 8       | 12      | 16      | 20      | 25      |
|----------------------------|---------------------------|---------------|---------|---------|---------|---------|---------|
| Action                     |                           | Double acting |         |         |         |         |         |
| Minimum operating pressure | Internal rubber bumper    | 0.15 MPa      |         |         |         |         |         |
|                            | Rubber stopper            |               |         |         |         |         |         |
|                            | Metal stopper             |               |         |         |         |         |         |
|                            | Shock absorber            |               |         |         |         |         |         |
|                            | Metal stopper with bumper | —             | 0.3 MPa | 0.3 MPa | 0.2 MPa | 0.2 MPa | 0.2 MPa |

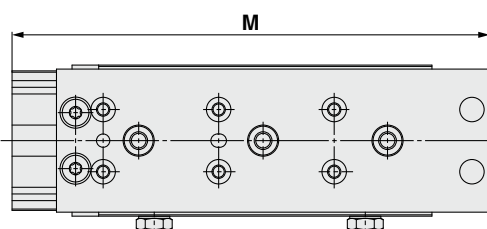
\* Specifications other than those listed above are the same as those for the standard type.

## Dimensions (Dimensions other than those shown below are the same as those for the standard type.)

### MXQ6AM

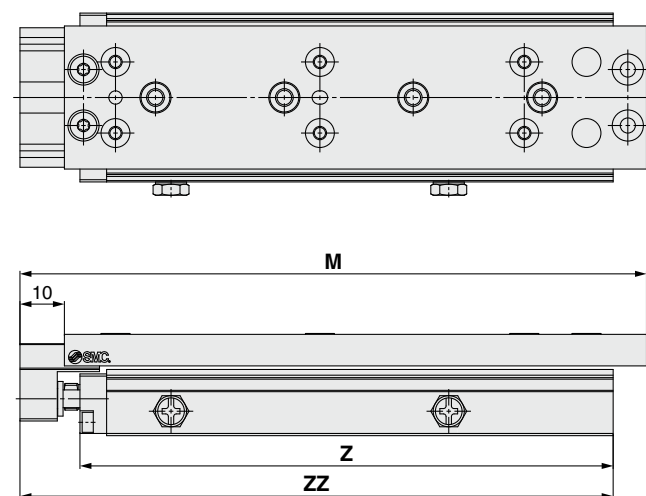


### Shorter total length type

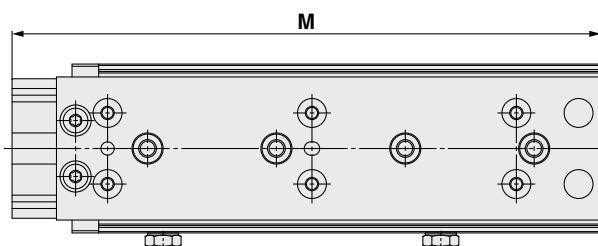


| Model      | M             |                           | Z  | ZZ    |
|------------|---------------|---------------------------|----|-------|
|            | Standard type | Shorter total length type |    |       |
| MXQ6AM-10Z | 74            | 64.5                      | 56 | 69.5  |
| MXQ6AM-20Z | 84            | 74.5                      | 56 | 69.5  |
| MXQ6AM-30Z | 105           | 95.5                      | 69 | 82.5  |
| MXQ6AM-40Z | 117           | 107.4                     | 81 | 94.5  |
| MXQ6AM-50Z | 127           | 117.5                     | 91 | 104.5 |

### MXQ8AM



### Shorter total length type



| Model      | M             |                           | Z   | ZZ    |
|------------|---------------|---------------------------|-----|-------|
|            | Standard type | Shorter total length type |     |       |
| MXQ8AM-10Z | 78            | 69.5                      | 57  | 70.5  |
| MXQ8AM-20Z | 88            | 79.5                      | 67  | 80.5  |
| MXQ8AM-30Z | 98            | 89.5                      | 77  | 90.5  |
| MXQ8AM-40Z | 114           | 105.5                     | 93  | 106.5 |
| MXQ8AM-50Z | 141           | 132.5                     | 120 | 133.5 |
| MXQ8AM-75Z | 166           | 157.5                     | 122 | 135.5 |

The external dimensions of the  $\phi 12$  to  $\phi 25$  sizes are the same as the standard product.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

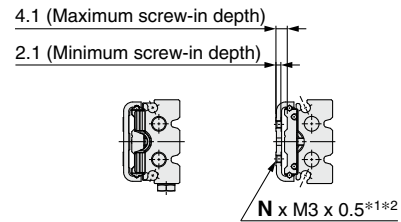
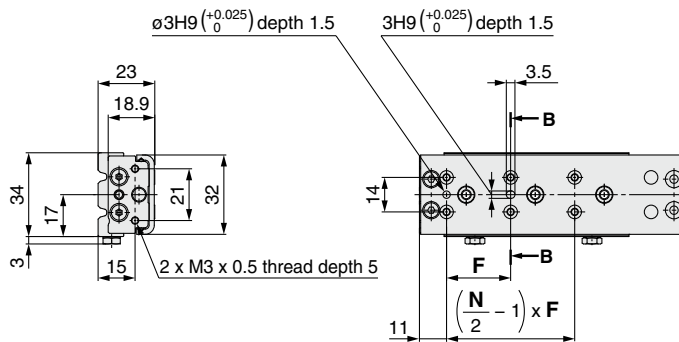
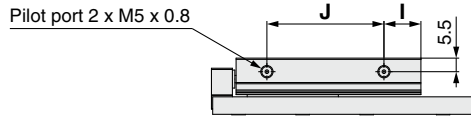
Made to Order

Model Selection

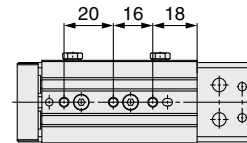
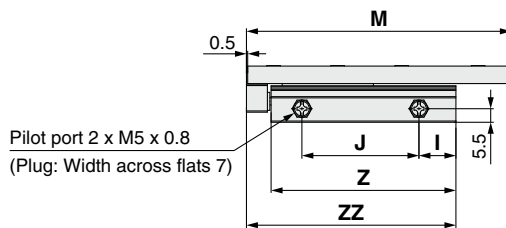
# MXQ□A Series

## Dimensions: MXQ **6A** [Standard]

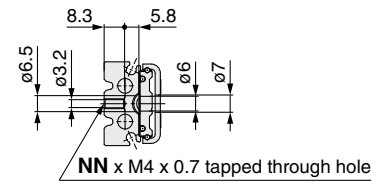
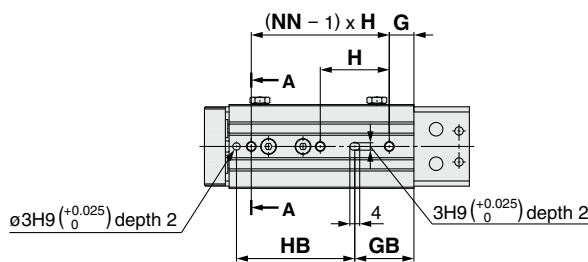
### MXQ **6A**-□Z Standard type



**Cross-sectional view B-B**



**Bottom view of MXQ6A-30Z**



**Cross-sectional view A-A**

### Dimensions

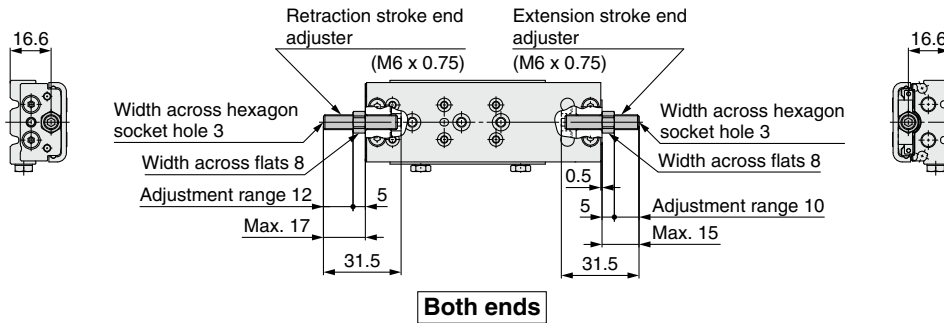
| Model     | F  | G  | GB | H  | HB | I  | J    | M     | N | NN | Z  | ZZ |
|-----------|----|----|----|----|----|----|------|-------|---|----|----|----|
| MXQ6A-10Z | 22 | 18 | 9  | 23 | 38 | 10 | 27.5 | 64.5  | 4 | 2  | 50 | 60 |
| MXQ6A-20Z | 25 | 15 | 9  | 26 | 38 | 10 | 27.5 | 74.5  | 4 | 2  | 50 | 60 |
| MXQ6A-30Z | 21 | —  | 12 | —  | 48 | 13 | 37.5 | 95.5  | 6 | 3  | 63 | 73 |
| MXQ6A-40Z | 26 | 10 | 24 | 28 | 48 | 15 | 47.5 | 107.5 | 6 | 3  | 75 | 85 |
| MXQ6A-50Z | 27 | 20 | 34 | 28 | 48 | 15 | 57.5 | 117.5 | 6 | 3  | 85 | 95 |

- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

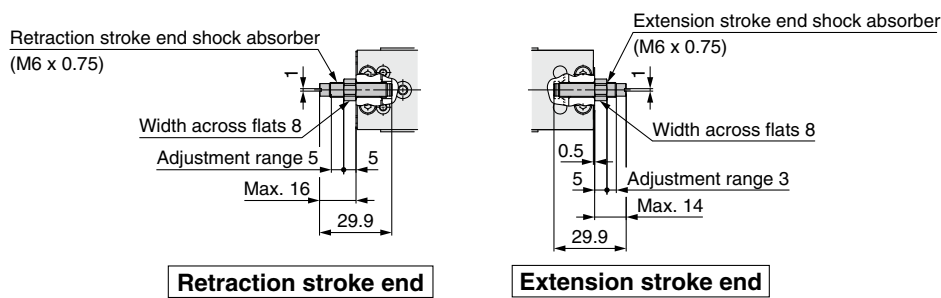
Dimensions: MXQ **6A** [Adjuster Option]

MXQ **6A**-□ With adjuster option (ø6)

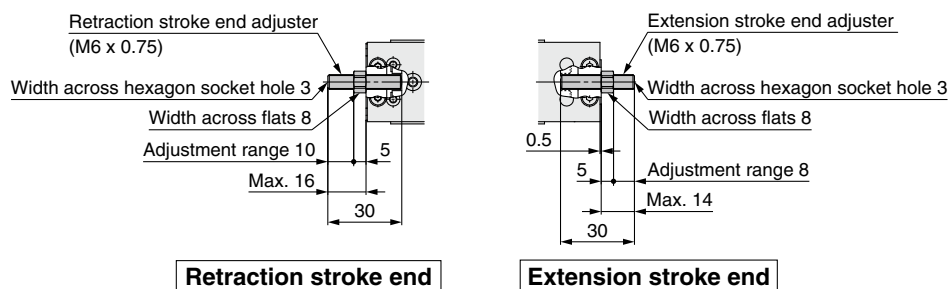
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

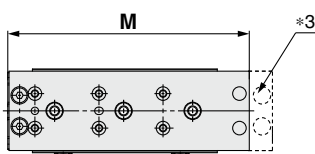


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A**-□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ6A-10ZN      | 55  |
| MXQ6A-20ZN      | 65  |
| MXQ6A-30ZN      | 86  |
| MXQ6A-40ZN      | 98  |
| MXQ6A-50ZN      | 108 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

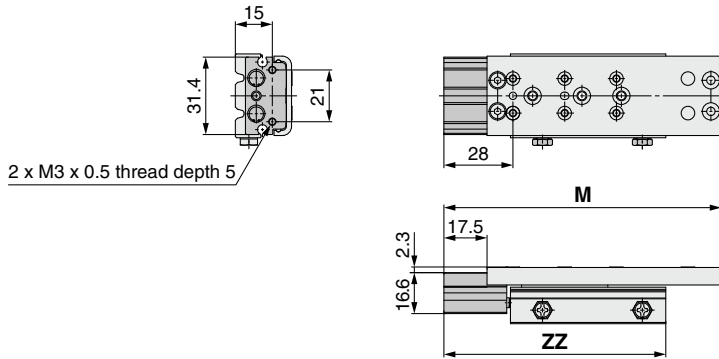
Made to Order

Model Selection

# MXQ□A Series

## Dimensions: MXQ **6A** [Functional Option]

### MXQ **6A**-□□1 With buffer (ø6)

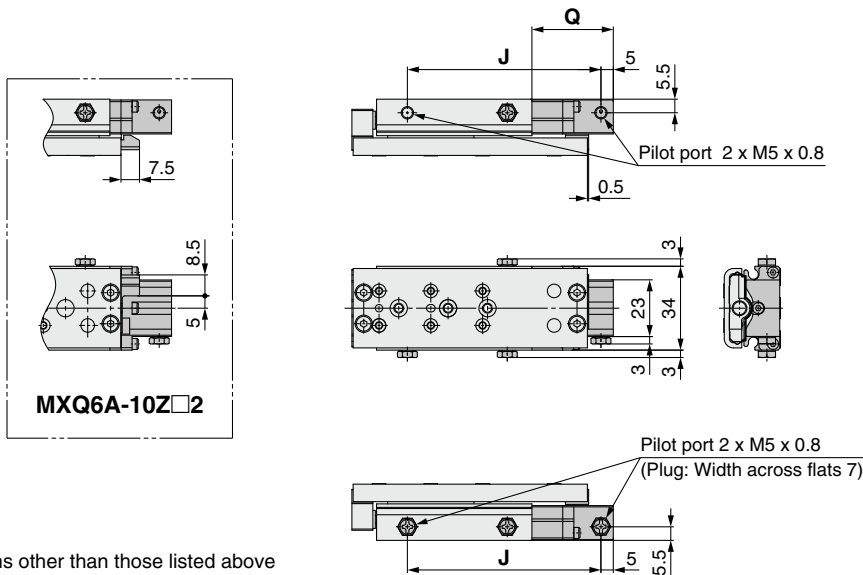


#### Dimensions [mm]

| Model       | Standard type |                           | ZZ  |
|-------------|---------------|---------------------------|-----|
|             | M             | Shorter total length type |     |
| MXQ6A-10Z□1 | 81.5          | 72                        | 77  |
| MXQ6A-20Z□1 | 91.5          | 82                        |     |
| MXQ6A-30Z□1 | 112.5         | 103                       | 90  |
| MXQ6A-40Z□1 | 124.5         | 115                       | 102 |
| MXQ6A-50Z□1 | 134.5         | 125                       | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **6A**-□□2 With end lock (ø6)



#### Dimensions [mm]

| Model       | Standard type |    |
|-------------|---------------|----|
|             | J             | Q  |
| MXQ6A-10Z□2 | 57.5          | 25 |
| MXQ6A-20Z□2 |               |    |
| MXQ6A-30Z□2 | 78.5          | 33 |
| MXQ6A-40Z□2 | 90.5          |    |
| MXQ6A-50Z□2 | 100.5         |    |

\* Dimensions other than those listed above are the same as those for the standard type.

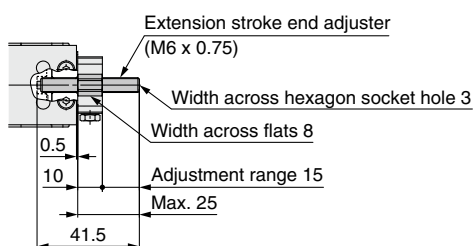
### MXQ **6A**-□□2 With end lock, extension stroke end adjuster (ø6)

Select the long adjustment nut and bolt specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

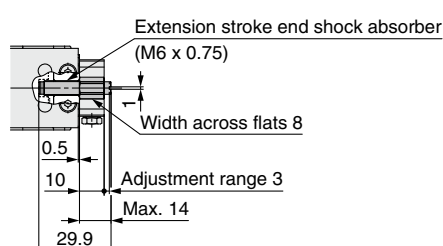
| Type                  | Adjuster part no. | Single adjustment bolt part no.*1 |
|-----------------------|-------------------|-----------------------------------|
| Rubber stopper: ZE    | MXQA-AT8-X28      | MXQA-A827-X11                     |
| Shock absorber/RJ: ZH | MXQA-JT8-X28      | RJ0603N                           |
| Metal stopper: ZL     | MXQA-DT8-X28      | MXQA-A838-X11                     |

\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

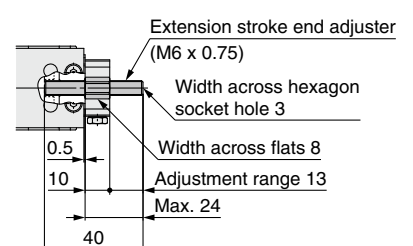
#### Rubber stopper: **ZE**



#### Shock absorber/RJ: **ZH**



#### Metal stopper: **ZL**

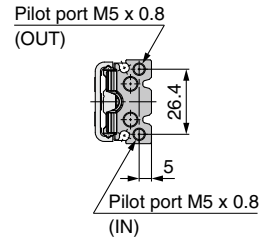
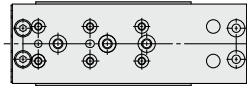


\* Dimensions other than those listed above are the same as those for the standard type.



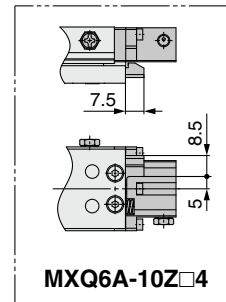
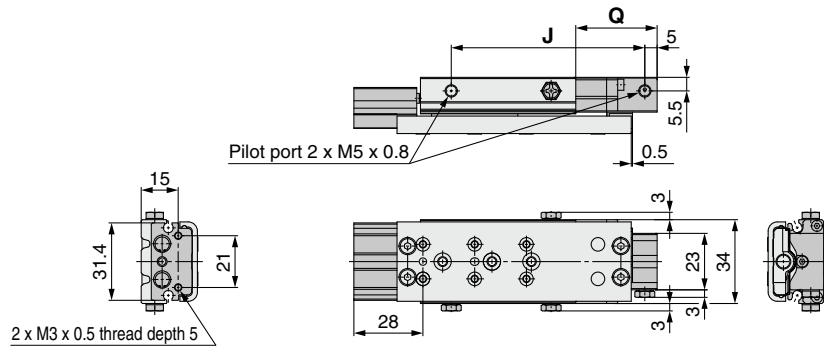
Dimensions: MXQ **6A** [Functional Option]

MXQ **6A-□□3** Axial piping (ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A-□□4** With buffer, end lock (ø6)

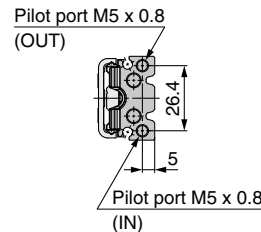
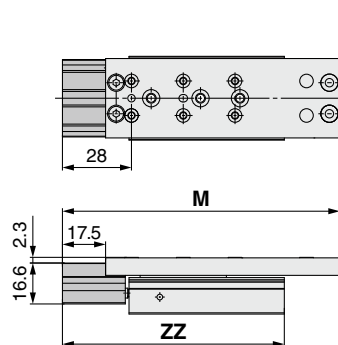
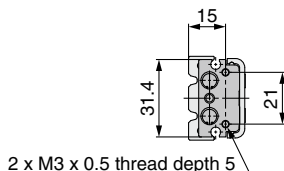


**Dimensions** [mm]

| Model       | J     | Q  | Standard type | Shorter total length type | ZZ  |
|-------------|-------|----|---------------|---------------------------|-----|
|             |       |    | M             | M                         |     |
| MXQ6A-10Z□4 | 57.5  | 25 | 81.5          | 72                        | 77  |
| MXQ6A-20Z□4 |       |    | 91.5          | 82                        |     |
| MXQ6A-30Z□4 | 78.5  | 33 | 112.5         | 103                       | 90  |
| MXQ6A-40Z□4 | 90.5  |    | 124.5         | 115                       | 102 |
| MXQ6A-50Z□4 | 100.5 |    | 134.5         | 125                       | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6A-□□5** With buffer, axial piping (ø6)



**Dimensions** [mm]

| Model       | Standard type | Shorter total length type | ZZ  |
|-------------|---------------|---------------------------|-----|
|             | M             | M                         |     |
| MXQ6A-10Z□5 | 81.5          | 72                        | 77  |
| MXQ6A-20Z□5 | 91.5          | 82                        |     |
| MXQ6A-30Z□5 | 112.5         | 103                       | 90  |
| MXQ6A-40Z□5 | 124.5         | 115                       | 102 |
| MXQ6A-50Z□5 | 134.5         | 125                       | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

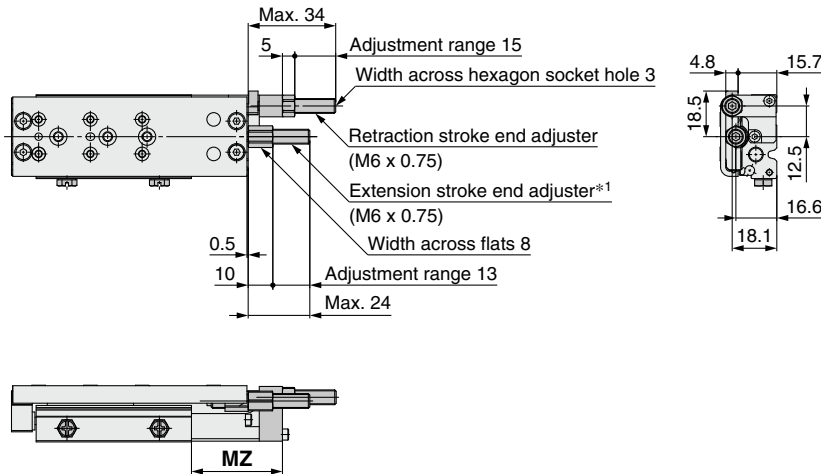
# MXQ□A Series

## Dimensions: MXQ **6A** [Functional Option]

### MXQ **6A**-□□**6** Centralized adjuster (∅6)

Metal stopper **ZK**: Both ends,  
**ZM**: Retraction stroke end

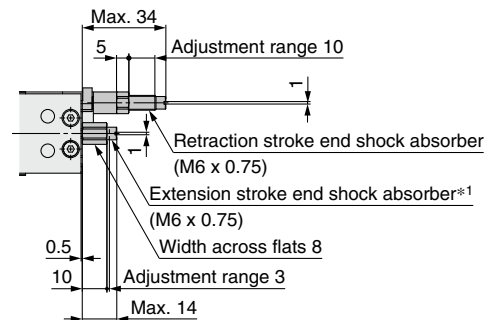
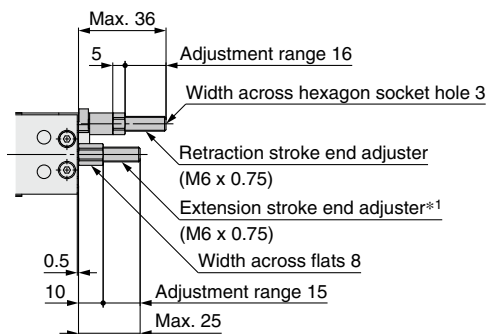
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ6A-10Z□6     | 18.9 |
| MXQ6A-20Z□6     | 28.9 |
| MXQ6A-30Z□6     |      |
| MXQ6A-40Z□6     | 36.9 |
| MXQ6A-50Z□6     |      |

Rubber stopper **ZD**: Both ends,  
**ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends,  
**ZJ**: Retraction stroke end

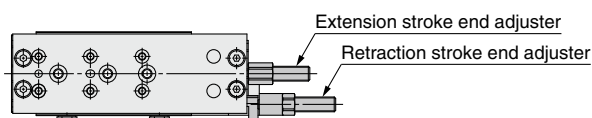


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ **6A**-□□**7** Centralized adjuster / Symmetric type (∅6)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

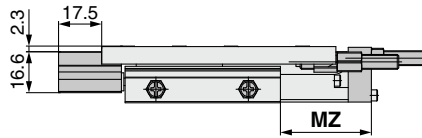
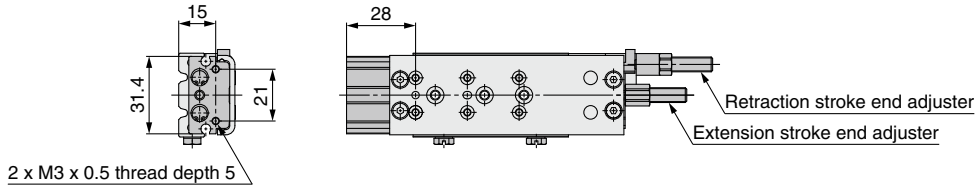


\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **6A** [Functional Option]

**MXQ 6A-□□8** Buffer, Centralized adjuster (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

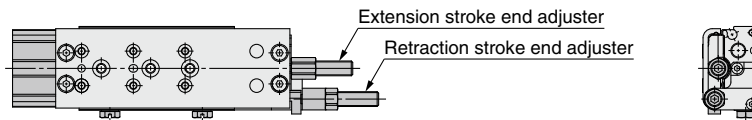


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ6A-10Z□6     | 18.9 |
| MXQ6A-20Z□6     | 28.9 |
| MXQ6A-30Z□6     | 36.9 |
| MXQ6A-40Z□6     |      |
| MXQ6A-50Z□6     |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

**MXQ 6A-□□9** Buffer, Centralized adjuster / Symmetric type (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.  
The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

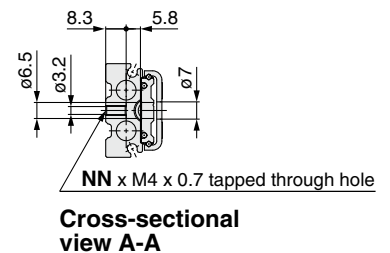
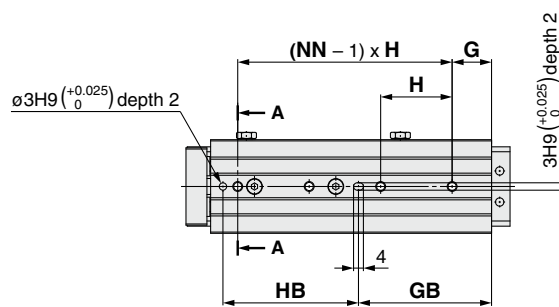
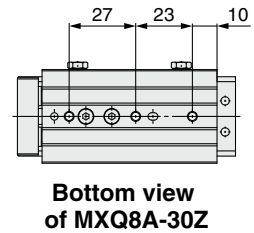
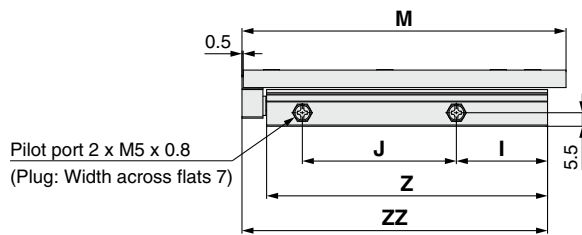
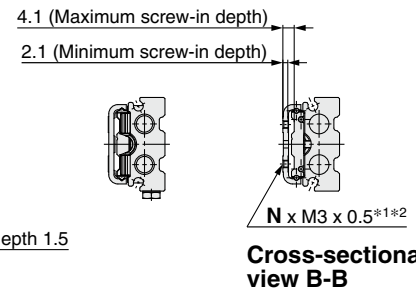
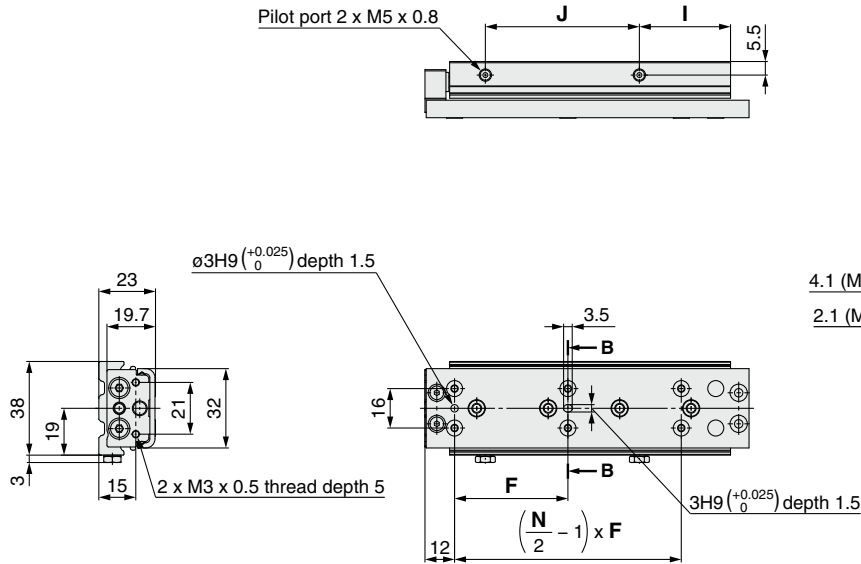
Model Selection

# MXQ□A Series

## Dimensions: MXQ **8A** [Standard]

### MXQ **8A**-□Z Standard type

- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

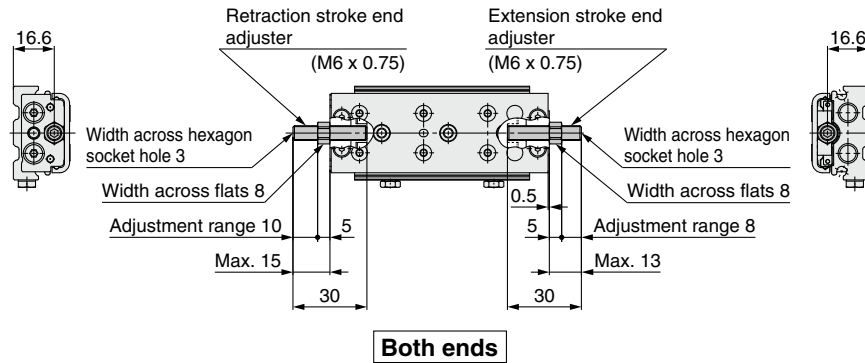
| Model     | F  | G  | GB | H  | HB | I    | J    | M     | N | NN | Z   | ZZ  |
|-----------|----|----|----|----|----|------|------|-------|---|----|-----|-----|
| MXQ8A-10Z | 25 | 15 | 9  | 25 | 37 | 10   | 26.5 | 68.5  | 4 | 2  | 51  | 61  |
| MXQ8A-20Z | 25 | 22 | 16 | 28 | 40 | 14   | 32.5 | 78.5  | 4 | 2  | 61  | 71  |
| MXQ8A-30Z | 26 | —  | 26 | —  | 40 | 14.5 | 42   | 88.5  | 6 | 3  | 71  | 81  |
| MXQ8A-40Z | 32 | 14 | 27 | 31 | 55 | 20   | 52.5 | 104.5 | 6 | 3  | 87  | 97  |
| MXQ8A-50Z | 46 | 16 | 54 | 29 | 55 | 37   | 62.5 | 131.5 | 6 | 4  | 114 | 124 |
| MXQ8A-75Z | 50 | 15 | 56 | 30 | 55 | 10   | 91.5 | 156.5 | 6 | 4  | 116 | 126 |

Dimensions: MXQ **8A** [Adjuster Option]

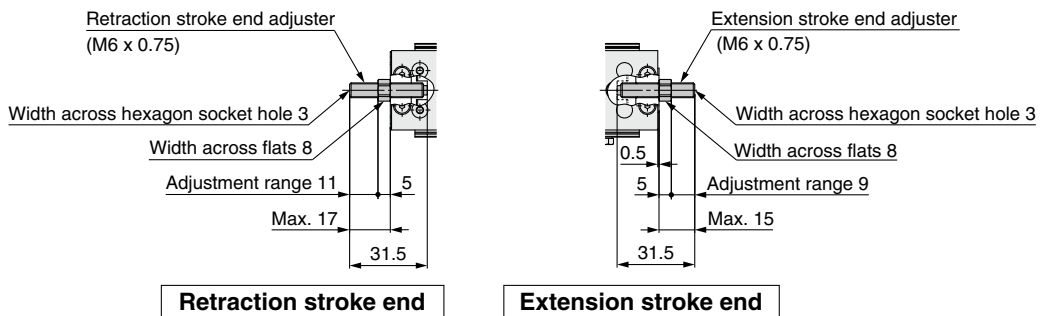
MXQ **8A**-□ □ With adjuster option (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

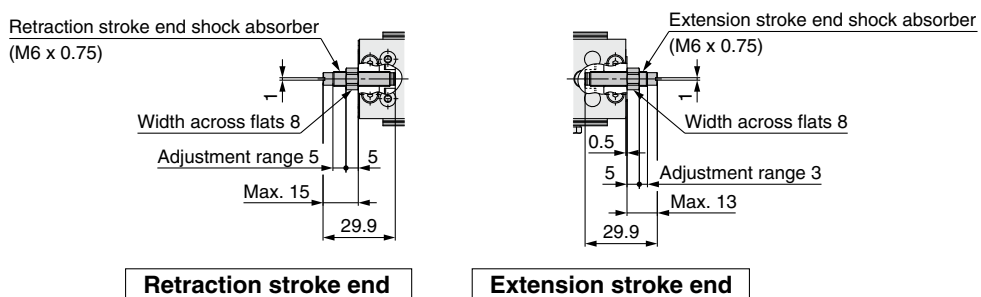
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

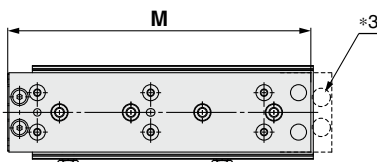


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8A**-□ **ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ8A-10ZN      | 60  |
| MXQ8A-20ZN      | 70  |
| MXQ8A-30ZN      | 80  |
| MXQ8A-40ZN      | 96  |
| MXQ8A-50ZN      | 123 |
| MXQ8A-75ZN      | 148 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

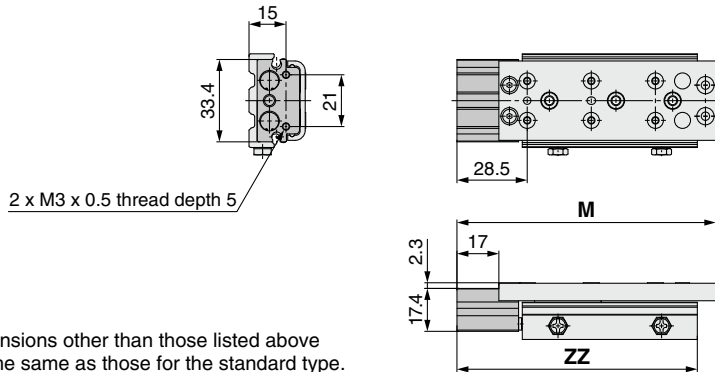
Model Selection



# MXQ□A Series

## Dimensions: MXQ **8A** [Functional Option]

### MXQ **8A**-□□1 With buffer (ø8)

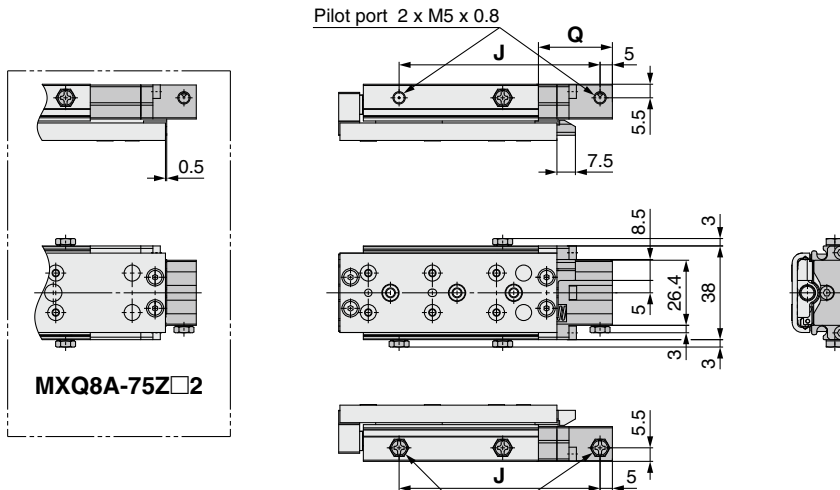


\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions [mm]

| Model       | Standard type | Shorter total length type | ZZ    |
|-------------|---------------|---------------------------|-------|
|             | M             | M                         |       |
| MXQ8A-10Z□1 | 85            | 76.5                      | 77.5  |
| MXQ8A-20Z□1 | 95            | 86.5                      | 87.5  |
| MXQ8A-30Z□1 | 105           | 96.5                      | 97.5  |
| MXQ8A-40Z□1 | 121           | 112.5                     | 113.5 |
| MXQ8A-50Z□1 | 148           | 139.5                     | 140.5 |
| MXQ8A-75Z□1 | 173           | 164.5                     | 142.5 |

### MXQ **8A**-□□2 With end lock (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions [mm]

| Model       | J     | Q  |
|-------------|-------|----|
| MXQ8A-10Z□2 | 61.5  | 30 |
| MXQ8A-20Z□2 | 71.5  |    |
| MXQ8A-30Z□2 | 81.5  |    |
| MXQ8A-40Z□2 | 97.5  |    |
| MXQ8A-50Z□2 | 124.5 |    |
| MXQ8A-75Z□2 | 139.5 | 43 |

### MXQ **8A**-□□2 With end lock, extension stroke end adjuster (ø8)

Select the long adjustment nut and bolt specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT8-X28      | MXQA-A887-X11                     |
| Rubber stopper: ZE            | MXQA-AT8-X28      | MXQA-A827-X11                     |
| Shock absorber/RJ: ZH         | MXQA-JT8-X28      | RJ0603N                           |
| Metal stopper: ZL             | MXQA-DT8-X28      | MXQA-A838-X11                     |

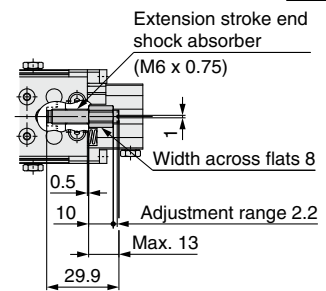
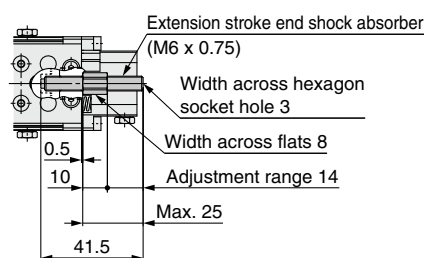
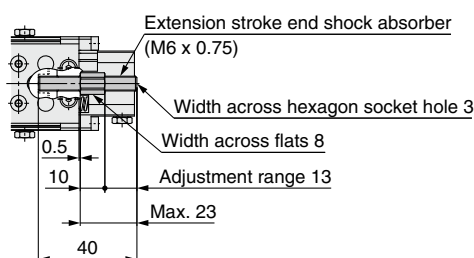
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

#### Metal stopper: **ZL**

#### Rubber stopper: **ZE**

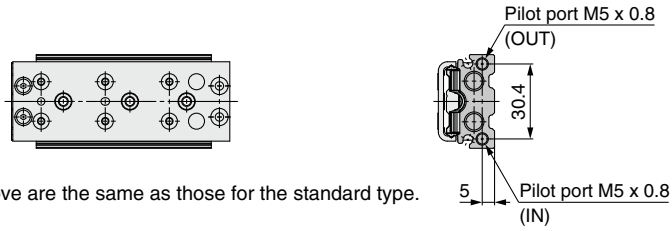
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

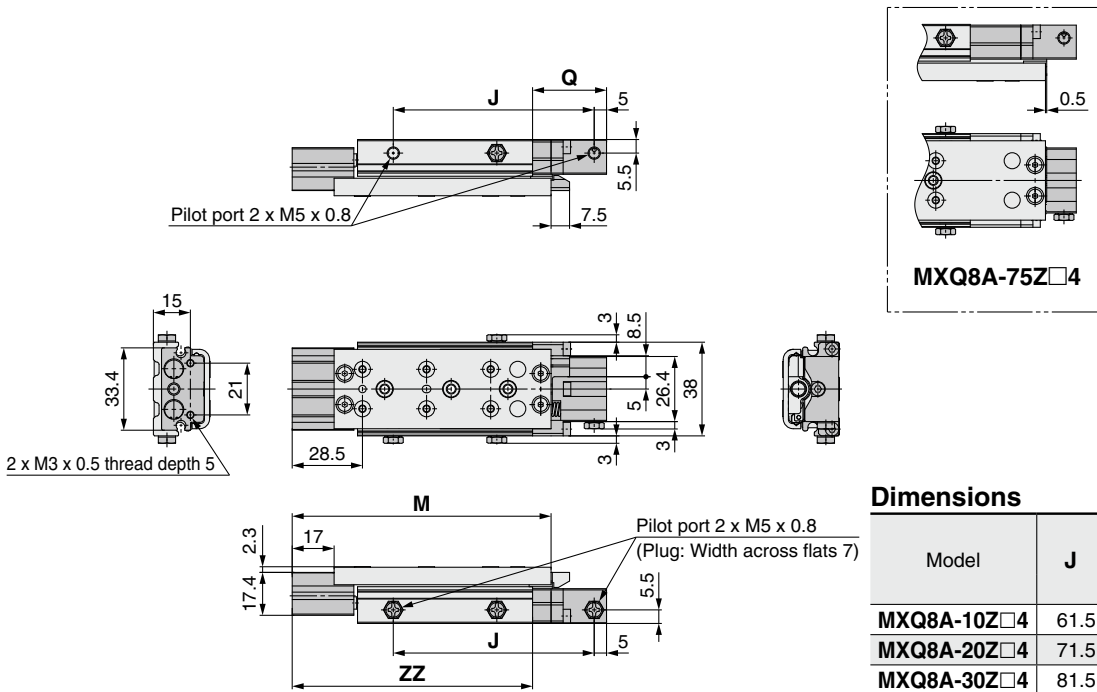
Dimensions: MXQ **8A** [Functional Option]

MXQ **8A-□□3** Axial piping (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8A-□□4** With buffer, end lock (ø8)

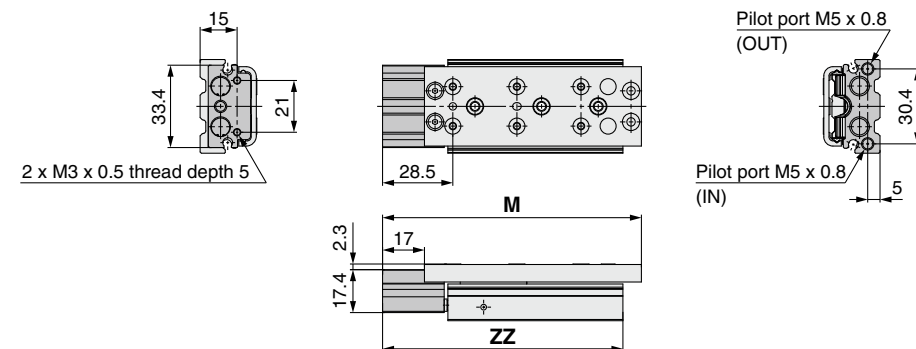


\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions**

| Model       | J     | Q  | Standard type |       | ZZ    |
|-------------|-------|----|---------------|-------|-------|
|             |       |    | M             | M     |       |
| MXQ8A-10Z□4 | 61.5  | 30 | 85            | 76.5  | 77.5  |
| MXQ8A-20Z□4 | 71.5  |    | 95            | 86.5  | 87.5  |
| MXQ8A-30Z□4 | 81.5  |    | 105           | 96.5  | 97.5  |
| MXQ8A-40Z□4 | 97.5  |    | 121           | 112.5 | 113.5 |
| MXQ8A-50Z□4 | 124.5 |    | 148           | 139.5 | 140.5 |
| MXQ8A-75Z□4 | 139.5 | 43 | 173           | 164.5 | 142.5 |

MXQ **8A-□□5** With buffer, axial piping (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions**

| Model       | Standard type |       | ZZ    |
|-------------|---------------|-------|-------|
|             | M             | M     |       |
| MXQ8A-10Z□5 | 85            | 76.5  | 77.5  |
| MXQ8A-20Z□5 | 95            | 86.5  | 87.5  |
| MXQ8A-30Z□5 | 105           | 96.5  | 97.5  |
| MXQ8A-40Z□5 | 121           | 112.5 | 113.5 |
| MXQ8A-50Z□5 | 148           | 139.5 | 140.5 |
| MXQ8A-75Z□5 | 173           | 164.5 | 142.5 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ□A Series

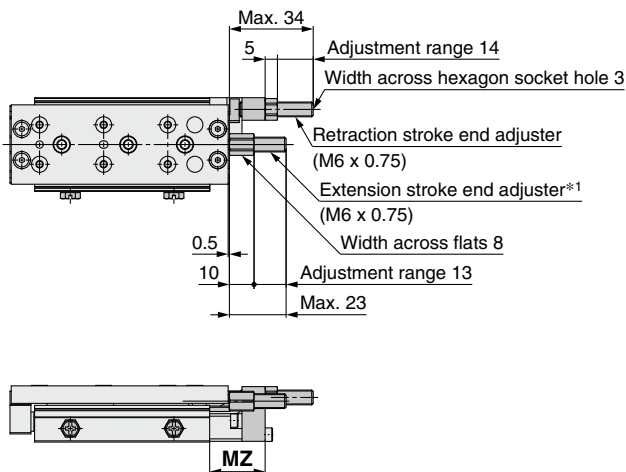
## Dimensions: MXQ **8A** [Functional Option]

### MXQ **8A**-□□**6** Centralized adjuster (∅8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

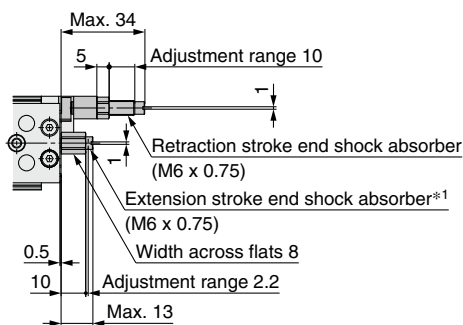
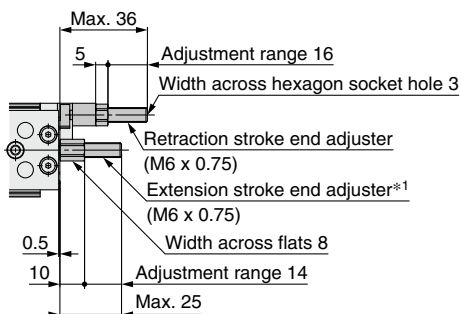
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8A-10Z□6     | 22.5 |
| MXQ8A-20Z□6     |      |
| MXQ8A-30Z□6     |      |
| MXQ8A-40Z□6     |      |
| MXQ8A-50Z□6     | 46.5 |
| MXQ8A-75Z□6     |      |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

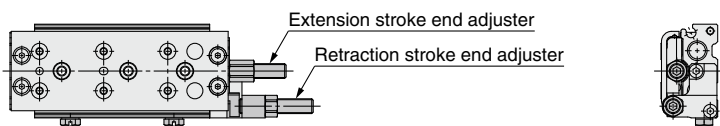


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ **8A**-□□**7** Centralized adjuster / Symmetric type (∅8)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



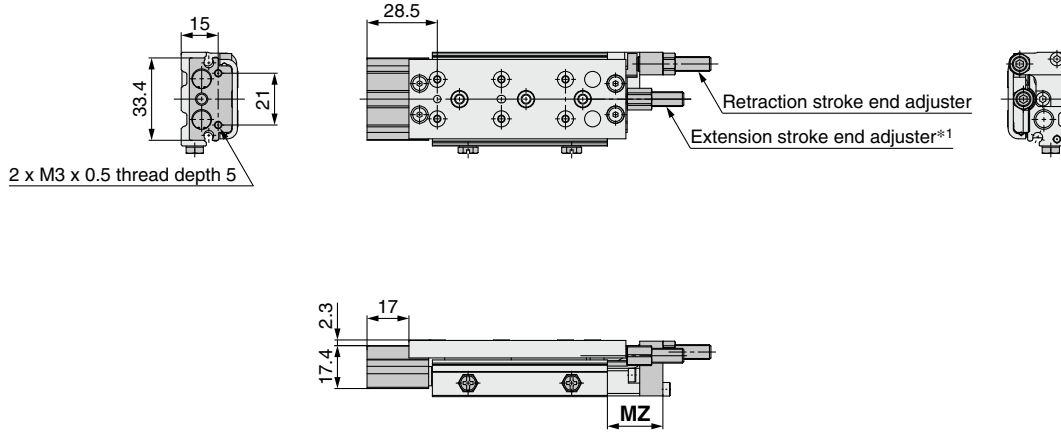
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

# Dimensions: MXQ **8A** [Functional Option]

## MXQ **8A**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

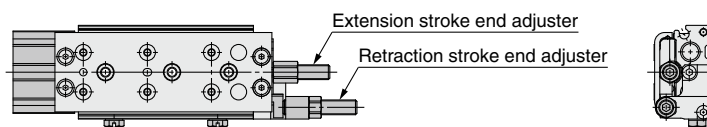


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8A-10Z□6     | 22.5 |
| MXQ8A-20Z□6     |      |
| MXQ8A-30Z□6     |      |
| MXQ8A-40Z□6     |      |
| MXQ8A-50Z□6     | 46.5 |
| MXQ8A-75Z□6     |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

## MXQ **8A**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

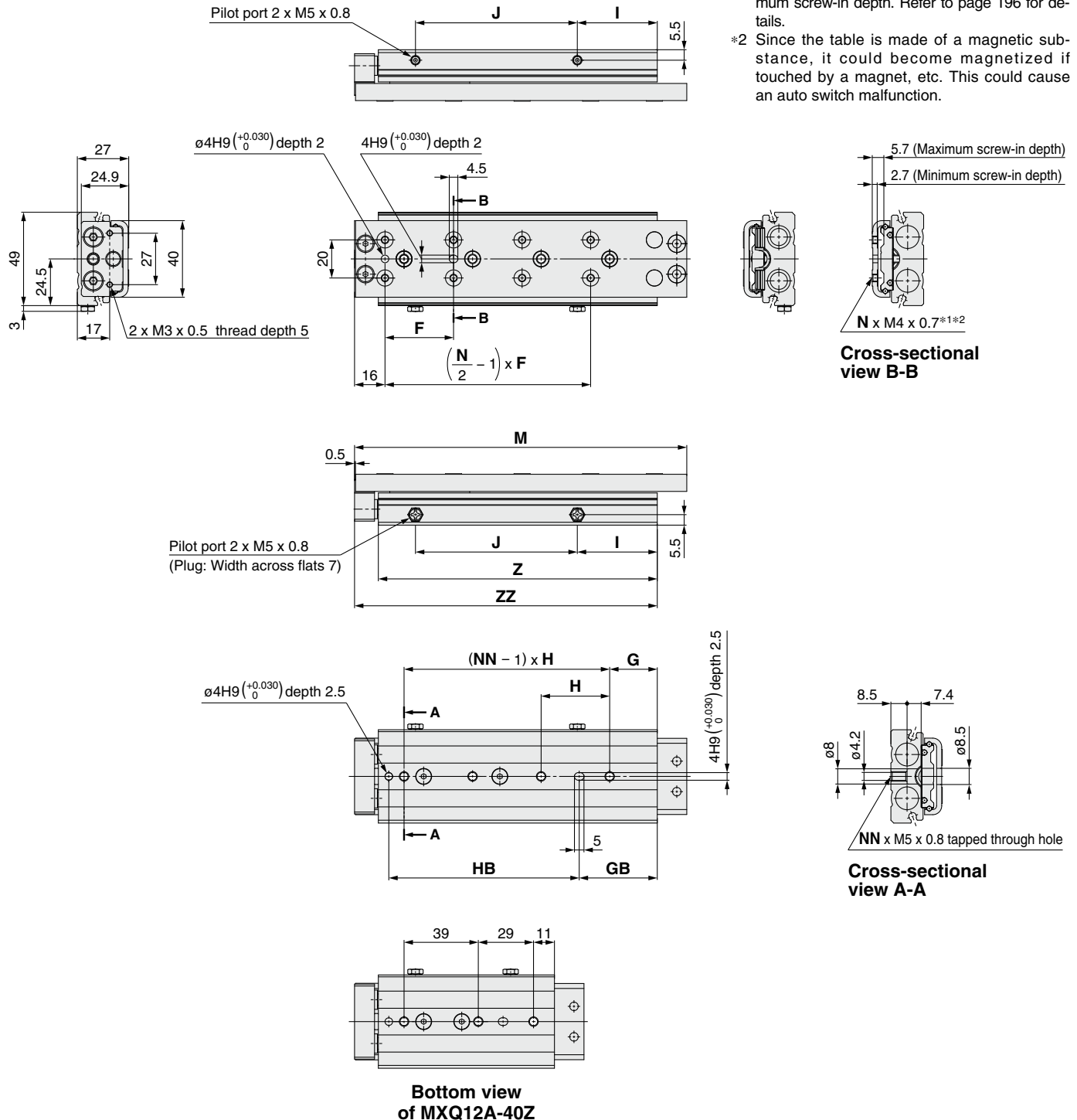
Model Selection

# MXQ□A Series

## Dimensions: MXQ **12A** [Standard]

### MXQ 12A-□Z Standard type

- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



**Cross-sectional view B-B**

**Cross-sectional view A-A**

**Bottom view of MXQ12A-40Z**

### Dimensions

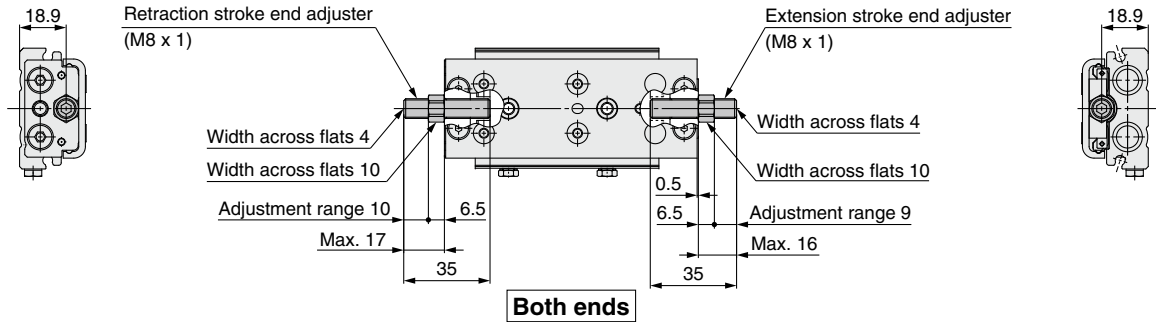
| Model       | F  | G  | GB | H  | HB  | I  | J   | M     | N  | NN | Z     | ZZ  |
|-------------|----|----|----|----|-----|----|-----|-------|----|----|-------|-----|
| MXQ12A-10Z  | 28 | 17 | 11 | 32 | 46  | 11 | 32  | 82.5  | 4  | 2  | 62.5  | 75  |
| MXQ12A-20Z  | 28 | 19 | 11 | 32 | 48  | 13 | 32  | 92.5  | 4  | 2  | 64.5  | 77  |
| MXQ12A-30Z  | 38 | 21 | 11 | 40 | 58  | 15 | 40  | 102.5 | 4  | 2  | 74.5  | 87  |
| MXQ12A-40Z  | 34 | —  | 27 | —  | 60  | 23 | 50  | 120.5 | 6  | 3  | 92.5  | 105 |
| MXQ12A-50Z  | 34 | 11 | 37 | 39 | 60  | 23 | 60  | 130.5 | 6  | 3  | 102.5 | 115 |
| MXQ12A-75Z  | 36 | 25 | 41 | 36 | 100 | 42 | 85  | 174.5 | 8  | 4  | 146.5 | 159 |
| MXQ12A-100Z | 36 | 14 | 66 | 36 | 100 | 42 | 110 | 199.5 | 10 | 5  | 171.5 | 184 |

# Dimensions: MXQ **12A** [Adjuster Option]

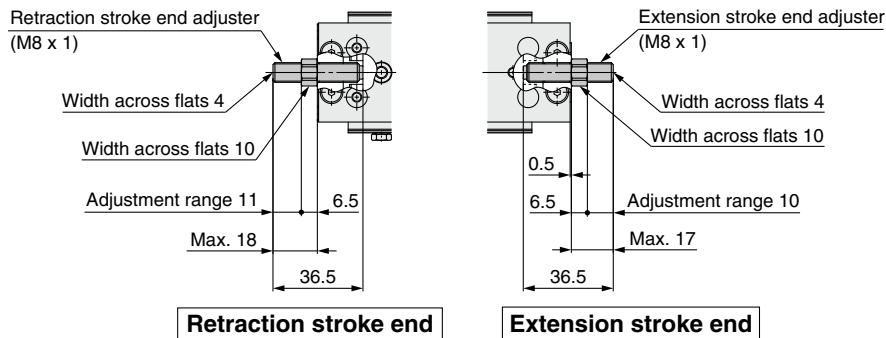
## MXQ 12A-□□□□ With adjuster option (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

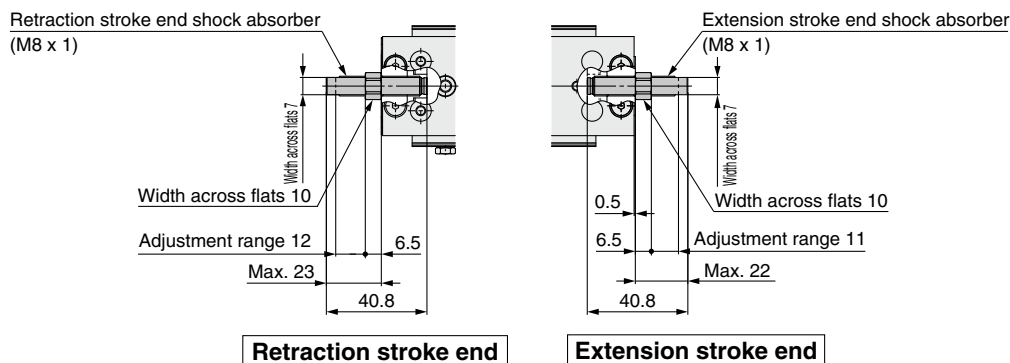
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

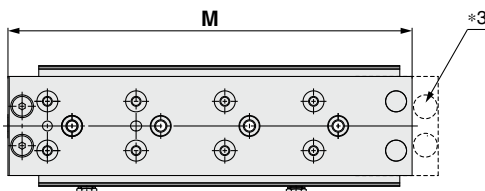


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 12A-□□ZN Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ12A-10ZN     | 72  |
| MXQ12A-20ZN     | 82  |
| MXQ12A-30ZN     | 92  |
| MXQ12A-40ZN     | 110 |
| MXQ12A-50ZN     | 120 |
| MXQ12A-75ZN     | 164 |
| MXQ12A-100ZN    | 189 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

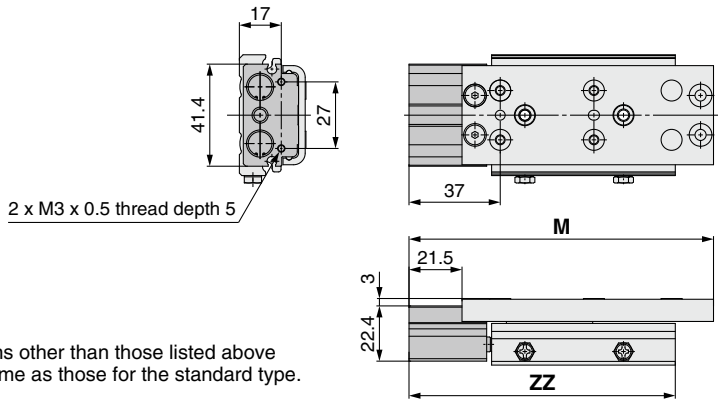
Model Selection



# MXQ□A Series

## Dimensions: MXQ **12A** [Functional Option]

### MXQ 12A-□□1 With buffer (ø12)

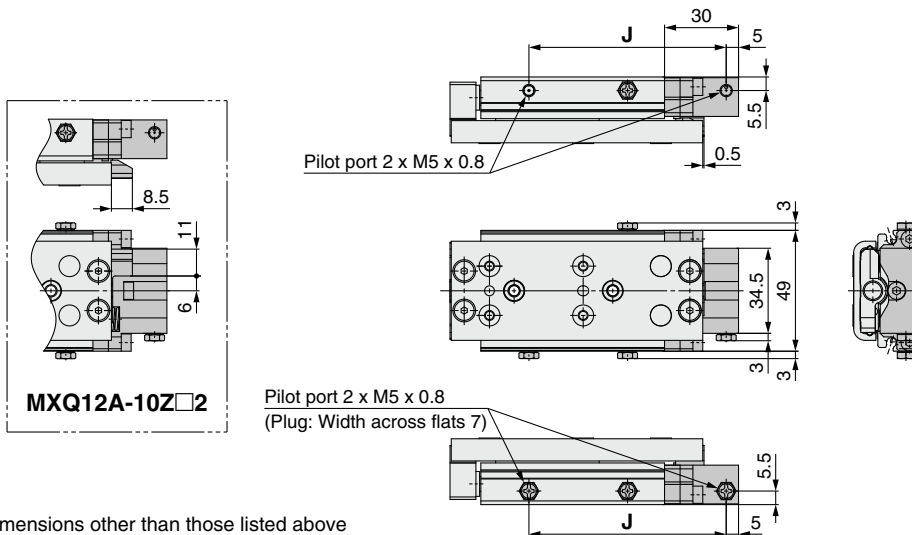


#### Dimensions [mm]

| Model         | Standard type | Shorter total length type | ZZ  |
|---------------|---------------|---------------------------|-----|
|               | M             | M                         |     |
| MXQ12A-10Z□1  | 103.5         | 93                        | 96  |
| MXQ12A-20Z□1  | 113.5         | 103                       | 98  |
| MXQ12A-30Z□1  | 123.5         | 113                       | 108 |
| MXQ12A-40Z□1  | 141.5         | 131                       | 126 |
| MXQ12A-50Z□1  | 151.5         | 141                       | 136 |
| MXQ12A-75Z□1  | 195.5         | 185                       | 180 |
| MXQ12A-100Z□1 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 12A-□□2 With end lock (ø12)



#### Dimensions [mm]

| Model         | J   |
|---------------|-----|
| MXQ12A-10Z□2  | 68  |
| MXQ12A-20Z□2  | 70  |
| MXQ12A-30Z□2  | 80  |
| MXQ12A-40Z□2  | 98  |
| MXQ12A-50Z□2  | 108 |
| MXQ12A-75Z□2  | 152 |
| MXQ12A-100Z□2 | 177 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 12A-□□2 With end lock, extension stroke end adjuster (ø12)

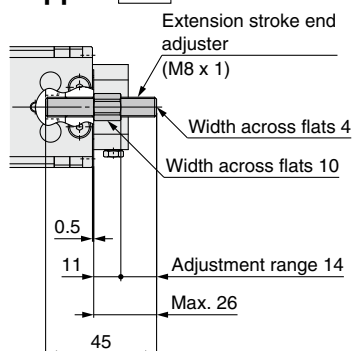
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT12-X28     | MXQA-A1287-X11                    |
| Rubber stopper: ZE            | MXQA-AT12-X28     | MXQA-A1227-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT12-X28     | RJ0805U-X2300                     |
| Metal stopper: ZL             | MXQA-DT12-X28     | MXQA-A1238-X11                    |

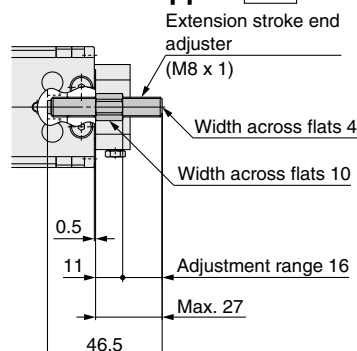
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

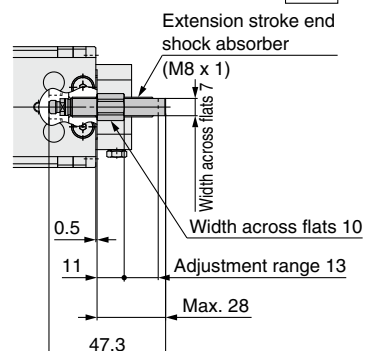
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



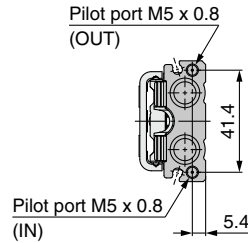
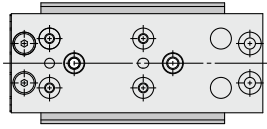
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

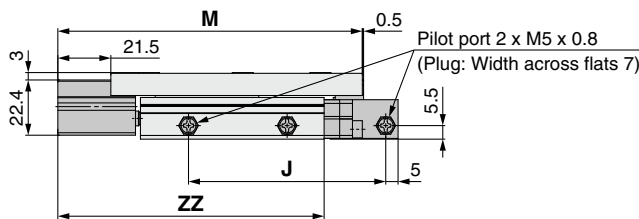
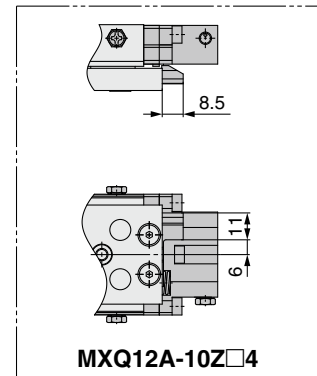
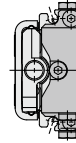
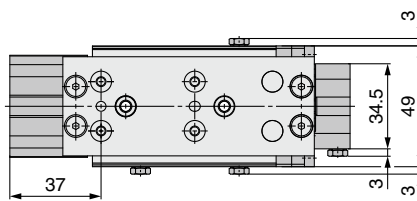
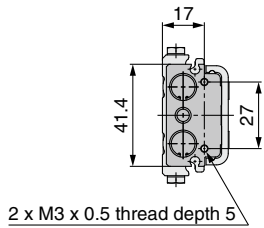
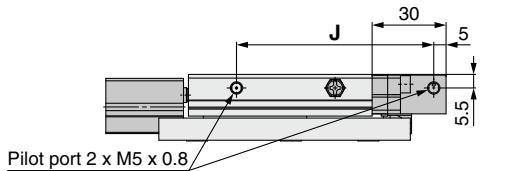
Dimensions: MXQ **12A** [Functional Option]

MXQ **12A-□□3** Axial piping (ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

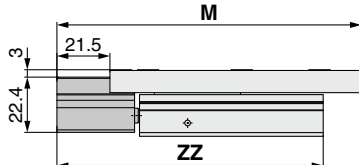
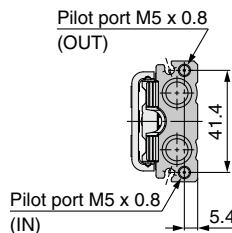
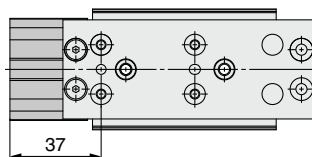
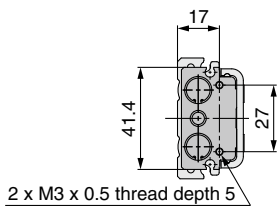
MXQ **12A-□□4** With buffer, end lock (ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

| Model         | J   | Dimensions [mm] |                           |     |
|---------------|-----|-----------------|---------------------------|-----|
|               |     | Standard type   | Shorter total length type | ZZ  |
|               |     | M               | M                         |     |
| MXQ12A-10Z□4  | 68  | 103.5           | 93                        | 96  |
| MXQ12A-20Z□4  | 70  | 113.5           | 103                       | 98  |
| MXQ12A-30Z□4  | 80  | 123.5           | 113                       | 108 |
| MXQ12A-40Z□4  | 98  | 141.5           | 131                       | 126 |
| MXQ12A-50Z□4  | 108 | 151.5           | 141                       | 136 |
| MXQ12A-75Z□4  | 152 | 195.5           | 185                       | 180 |
| MXQ12A-100Z□4 | 177 | 220.5           | 210                       | 205 |

MXQ **12A-□□5** With buffer, axial piping (ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

| Model         | Dimensions [mm] |                           |     |
|---------------|-----------------|---------------------------|-----|
|               | Standard type   | Shorter total length type | ZZ  |
|               | M               | M                         |     |
| MXQ12A-10Z□5  | 103.5           | 93                        | 96  |
| MXQ12A-20Z□5  | 113.5           | 103                       | 98  |
| MXQ12A-30Z□5  | 123.5           | 113                       | 108 |
| MXQ12A-40Z□5  | 141.5           | 131                       | 126 |
| MXQ12A-50Z□5  | 151.5           | 141                       | 136 |
| MXQ12A-75Z□5  | 195.5           | 185                       | 180 |
| MXQ12A-100Z□5 | 220.5           | 210                       | 205 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ□A Series

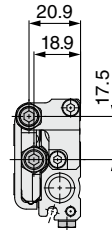
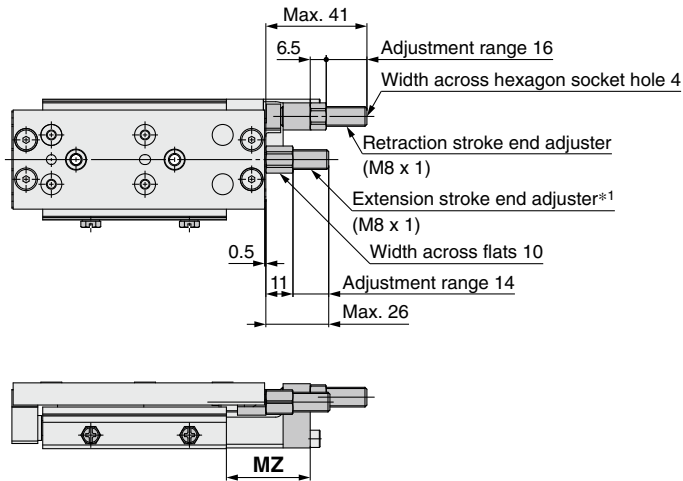
## Dimensions: MXQ **12A** [Functional Option]

### MXQ 12A-□□6 Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

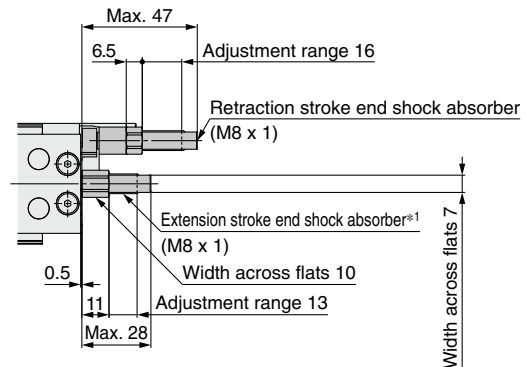
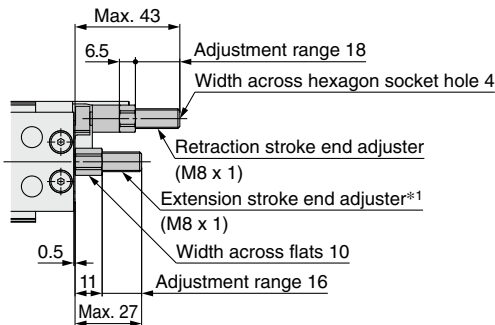
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12A-10Z□6    | 26 |
| MXQ12A-20Z□6    | 34 |
| MXQ12A-30Z□6    |    |
| MXQ12A-40Z□6    |    |
| MXQ12A-50Z□6    |    |
| MXQ12A-75Z□6    |    |
| MXQ12A-100Z□6   |    |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

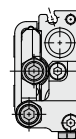
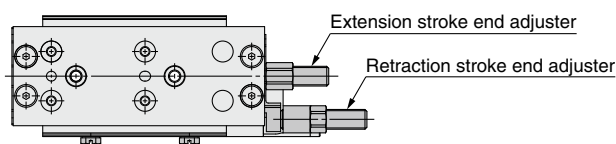


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ 12A-□□7 Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



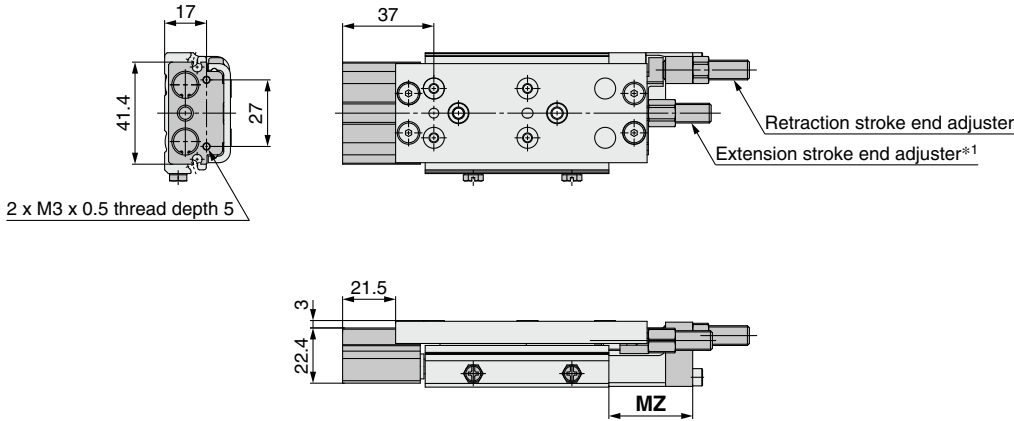
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

# Dimensions: MXQ **12A** [Functional Option]

## MXQ 12A-□□8 Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

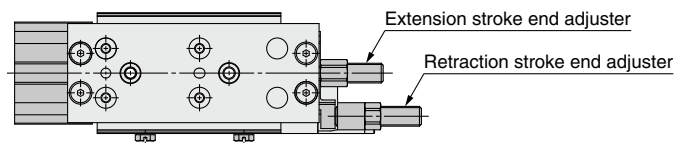


| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12A-10Z□8    | 26 |
| MXQ12A-20Z□8    | 34 |
| MXQ12A-30Z□8    |    |
| MXQ12A-40Z□8    |    |
| MXQ12A-50Z□8    |    |
| MXQ12A-75Z□8    |    |
| MXQ12A-100Z□8   |    |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

## MXQ 12A-□□9 Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

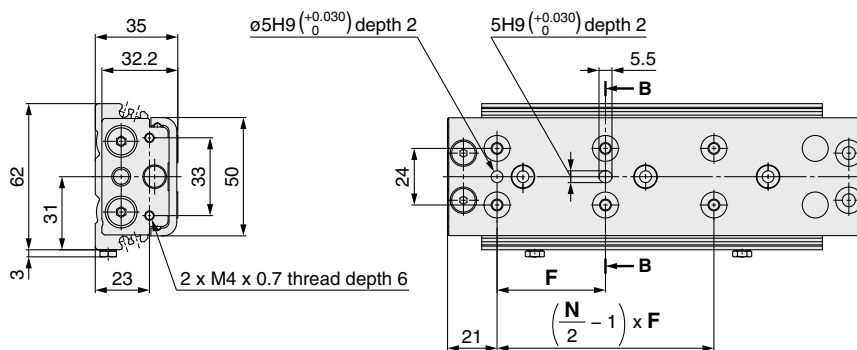
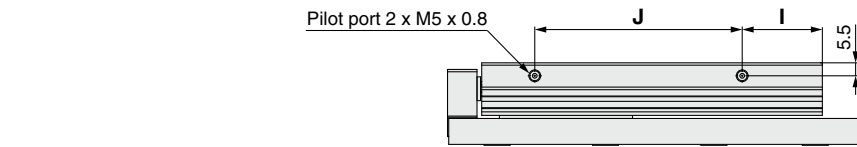
Made to Order

Model Selection

# MXQ□A Series

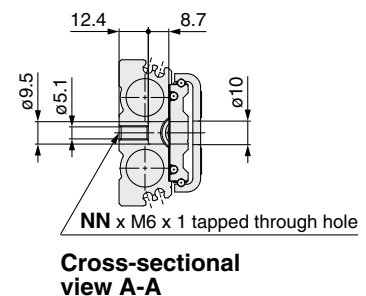
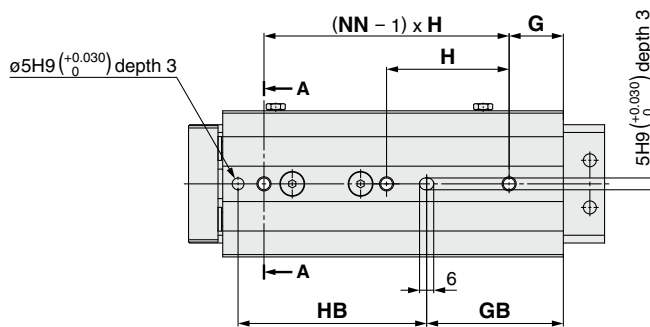
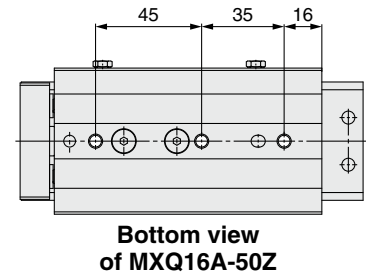
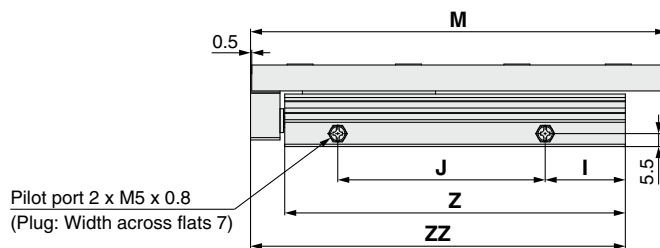
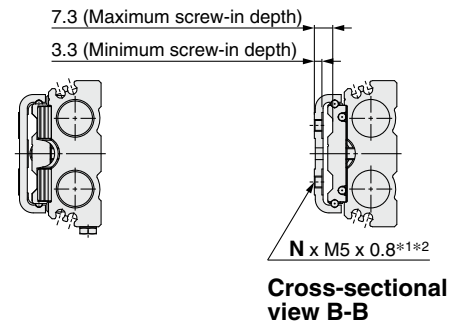
## Dimensions: MXQ **16A** [Standard]

### MXQ **16A-□Z** Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

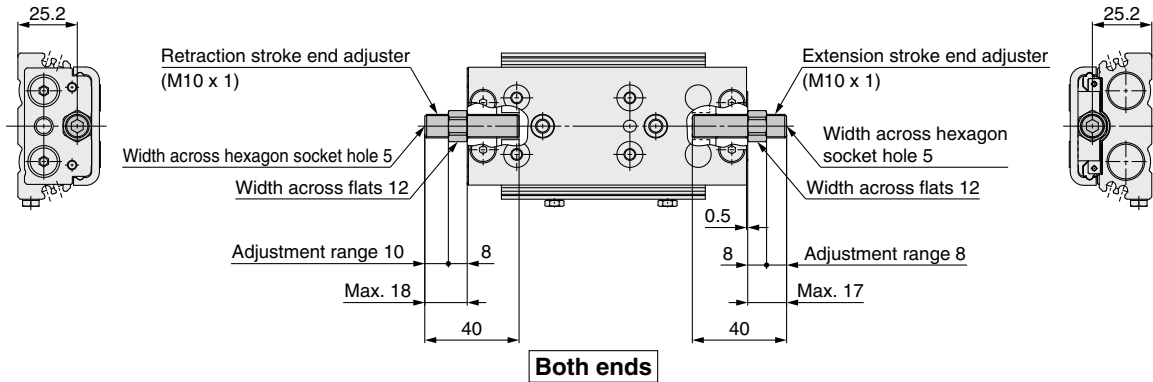
| Model       | F  | G  | GB  | H  | HB | I  | J   | M     | N  | NN | Z     | ZZ  |
|-------------|----|----|-----|----|----|----|-----|-------|----|----|-------|-----|
| MXQ16A-10Z  | 38 | 16 | 8   | 39 | 58 | 22 | 28  | 98.5  | 4  | 2  | 72.5  | 87  |
| MXQ16A-20Z  | 38 | 20 | 12  | 39 | 58 | 15 | 39  | 108.5 | 4  | 2  | 76.5  | 91  |
| MXQ16A-30Z  | 48 | 21 | 30  | 48 | 50 | 16 | 48  | 118.5 | 4  | 2  | 86.5  | 101 |
| MXQ16A-40Z  | 58 | 28 | 17  | 58 | 80 | 23 | 58  | 135.5 | 4  | 2  | 103.5 | 118 |
| MXQ16A-50Z  | 40 | —  | 27  | —  | 80 | 28 | 63  | 145.5 | 6  | 3  | 113.5 | 128 |
| MXQ16A-75Z  | 46 | 23 | 58  | 52 | 80 | 34 | 88  | 176.5 | 6  | 3  | 144.5 | 159 |
| MXQ16A-100Z | 44 | 39 | 102 | 44 | 80 | 53 | 113 | 220.5 | 8  | 4  | 188.5 | 203 |
| MXQ16A-125Z | 44 | 20 | 127 | 44 | 80 | 53 | 138 | 245.5 | 10 | 5  | 213.5 | 228 |

# Dimensions: MXQ **16A** [Adjuster Option]

## MXQ 16A-□□□ With adjuster option (ø16)

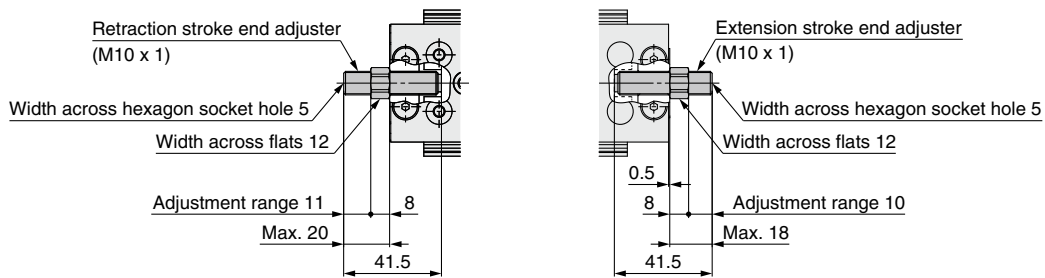
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



**Both ends**

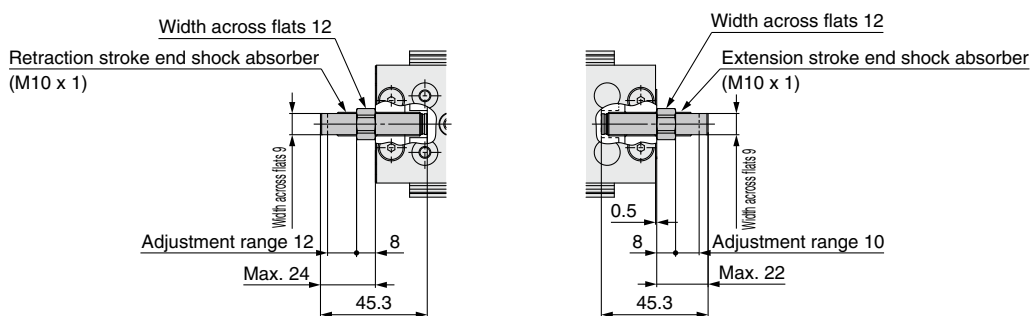
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



**Retraction stroke end**

**Extension stroke end**

Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

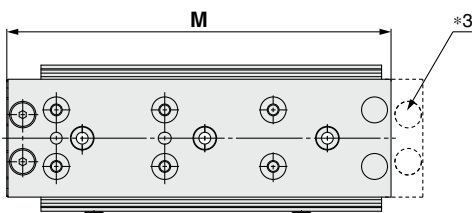


**Retraction stroke end**

**Extension stroke end**

\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 16A-□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

### Dimensions [mm]

| Model        | M   |
|--------------|-----|
| MXQ16A-10ZN  | 85  |
| MXQ16A-20ZN  | 95  |
| MXQ16A-30ZN  | 105 |
| MXQ16A-40ZN  | 122 |
| MXQ16A-50ZN  | 132 |
| MXQ16A-75ZN  | 163 |
| MXQ16A-100ZN | 207 |
| MXQ16A-125ZN | 232 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

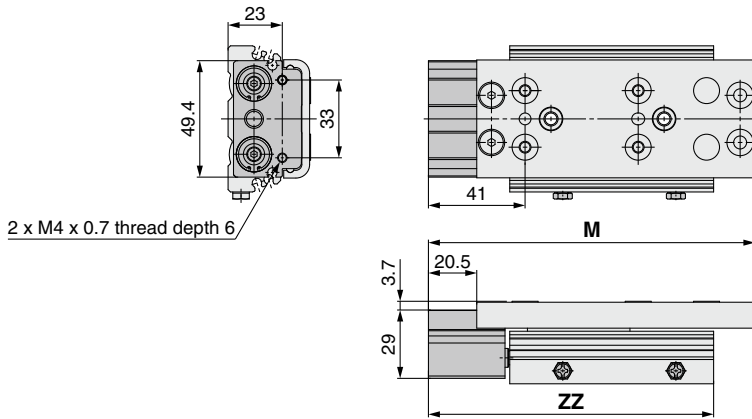
Model Selection



# MXQ□A Series

## Dimensions: MXQ **16A** [Functional Option]

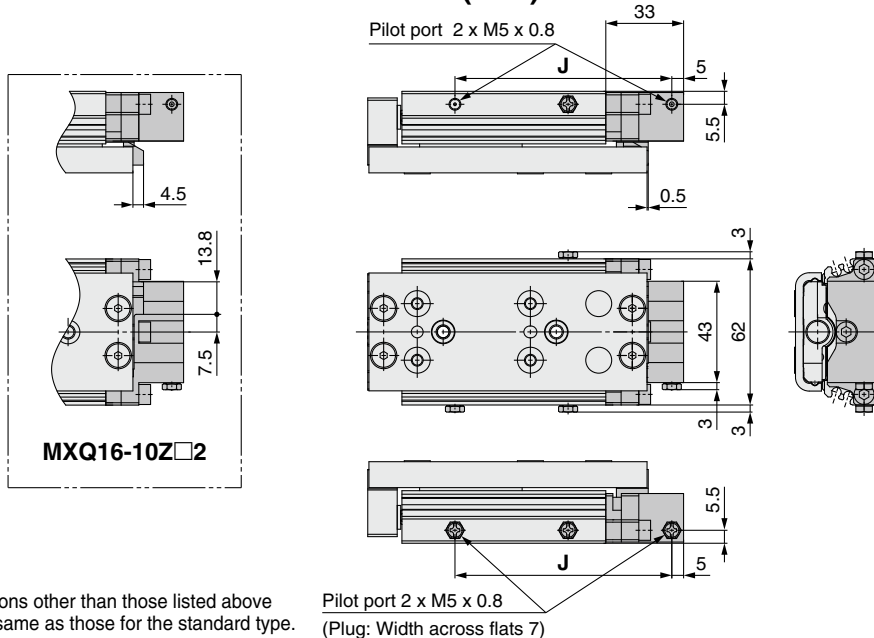
### MXQ 16A-□□1 With buffer (ø16)



Dimensions [mm]

| Model         | Standard type | Shorter total length type | ZZ  |
|---------------|---------------|---------------------------|-----|
|               | M             | M                         |     |
| MXQ16A-10Z□1  | 118.5         | 105                       | 107 |
| MXQ16A-20Z□1  | 128.5         | 115                       | 111 |
| MXQ16A-30Z□1  | 138.5         | 125                       | 121 |
| MXQ16A-40Z□1  | 155.5         | 142                       | 138 |
| MXQ16A-50Z□1  | 165.5         | 152                       | 148 |
| MXQ16A-75Z□1  | 196.5         | 183                       | 179 |
| MXQ16A-100Z□1 | 240.5         | 227                       | 223 |
| MXQ16A-125Z□1 | 265.5         | 252                       | 248 |

### MXQ 16A-□□2 With end lock (ø16)



Dimensions [mm]

| Model         | J   |
|---------------|-----|
| MXQ16A-10Z□2  | 78  |
| MXQ16A-20Z□2  | 82  |
| MXQ16A-30Z□2  | 92  |
| MXQ16A-40Z□2  | 109 |
| MXQ16A-50Z□2  | 119 |
| MXQ16A-75Z□2  | 150 |
| MXQ16A-100Z□2 | 194 |
| MXQ16A-125Z□2 | 219 |

\* Dimensions other than those listed above are the same as those for the standard type.

Pilot port 2 x M5 x 0.8  
(Plug: Width across flats 7)

### MXQ 16A-□□2 With end lock, extension stroke end adjuster (ø16)

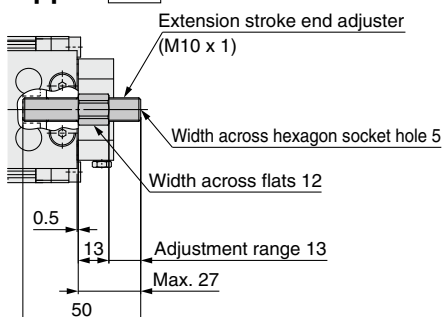
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT16-X28     | MXQA-A1687-X11                    |
| Rubber stopper: ZE            | MXQA-AT16-X28     | MXQA-A1627-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT16-X28     | RJ1006U-X2300                     |
| Metal stopper: ZL             | MXQA-DT16-X28     | MXQA-A1638-X11                    |

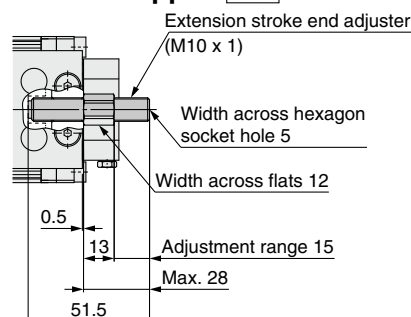
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

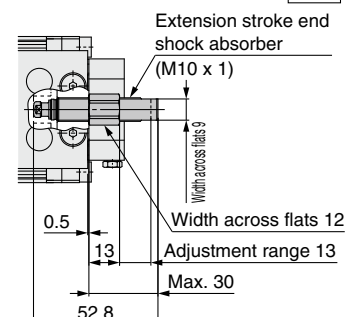
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



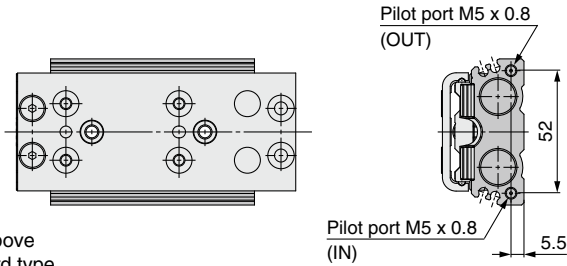
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

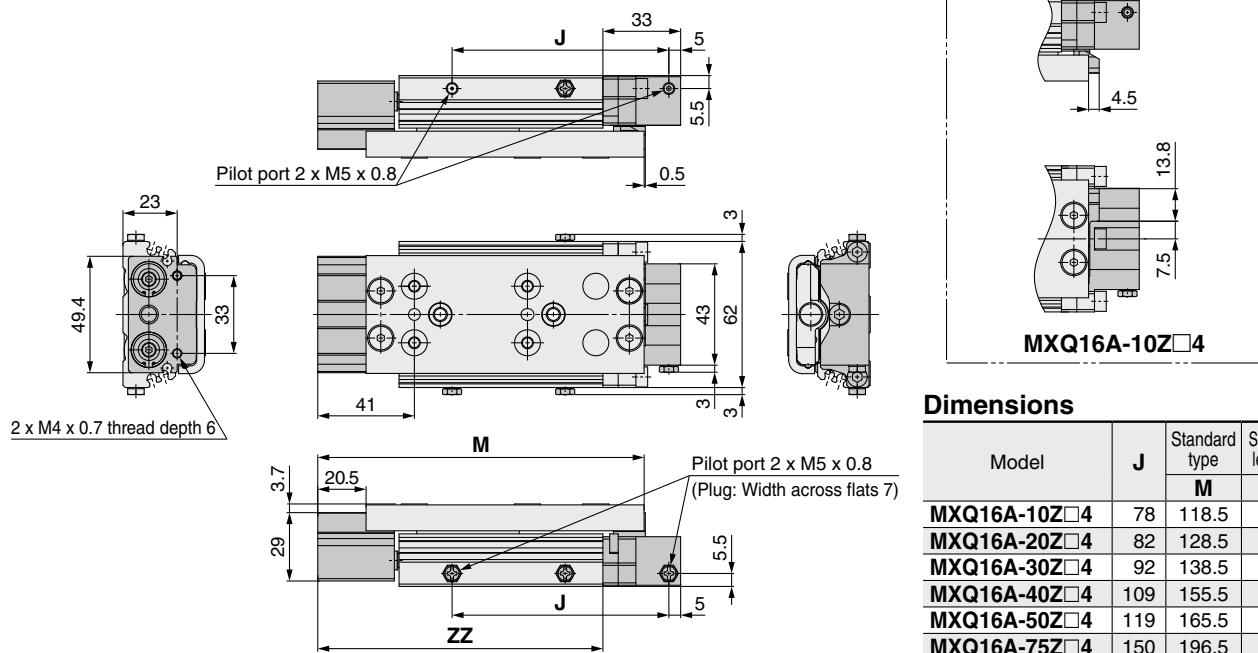
Dimensions: MXQ **16A** [Functional Option]

MXQ **16A-□□3** Axial piping (ø16)



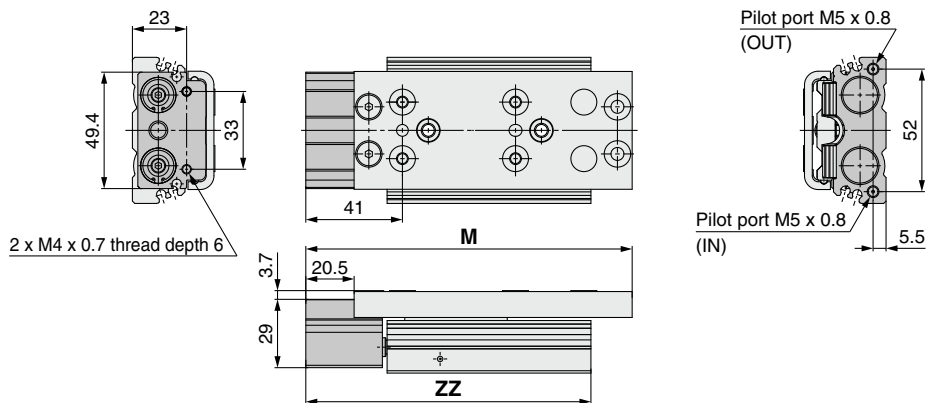
\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **16A-□□4** With buffer, end lock (ø16)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **16A-□□5** With buffer, axial piping (ø16)



\* Dimensions other than those listed above are the same as those for the standard type.

Dimensions [mm]

| Model         | J   | Standard type | Shorter total length type | ZZ  |
|---------------|-----|---------------|---------------------------|-----|
|               |     | M             | M                         |     |
| MXQ16A-10Z□4  | 78  | 118.5         | 105                       | 107 |
| MXQ16A-20Z□4  | 82  | 128.5         | 115                       | 111 |
| MXQ16A-30Z□4  | 92  | 138.5         | 125                       | 121 |
| MXQ16A-40Z□4  | 109 | 155.5         | 142                       | 138 |
| MXQ16A-50Z□4  | 119 | 165.5         | 152                       | 148 |
| MXQ16A-75Z□4  | 150 | 196.5         | 183                       | 179 |
| MXQ16A-100Z□4 | 194 | 240.5         | 227                       | 223 |
| MXQ16A-125Z□4 | 219 | 265.5         | 252                       | 248 |

Dimensions [mm]

| Model         | Standard type | Shorter total length type | ZZ  |
|---------------|---------------|---------------------------|-----|
|               | M             | M                         |     |
| MXQ16A-10Z□5  | 118.5         | 105                       | 107 |
| MXQ16A-20Z□5  | 128.5         | 115                       | 111 |
| MXQ16A-30Z□5  | 138.5         | 125                       | 121 |
| MXQ16A-40Z□5  | 155.5         | 142                       | 138 |
| MXQ16A-50Z□5  | 165.5         | 152                       | 148 |
| MXQ16A-75Z□5  | 196.5         | 183                       | 179 |
| MXQ16A-100Z□5 | 240.5         | 227                       | 223 |
| MXQ16A-125Z□5 | 265.5         | 252                       | 248 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ□A Series

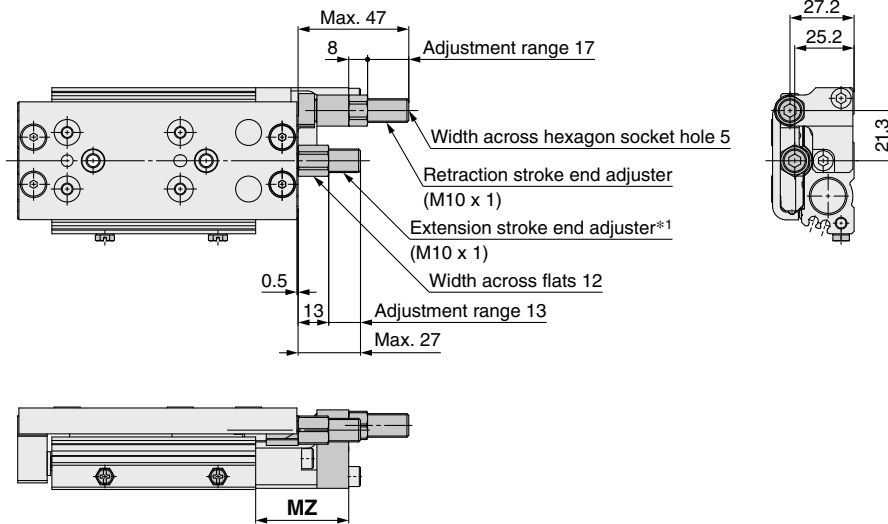
## Dimensions: MXQ **16A** [Functional Option]

### MXQ 16A-□□6 Centralized adjuster (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

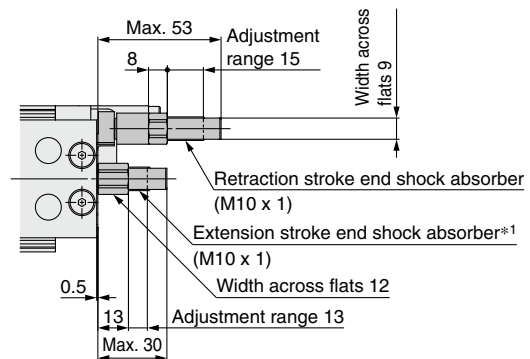
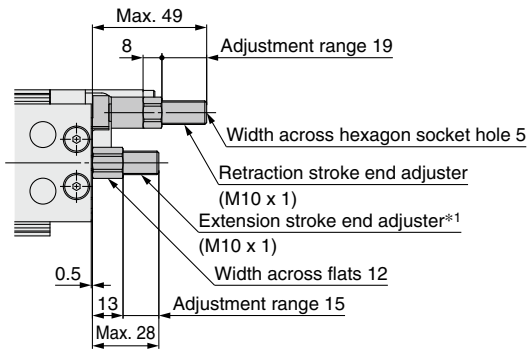
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ16A-10Z□6    | 33.5 |
| MXQ16A-20Z□6    | 39.5 |
| MXQ16A-30Z□6    |      |
| MXQ16A-40Z□6    |      |
| MXQ16A-50Z□6    |      |
| MXQ16A-75Z□6    |      |
| MXQ16A-100Z□6   |      |
| MXQ16A-125Z□6   |      |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

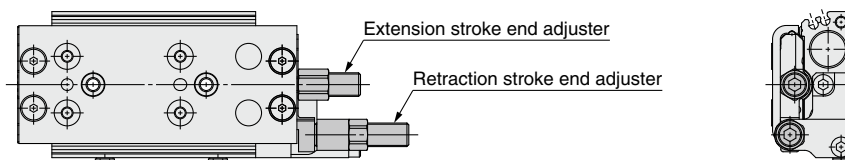


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ 16A-□□7 Centralized adjuster / Symmetric type (ø16)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



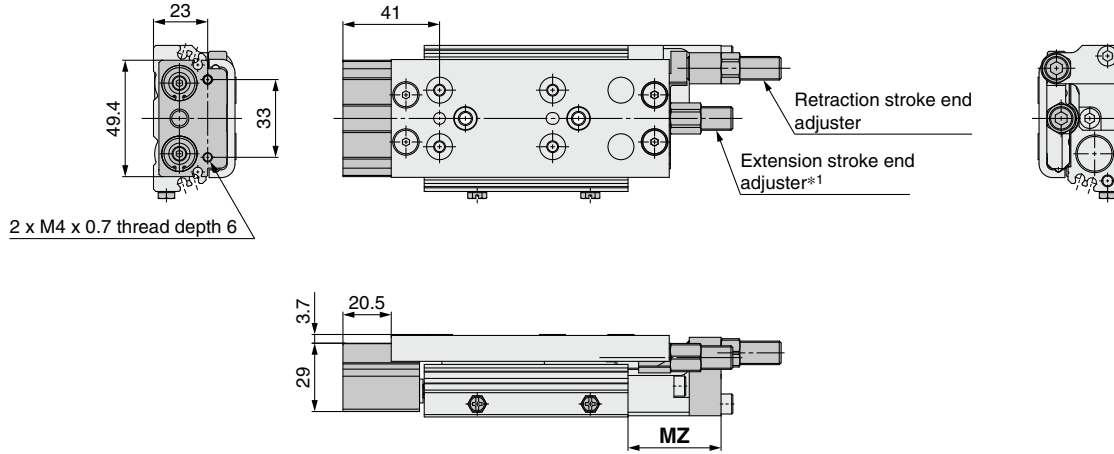
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Dimensions: MXQ **16A** [Functional Option]

**MXQ 16A-□□8 Buffer, Centralized adjuster (ø16)**

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

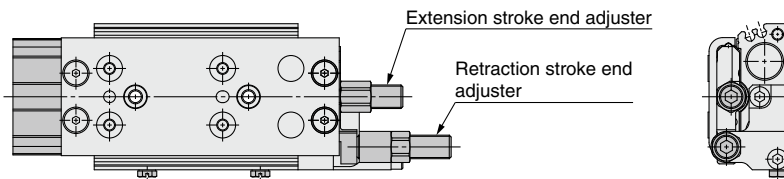


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ16A-10Z□8    | 33.5 |
| MXQ16A-20Z□8    | 39.5 |
| MXQ16A-30Z□8    |      |
| MXQ16A-40Z□8    |      |
| MXQ16A-50Z□8    |      |
| MXQ16A-75Z□8    |      |
| MXQ16A-100Z□8   |      |
| MXQ16A-125Z□8   |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

**MXQ 16A-□□9 Buffer, Centralized adjuster / Symmetric type (ø16)**

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

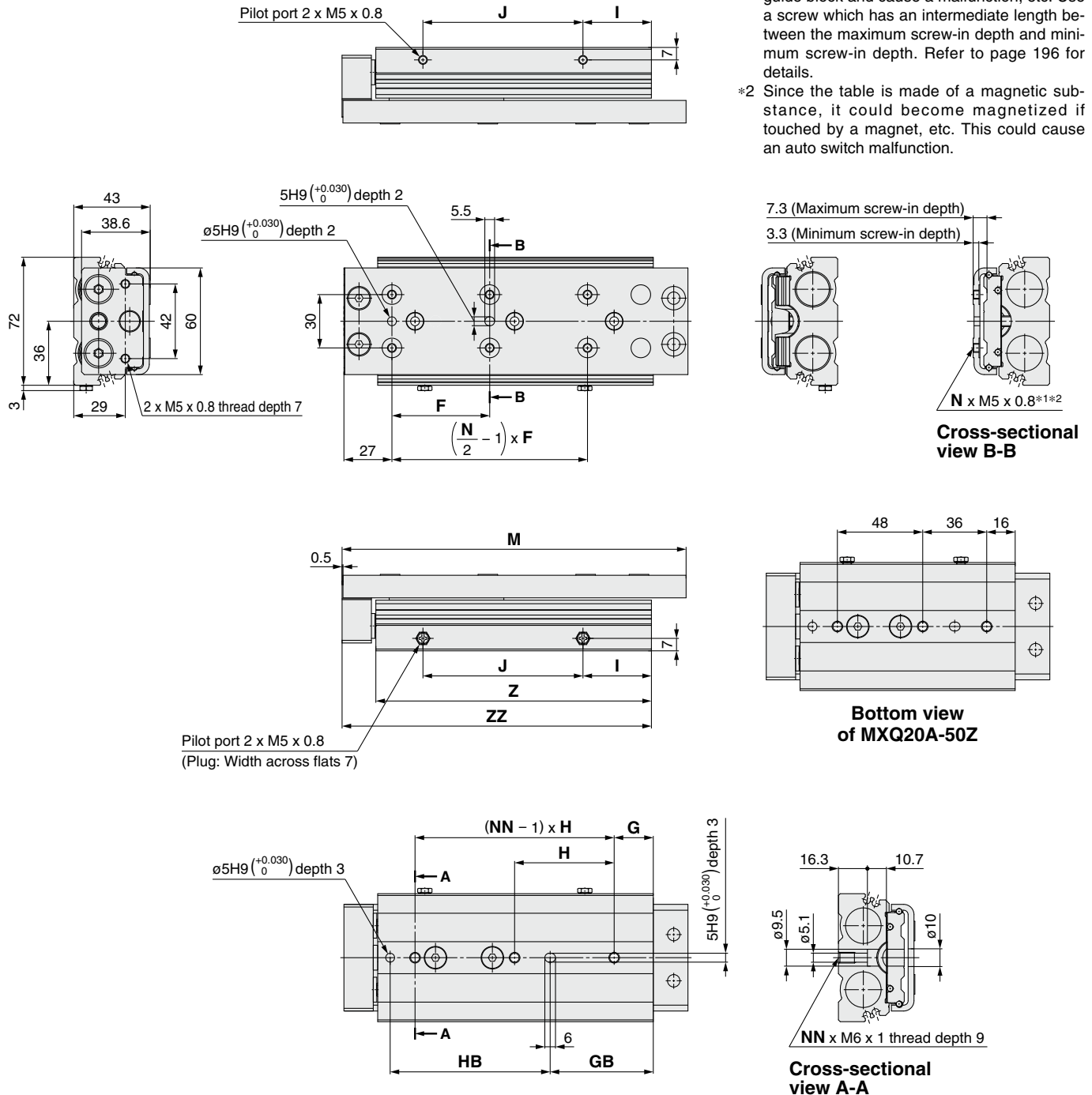
# MXQ□A Series

## Dimensions: MXQ **20A** [Standard]

### MXQ **20A**-□Z Standard type

\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

[mm]

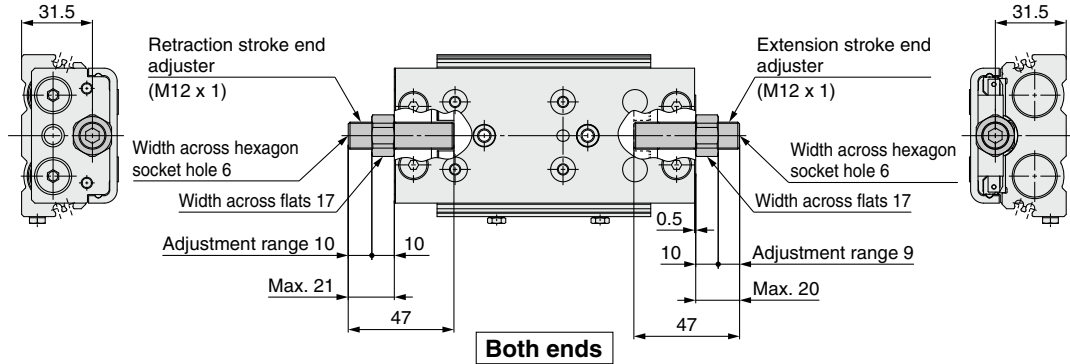
| Model       | F  | G  | GB  | H  | HB | I    | J   | M     | N | NN | Z   | ZZ  |
|-------------|----|----|-----|----|----|------|-----|-------|---|----|-----|-----|
| MXQ20A-10Z  | 45 | 18 | 8   | 46 | 70 | 24.5 | 34  | 113.5 | 4 | 2  | 85  | 104 |
| MXQ20A-20Z  | 40 | 18 | 8   | 46 | 70 | 24.5 | 34  | 123.5 | 4 | 2  | 85  | 104 |
| MXQ20A-30Z  | 48 | 28 | 18  | 46 | 70 | 22.5 | 46  | 133.5 | 4 | 2  | 95  | 114 |
| MXQ20A-40Z  | 58 | 28 | 18  | 56 | 80 | 22.5 | 56  | 143.5 | 4 | 2  | 105 | 124 |
| MXQ20A-50Z  | 42 | —  | 34  | —  | 80 | 30.5 | 64  | 159.5 | 6 | 3  | 121 | 140 |
| MXQ20A-75Z  | 55 | 22 | 58  | 56 | 90 | 38.5 | 90  | 193.5 | 6 | 3  | 155 | 174 |
| MXQ20A-100Z | 50 | 16 | 108 | 56 | 90 | 63.5 | 115 | 266.5 | 8 | 4  | 205 | 224 |
| MXQ20A-125Z | 55 | 32 | 133 | 59 | 90 | 63.5 | 140 | 291.5 | 8 | 4  | 230 | 249 |
| MXQ20A-150Z | 62 | 48 | 158 | 62 | 90 | 63.5 | 165 | 316.5 | 8 | 4  | 255 | 274 |

# Dimensions: MXQ **20A** [Adjuster Option]

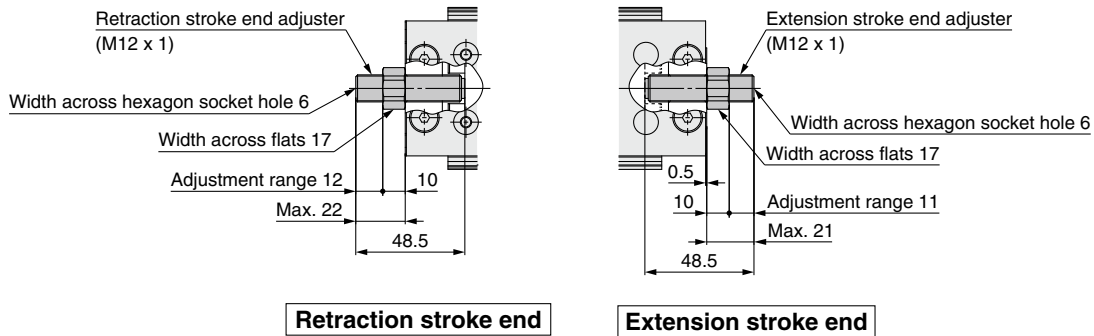
## MXQ **20A**-□□□□ With adjuster option (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

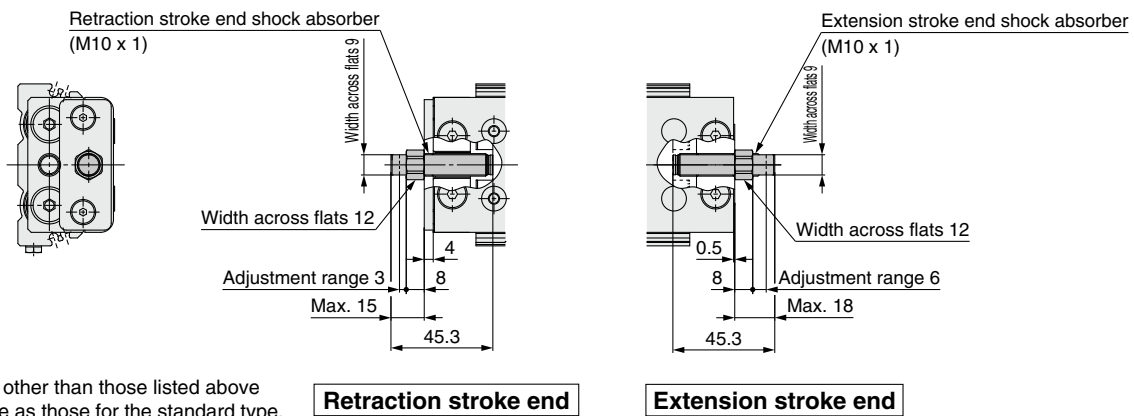
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

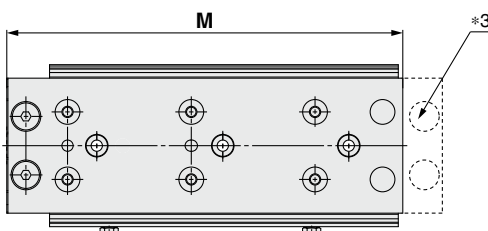


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **20A**-□□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ20A-10ZN     | 96  |
| MXQ20A-20ZN     | 106 |
| MXQ20A-30ZN     | 116 |
| MXQ20A-40ZN     | 126 |
| MXQ20A-50ZN     | 142 |
| MXQ20A-75ZN     | 176 |
| MXQ20A-100ZN    | 249 |
| MXQ20A-125ZN    | 274 |
| MXQ20A-150ZN    | 299 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

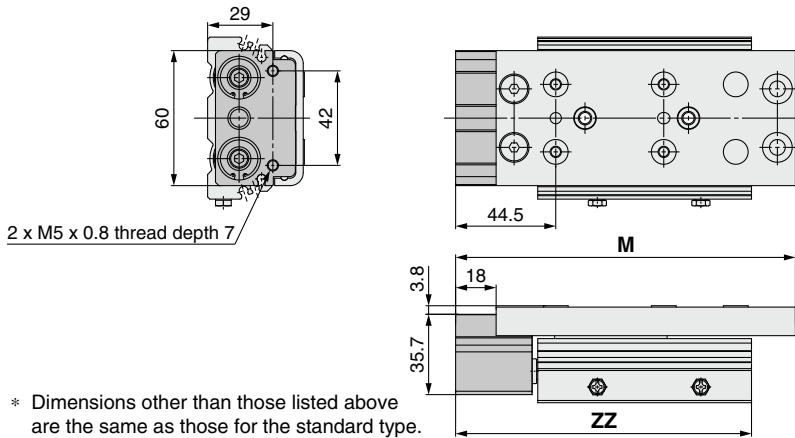
Model Selection



# MXQ□A Series

## Dimensions: MXQ **20A** [Functional Option]

### MXQ **20A-□□1** With buffer (ø20)

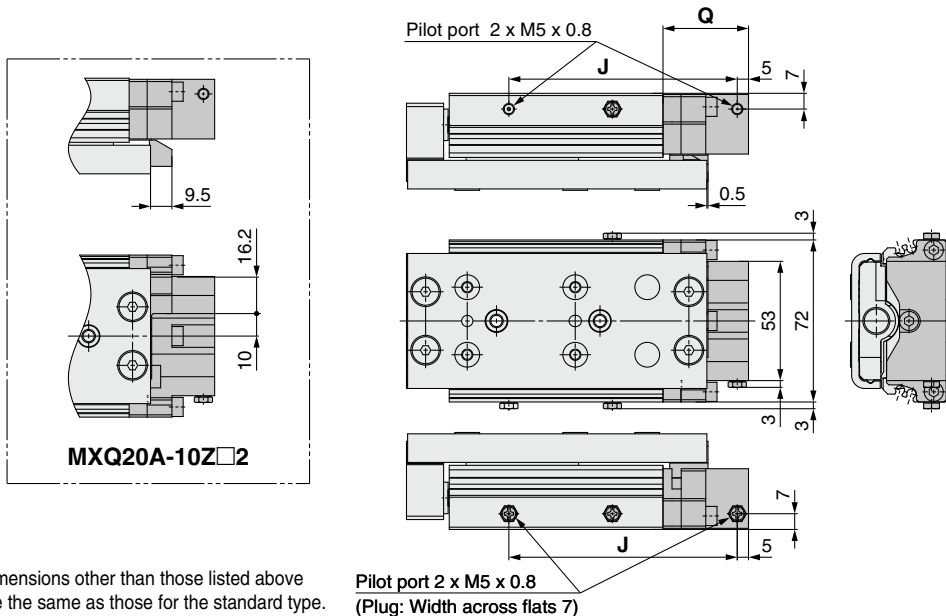


#### Dimensions [mm]

| Model         | Standard type |       | ZZ    |
|---------------|---------------|-------|-------|
|               | M             | M     |       |
| MXQ20A-10Z□1  | 131           | 113.5 | 121.5 |
| MXQ20A-20Z□1  | 141           | 123.5 |       |
| MXQ20A-30Z□1  | 151           | 133.5 | 131.5 |
| MXQ20A-40Z□1  | 161           | 143.5 | 141.5 |
| MXQ20A-50Z□1  | 177           | 159.5 | 157.5 |
| MXQ20A-75Z□1  | 211           | 193.5 | 191.5 |
| MXQ20A-100Z□1 | 284           | 266.5 | 241.5 |
| MXQ20A-125Z□1 | 309           | 291.5 | 266.5 |
| MXQ20A-150Z□1 | 334           | 316.5 | 291.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **20A-□□2** With end lock (ø20)



#### Dimensions [mm]

| Model         | J     |       | Q     |
|---------------|-------|-------|-------|
|               | J     | Q     |       |
| MXQ20A-10Z□2  | 38    | 91.5  | 38    |
| MXQ20A-20Z□2  |       |       |       |
| MXQ20A-30Z□2  |       |       |       |
| MXQ20A-40Z□2  |       |       |       |
| MXQ20A-50Z□2  | 61    | 127.5 | 61    |
| MXQ20A-75Z□2  |       |       |       |
| MXQ20A-100Z□2 |       |       |       |
| MXQ20A-125Z□2 | 259.5 | 284.5 | 259.5 |
| MXQ20A-150Z□2 |       |       |       |

\* Dimensions other than those listed above are the same as those for the standard type.

Pilot port 2 x M5 x 0.8  
(Plug: Width across flats 7)

### MXQ **20A-□□2** With end lock, extension stroke end adjuster (ø20)

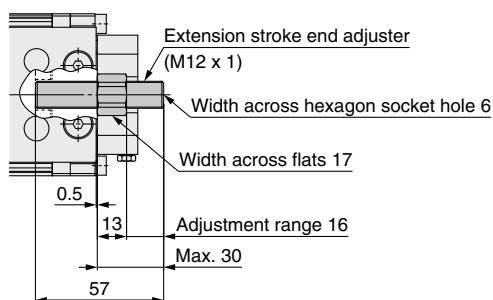
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT20-X28     | MXQA-A208-X11                     |
| Rubber stopper: ZE            | MXQA-AT20-X28     | MXQA-A2027-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT20-X28     | RJ1007HU-X2300                    |
| Metal stopper: ZL             | MXQA-DT20-X28     | MXQA-A2038-X11                    |

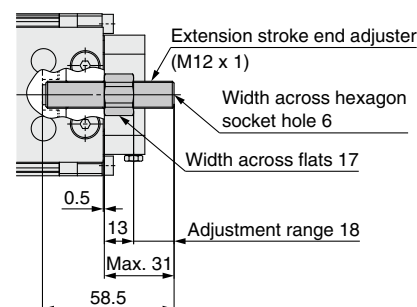
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

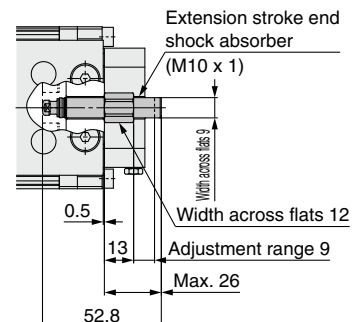
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



#### Shock absorber/RJ: **ZH**

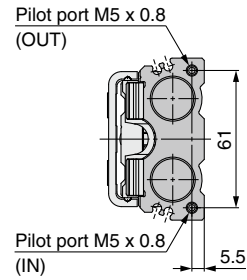
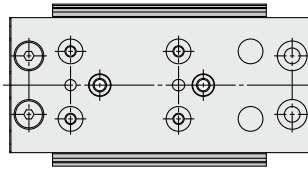


\* Dimensions other than those listed above are the same as those for the standard type.

Dimensions: MXQ **20A** [Functional Option]

**MXQ 20A-□□3**

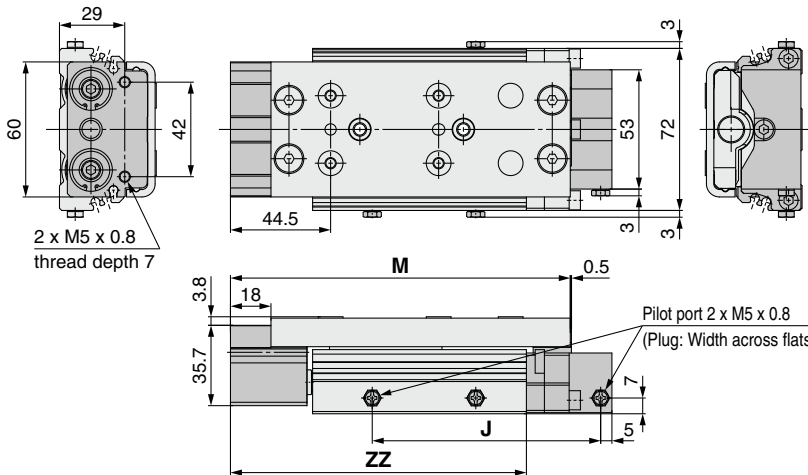
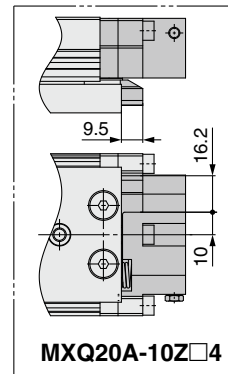
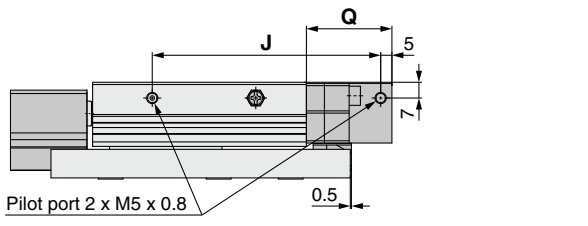
Axial piping (ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 20A-□□4**

With buffer, end lock (ø20)



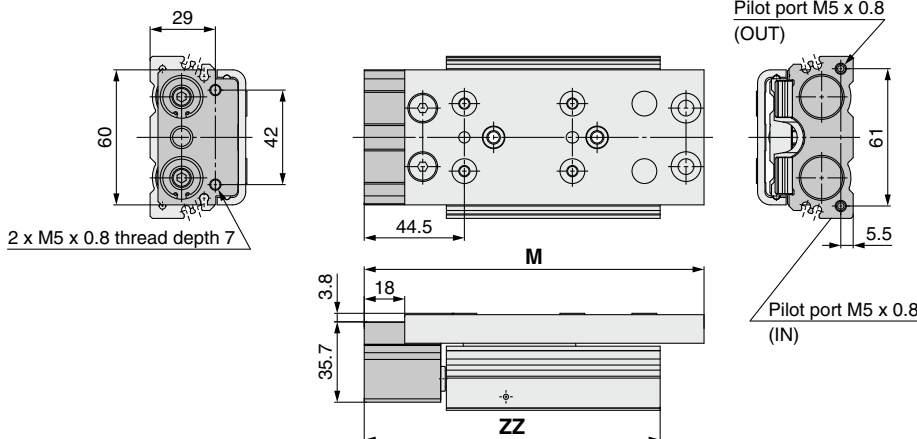
**Dimensions**

| Model         | J     | Q  | Standard type |                             | ZZ    |
|---------------|-------|----|---------------|-----------------------------|-------|
|               |       |    | M             | Shorter total length type M |       |
| MXQ20A-10Z□4  | 91.5  | 38 | 131           | 113.5                       | 121.5 |
| MXQ20A-20Z□4  |       |    | 141           | 123.5                       |       |
| MXQ20A-30Z□4  | 101.5 | 38 | 151           | 133.5                       | 131.5 |
| MXQ20A-40Z□4  | 111.5 |    | 161           | 143.5                       | 141.5 |
| MXQ20A-50Z□4  | 127.5 | 61 | 177           | 159.5                       | 157.5 |
| MXQ20A-75Z□4  | 161.5 |    | 211           | 193.5                       | 191.5 |
| MXQ20A-100Z□4 | 234.5 | 61 | 284           | 266.5                       | 241.5 |
| MXQ20A-125Z□4 | 259.5 |    | 309           | 291.5                       | 266.5 |
| MXQ20A-150Z□4 | 284.5 |    | 334           | 316.5                       | 291.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 20A-□□5**

With buffer, axial piping (ø20)



**Dimensions**

| Model         | Standard type |                             | ZZ    |
|---------------|---------------|-----------------------------|-------|
|               | M             | Shorter total length type M |       |
| MXQ20A-10Z□5  | 131           | 113.5                       | 121.5 |
| MXQ20A-20Z□5  | 141           | 123.5                       |       |
| MXQ20A-30Z□5  | 151           | 133.5                       | 131.5 |
| MXQ20A-40Z□5  | 161           | 143.5                       | 141.5 |
| MXQ20A-50Z□5  | 177           | 159.5                       | 157.5 |
| MXQ20A-75Z□5  | 211           | 193.5                       | 191.5 |
| MXQ20A-100Z□5 | 284           | 266.5                       | 241.5 |
| MXQ20A-125Z□5 | 309           | 291.5                       | 266.5 |
| MXQ20A-150Z□5 | 334           | 316.5                       | 291.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

# MXQ□A Series

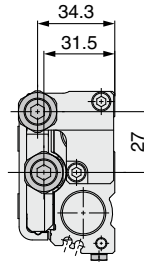
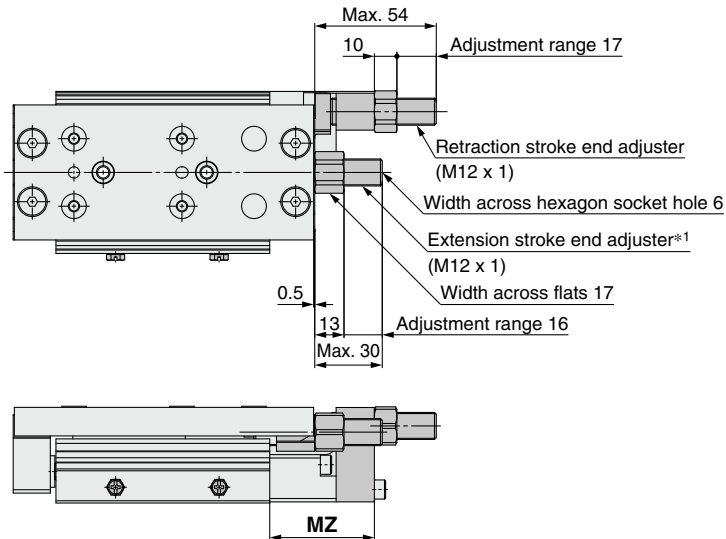
## Dimensions: MXQ **20A** [Functional Option]

### MXQ **20A-□□6** Centralized adjuster (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

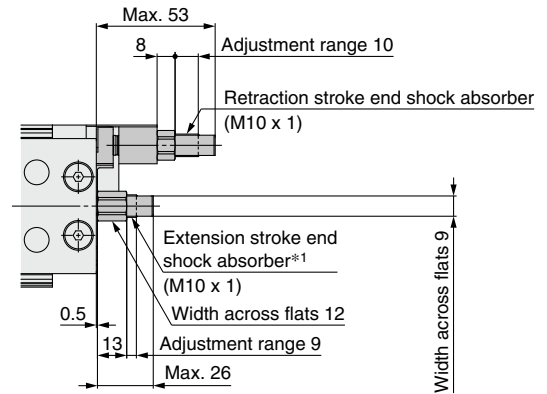
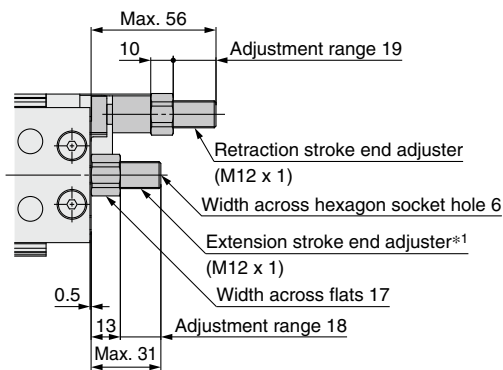
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ20A-10Z□6    | 36.5 |
| MXQ20A-20Z□6    | 46.5 |
| MXQ20A-30Z□6    |      |
| MXQ20A-40Z□6    |      |
| MXQ20A-50Z□6    |      |
| MXQ20A-75Z□6    | 69.5 |
| MXQ20A-100Z□6   |      |
| MXQ20A-125Z□6   |      |
| MXQ20A-150Z□6   |      |

Rubber stopper **ZD**: Both ends,  
**ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends,  
**ZJ**: Retraction stroke end

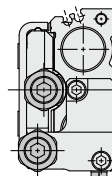
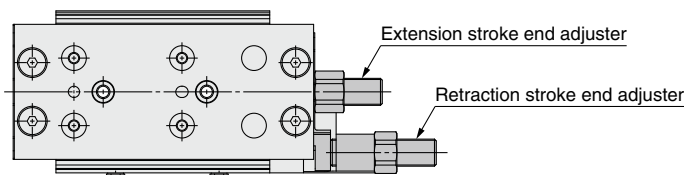


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ **20A-□□7** Centralized adjuster / Symmetric type (ø20)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



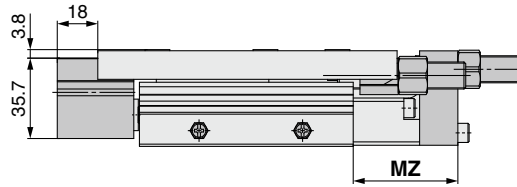
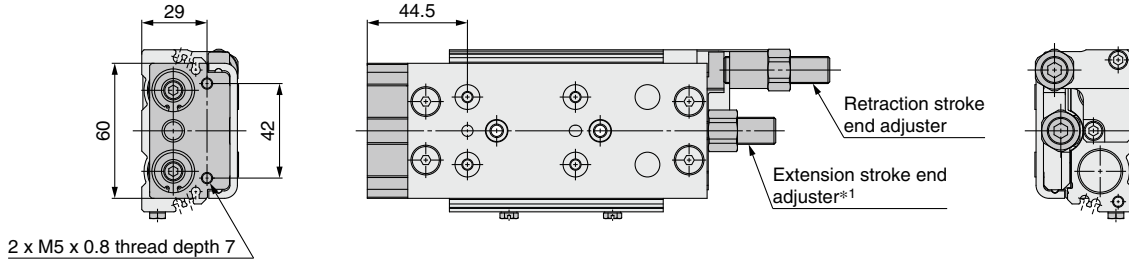
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

# Dimensions: MXQ **20A** [Functional Option]

## MXQ 20A-□□8 Buffer, Centralized adjuster (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

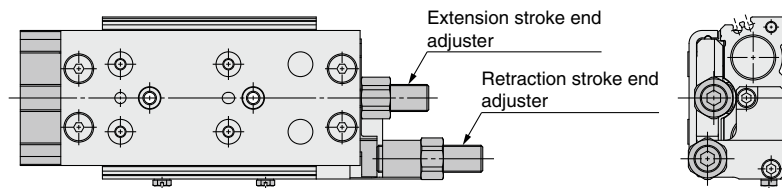


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ20A-10Z□8    | 36.5 |
| MXQ20A-20Z□8    |      |
| MXQ20A-30Z□8    |      |
| MXQ20A-40Z□8    | 46.5 |
| MXQ20A-50Z□8    |      |
| MXQ20A-75Z□8    |      |
| MXQ20A-100Z□8   |      |
| MXQ20A-125Z□8   | 69.5 |
| MXQ20A-150Z□8   |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

## MXQ 20A-□□9 Buffer, Centralized adjuster / Symmetric type (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

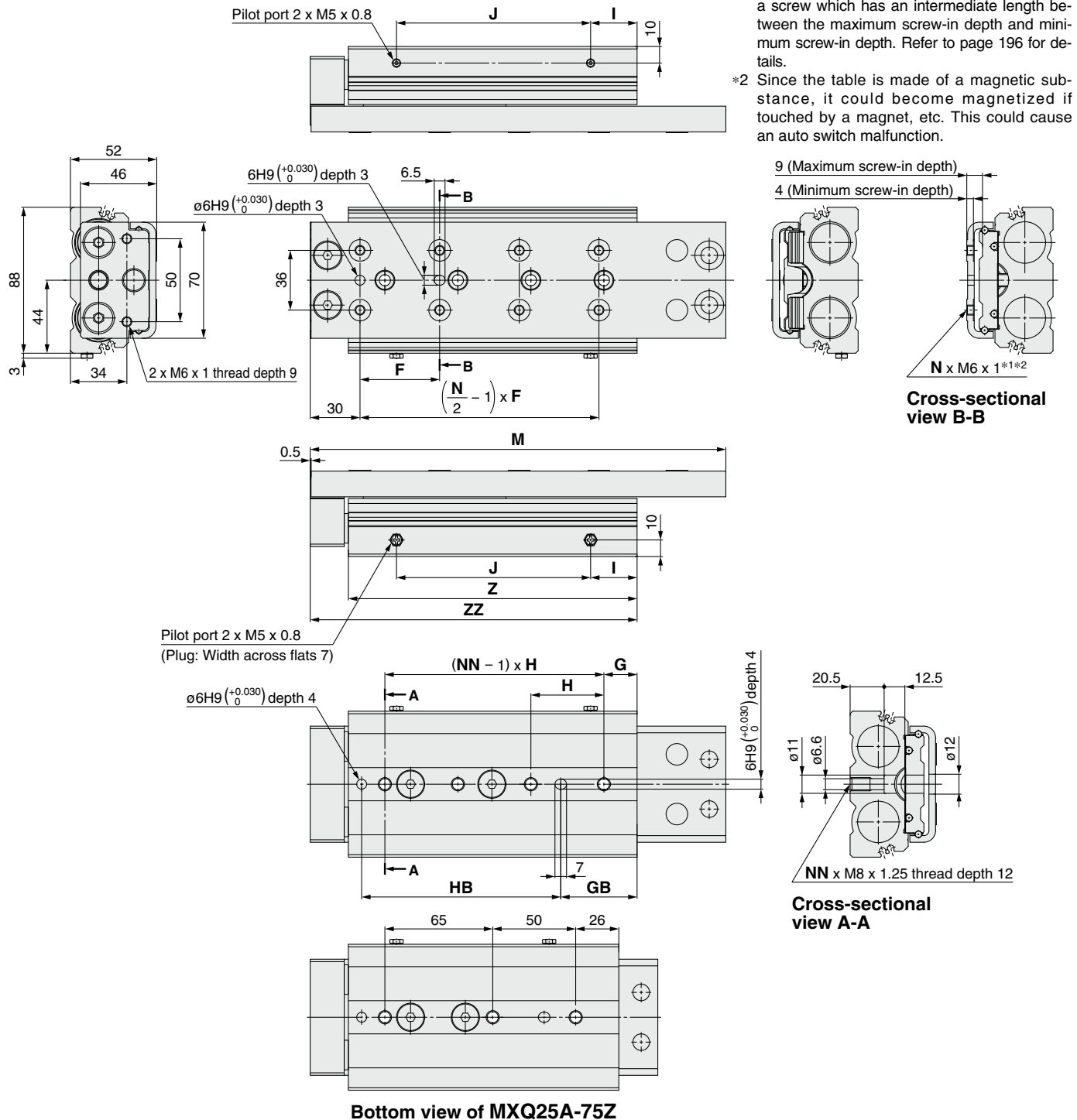
Made to Order

Model Selection

# MXQ□A Series

## Dimensions: MXQ **25A** [Standard]

### MXQ **25A**-□Z Standard type



- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

### Dimensions

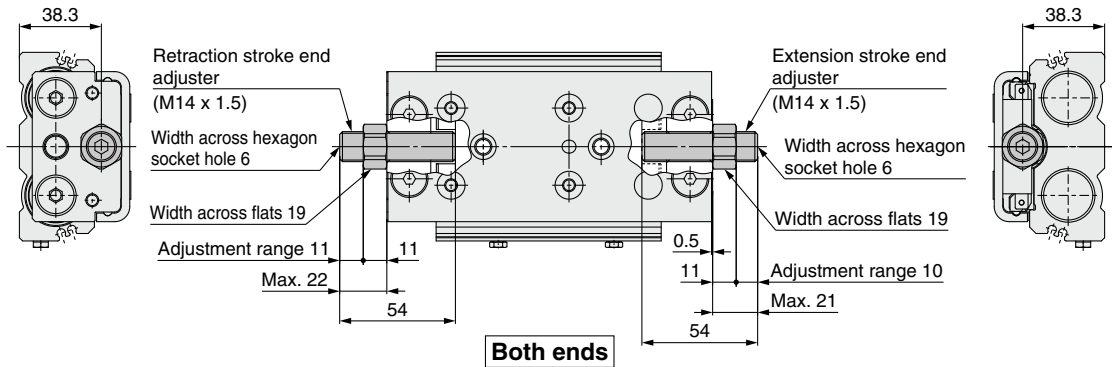
| Model       | F  | G  | GB | H  | HB  | I  | J   | M     | N | NN | Z   | ZZ  |
|-------------|----|----|----|----|-----|----|-----|-------|---|----|-----|-----|
| MXQ25A-10Z  | 55 | 18 | 7  | 55 | 80  | 30 | 36  | 131.5 | 4 | 2  | 95  | 118 |
| MXQ25A-20Z  | 46 | 18 | 7  | 55 | 80  | 30 | 36  | 141.5 | 4 | 2  | 95  | 118 |
| MXQ25A-30Z  | 55 | 28 | 17 | 55 | 80  | 22 | 54  | 151.5 | 4 | 2  | 105 | 128 |
| MXQ25A-40Z  | 65 | 28 | 17 | 65 | 90  | 22 | 64  | 161.5 | 4 | 2  | 115 | 138 |
| MXQ25A-50Z  | 75 | 36 | 20 | 80 | 110 | 43 | 66  | 184.5 | 4 | 2  | 138 | 161 |
| MXQ25A-75Z  | 60 | —  | 45 | —  | 110 | 42 | 92  | 209.5 | 6 | 3  | 163 | 186 |
| MXQ25A-100Z | 48 | 20 | 46 | 44 | 120 | 28 | 117 | 250.5 | 8 | 4  | 174 | 197 |
| MXQ25A-125Z | 60 | 18 | 60 | 66 | 170 | 67 | 142 | 314.5 | 8 | 4  | 238 | 261 |
| MXQ25A-150Z | 65 | 43 | 85 | 66 | 170 | 66 | 168 | 339.5 | 8 | 4  | 263 | 286 |

# Dimensions: MXQ **25A** [Adjuster Option]

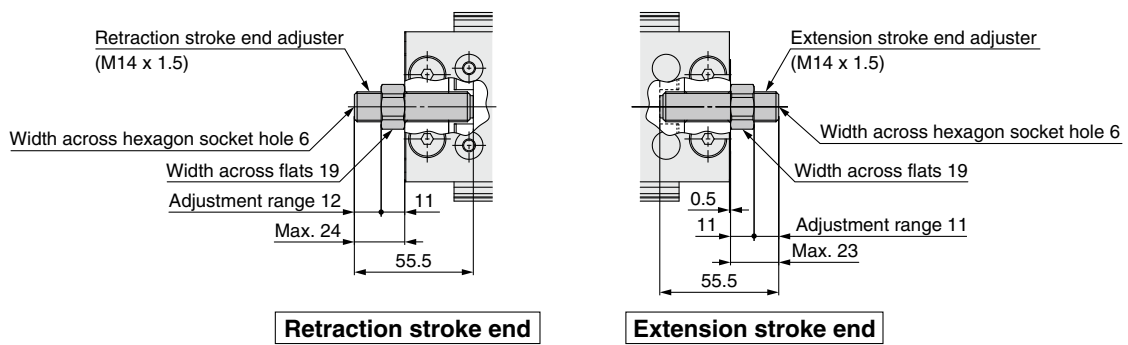
## MXQ 25A-□□□ With adjuster option (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

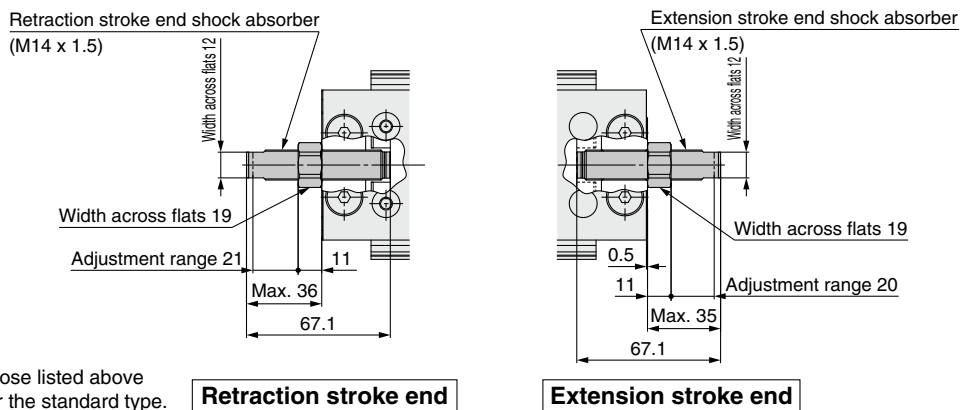
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

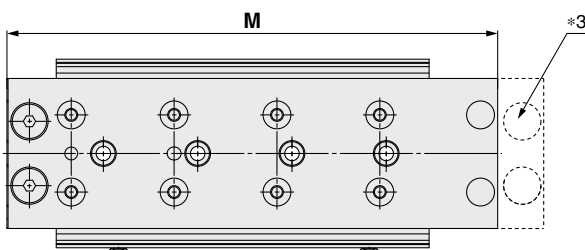


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 25A-□ZN Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ25A-10ZN     | 110 |
| MXQ25A-20ZN     | 120 |
| MXQ25A-30ZN     | 130 |
| MXQ25A-40ZN     | 140 |
| MXQ25A-50ZN     | 163 |
| MXQ25A-75ZN     | 188 |
| MXQ25A-100ZN    | 229 |
| MXQ25A-125ZN    | 293 |
| MXQ25A-150ZN    | 318 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

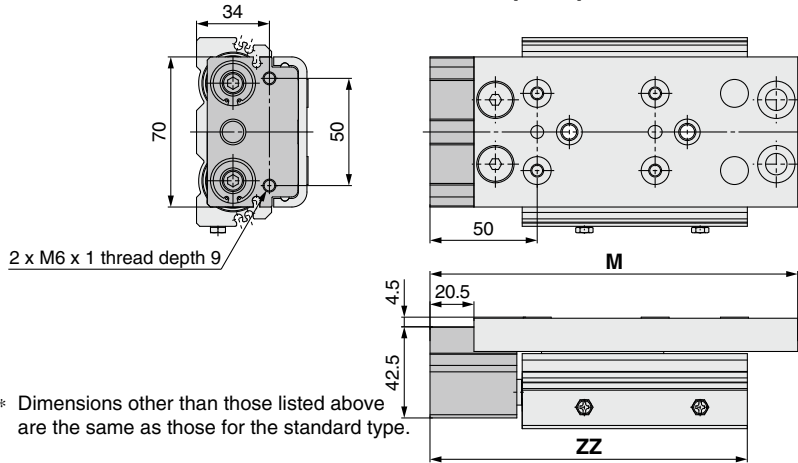
Model Selection



# MXQ□A Series

## Dimensions: MXQ **25A** [Functional Option]

### MXQ **25A**-□□1 With buffer (ø25)

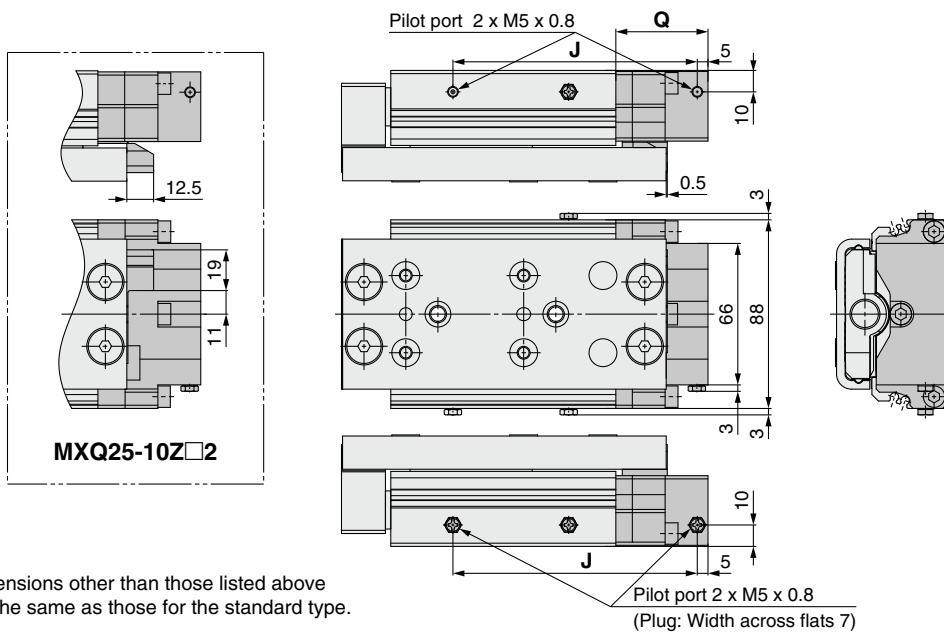


#### Dimensions [mm]

| Model         | Standard type |                             | ZZ  |
|---------------|---------------|-----------------------------|-----|
|               | M             | Shorter total length type M |     |
| MXQ25A-10Z□1  | 151.5         | 130                         | 138 |
| MXQ25A-20Z□1  | 161.5         | 140                         |     |
| MXQ25A-30Z□1  | 171.5         | 150                         | 148 |
| MXQ25A-40Z□1  | 181.5         | 160                         | 158 |
| MXQ25A-50Z□1  | 204.5         | 183                         | 181 |
| MXQ25A-75Z□1  | 229.5         | 208                         | 206 |
| MXQ25A-100Z□1 | 270.5         | 249                         | 217 |
| MXQ25A-125Z□1 | 334.5         | 313                         | 281 |
| MXQ25A-150Z□1 | 359.5         | 338                         | 306 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **25A**-□□2 With end lock (ø25)



#### Dimensions [mm]

| Model         | J   |    | Q |
|---------------|-----|----|---|
|               | J   | Q  |   |
| MXQ25A-10Z□2  | 109 | 48 |   |
| MXQ25A-20Z□2  | 104 |    |   |
| MXQ25A-30Z□2  | 114 |    |   |
| MXQ25A-40Z□2  | 124 | 43 |   |
| MXQ25A-50Z□2  | 147 |    |   |
| MXQ25A-75Z□2  | 172 |    |   |
| MXQ25A-100Z□2 | 213 |    |   |
| MXQ25A-125Z□2 | 277 | 73 |   |
| MXQ25A-150Z□2 | 302 |    |   |

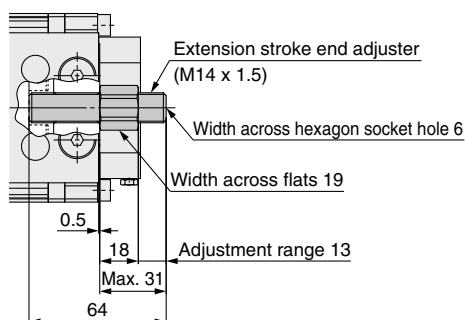
\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **25A**-□□2 With end lock, extension stroke end adjuster (ø25)

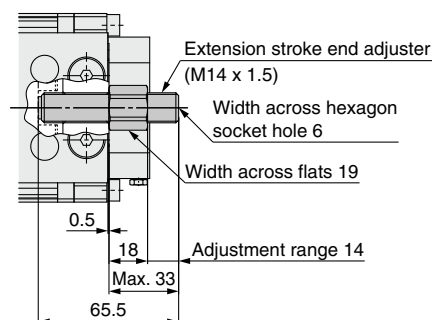
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

#### Metal stopper with bumper: **ZB**

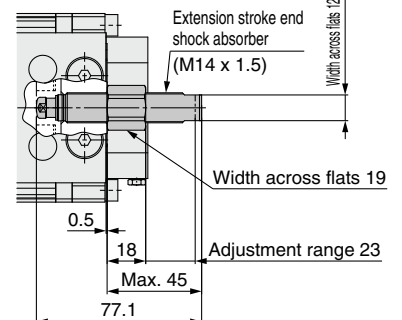
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

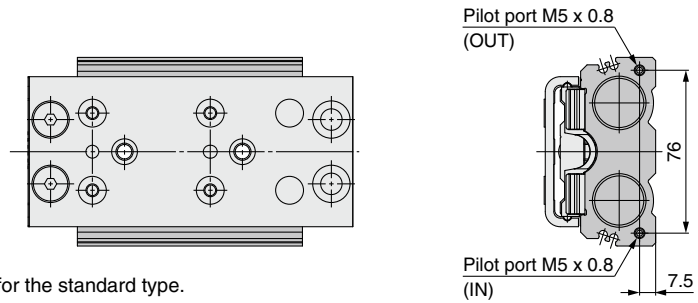
| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT25-X28     | MXQA-A2587-X11                    |
| Rubber stopper: ZE            | MXQA-AT25-X28     | MXQA-A2527-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT25-X28     | RJ1410U-X2300                     |
| Metal stopper: ZL             | MXQA-DT25-X28     | MXQA-A2538-X11                    |

\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

Dimensions: MXQ **25A** [Functional Option]

**MXQ 25A-□□3**

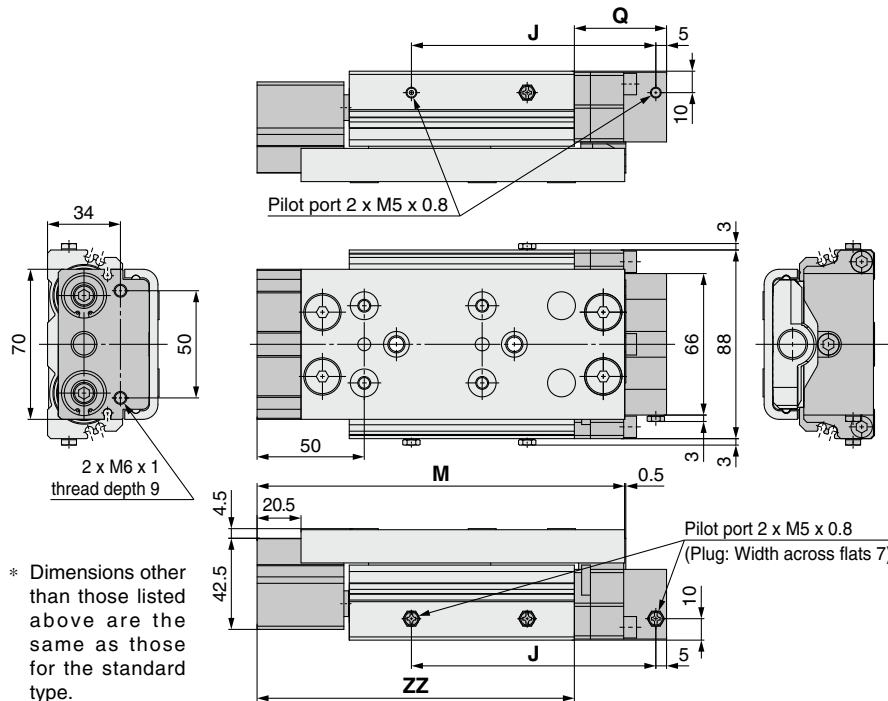
Axial piping (ø25)



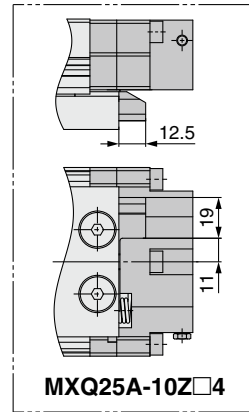
\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 25A-□□4**

With buffer, end lock (ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

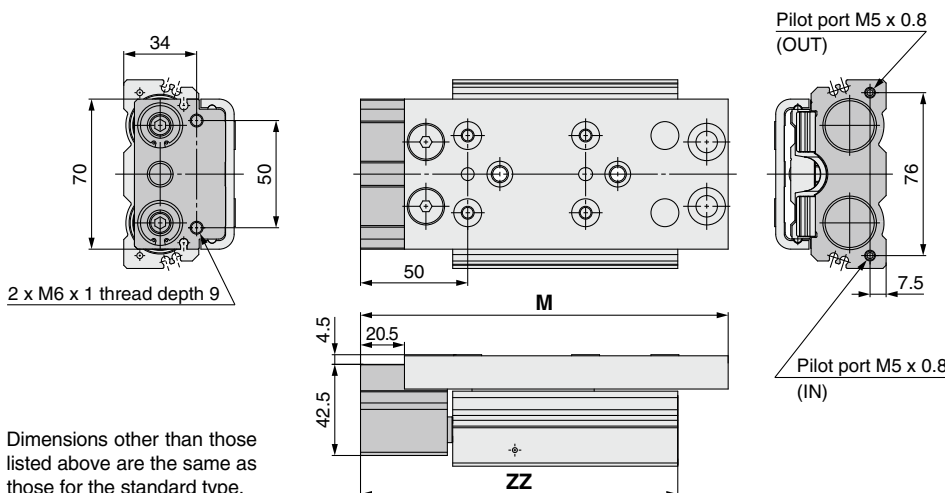


**Dimensions**

| Model         | J   | Q     | Standard type |     | ZZ  |
|---------------|-----|-------|---------------|-----|-----|
|               |     |       | M             | M   |     |
| MXQ25A-10Z□4  | 109 | 48    | 151.5         | 130 | 138 |
| MXQ25A-20Z□4  | 104 | 43    | 161.5         | 140 | 148 |
| MXQ25A-30Z□4  | 114 |       | 171.5         | 150 |     |
| MXQ25A-40Z□4  | 124 | 181.5 | 160           | 158 |     |
| MXQ25A-50Z□4  | 147 | 204.5 | 183           | 181 |     |
| MXQ25A-75Z□4  | 172 | 229.5 | 208           | 206 |     |
| MXQ25A-100Z□4 | 213 | 270.5 | 149           | 217 |     |
| MXQ25A-125Z□4 | 277 | 73    | 334.5         | 313 | 281 |
| MXQ25A-150Z□4 | 302 | 359.5 | 338           | 306 |     |

**MXQ 25A-□□5**

With buffer, axial piping (ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions**

| Model         | Standard type |     | ZZ  |
|---------------|---------------|-----|-----|
|               | M             | M   |     |
| MXQ25A-10Z□5  | 151.5         | 130 | 138 |
| MXQ25A-20Z□5  | 161.5         | 140 | 148 |
| MXQ25A-30Z□5  | 171.5         | 150 |     |
| MXQ25A-40Z□5  | 181.5         | 160 | 158 |
| MXQ25A-50Z□5  | 204.5         | 183 | 181 |
| MXQ25A-75Z□5  | 229.5         | 208 | 206 |
| MXQ25A-100Z□5 | 270.5         | 149 | 217 |
| MXQ25A-125Z□5 | 334.5         | 313 | 281 |
| MXQ25A-150Z□5 | 359.5         | 338 | 306 |

# MXQ□A Series

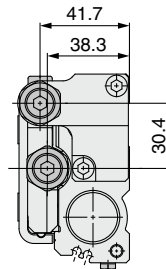
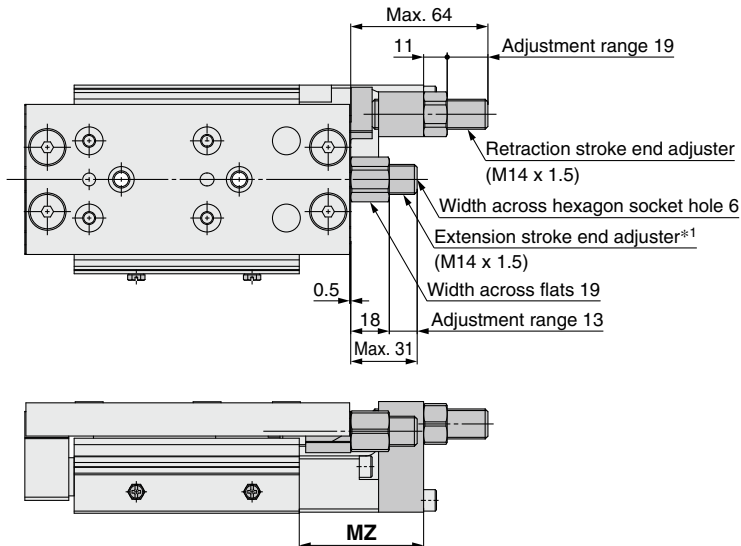
## Dimensions: MXQ **25A** [Functional Option]

### MXQ **25A**-□□**6** Centralized adjuster (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

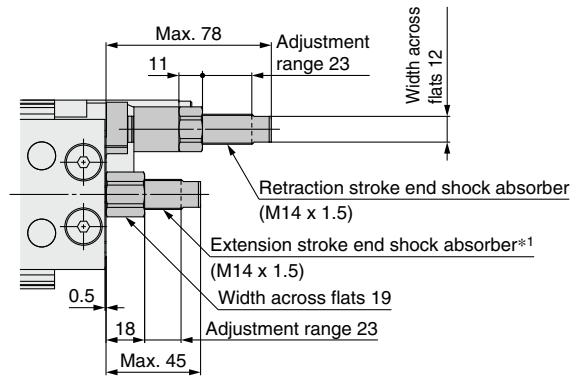
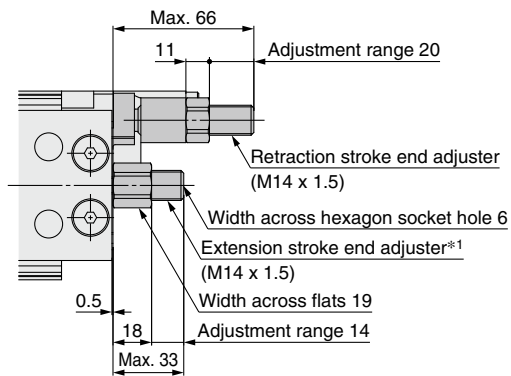
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ25A-10Z□6    | 48 |
| MXQ25A-20Z□6    | 58 |
| MXQ25A-30Z□6    |    |
| MXQ25A-40Z□6    |    |
| MXQ25A-50Z□6    |    |
| MXQ25A-75Z□6    | 88 |
| MXQ25A-100Z□6   |    |
| MXQ25A-125Z□6   |    |
| MXQ25A-150Z□6   |    |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

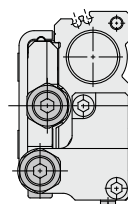
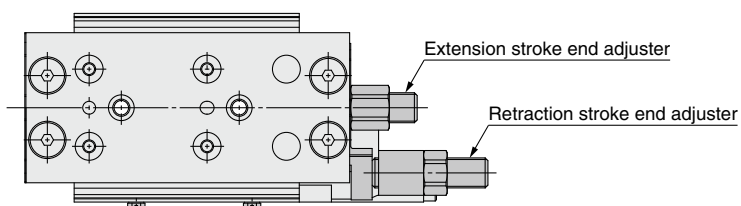
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **25A**-□□**7** Centralized adjuster / Symmetric type (ø25)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

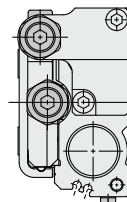
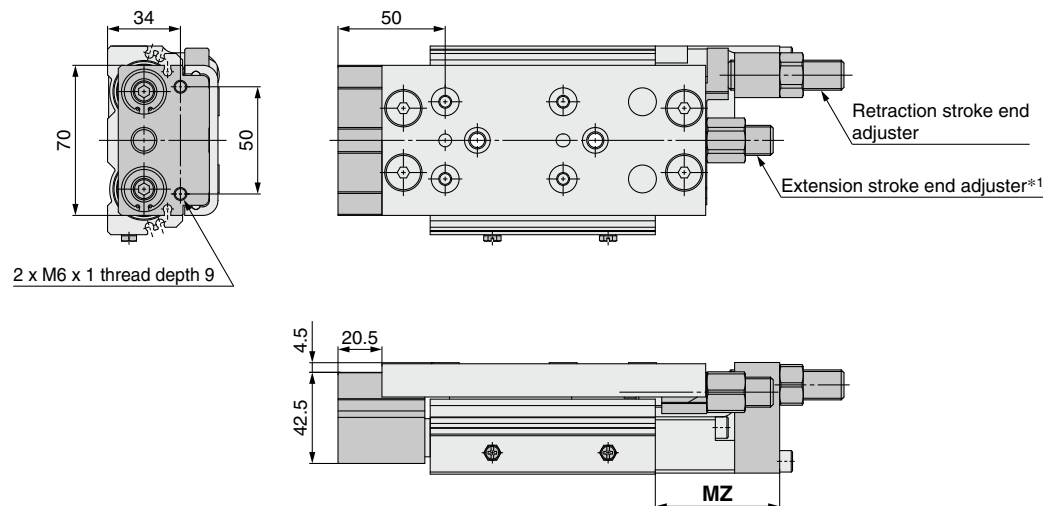


Dimensions: MXQ **25A** [Functional Option]

**MXQ 25A-□□8** Buffer, Centralized adjuster (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

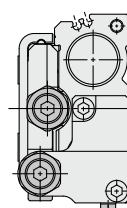
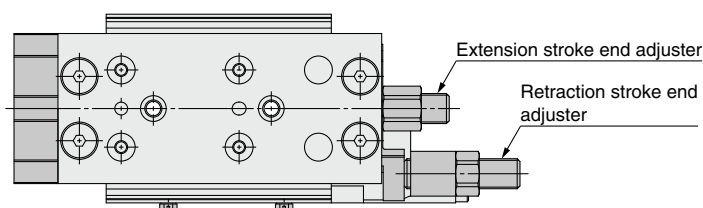


| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ25A-10Z□8    | 48 |
| MXQ25A-20Z□8    | 58 |
| MXQ25A-30Z□8    |    |
| MXQ25A-40Z□8    |    |
| MXQ25A-50Z□8    |    |
| MXQ25A-75Z□8    | 88 |
| MXQ25A-100Z□8   |    |
| MXQ25A-125Z□8   |    |
| MXQ25A-150Z□8   |    |

\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 25A-□□9** Buffer, Centralized adjuster / Symmetric type (ø25)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# Air Slide Table

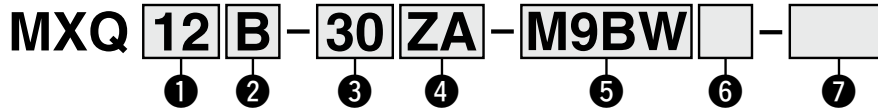
## Low Thrust with High Rigidity Type

# MXQ□B Series

∅6, ∅8, ∅12, ∅16, ∅20



### How to Order



| 1<br>Bore size | 2 Body option      |                      | 3 Standard stroke [mm]                   |
|----------------|--------------------|----------------------|--|
|                | Standard type<br>B | Symmetric type<br>BL |  |
| 6              |                    |                      | 10, 20, 30, 40, 50*, 75*                 |
| 8              |                    |                      | 10, 20, 30, 40, 50, 75*, 100*            |
| 12             |                    |                      | 10, 20, 30, 40, 50, 75, 100, 125         |
| 16             |                    | —*1                  | 10, 20, 30, 40, 50, 75, 100*, 125*, 150* |
| 20             |                    |                      | 10, 20, 30, 40, 50, 75, 100, 125*, 150*  |

\*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type.

\* The operating speed range of the strokes marked with an asterisk (\*) is 50 to 300 mm/s. (Without stroke adjuster)

#### 4 Adjuster options

| Symbol | Adjuster type*3               |                           | Adjuster mounting position*1 |                       |   |
|--------|-------------------------------|---------------------------|------------------------------|-----------------------|---|
|        |                               |                           | Extension stroke end         | Retraction stroke end |   |
| Z      | Without adjuster              |                           |                              |                       |   |
| ZA     |                               |                           | ●                            | ●                     |   |
| ZB     | Metal stopper with bumper     |                           | ●                            |                       |   |
| ZC     |                               |                           |                              | ●                     |   |
| ZD     |                               |                           | ●                            | ●                     |   |
| ZE     | Rubber stopper                |                           | ●                            |                       |   |
| ZF     |                               |                           |                              | ●                     |   |
| ZG     |                               |                           | ●                            | ●                     |   |
| ZH     | Shock absorber/RJ             |                           | ●                            |                       |   |
| ZJ     |                               |                           |                              | ●                     |   |
| ZK     |                               |                           | ●                            | ●                     |   |
| ZL     | Metal stopper                 |                           | ●                            |                       |   |
| ZM     |                               |                           |                              | ●                     |   |
| ZN     | Shorter total length type*2   | Without adjuster          | /                            |                       |   |
| ZP     |                               | Rubber stopper            |                              | ●                     |   |
| ZQ     |                               | Shock absorber/RJ         |                              | ●                     |   |
| ZR     |                               | Metal stopper with bumper |                              | ●                     |   |
| ZS     |                               | Metal stopper             |                              | ●                     |   |
| ZT     | Extension stroke end adjuster | Rubber stopper            | ●                            | ●                     |   |
| ZBF    |                               | Metal stopper with bumper | Shock absorber/RJ            | ●                     | ● |
| ZBJ    |                               |                           | Metal stopper                | ●                     | ● |
| ZBM    |                               | Rubber stopper            | Metal stopper with bumper    | ●                     | ● |
| ZBZ    |                               |                           | Shock absorber/RJ            | ●                     | ● |
| ZCZ    | Shock absorber/RJ             | Metal stopper             | ●                            | ●                     |   |
| ZCF    |                               | Metal stopper with bumper | ●                            | ●                     |   |
| ZCH    | Metal stopper                 | Rubber stopper            | ●                            | ●                     |   |
| ZCJ    |                               | Metal stopper             | ●                            | ●                     |   |
| ZCL    | Shock absorber/RJ             | Metal stopper with bumper | ●                            | ●                     |   |
| ZCM    |                               | Rubber stopper            | ●                            | ●                     |   |
| ZCN    | Metal stopper                 | Shock absorber/RJ         | ●                            | ●                     |   |
| ZCP    |                               | Metal stopper             | ●                            | ●                     |   |

#### 5 Auto switch

Nil Without auto switch

\* For applicable auto switches, refer to the next page.

#### 6 Number of auto switches

|     |   |
|-----|---|
| Nil | 2 |
| S   | 1 |
| n   | n |

#### 7 Made to order

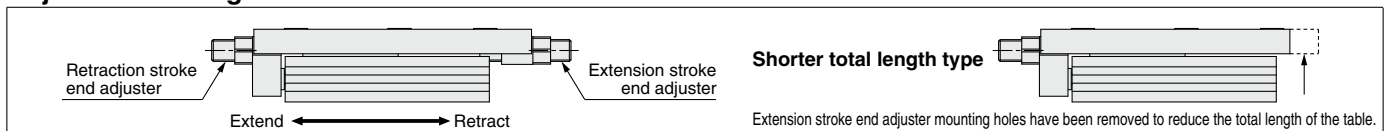
For details, refer to the next page.

\*1 ●: Shipped together with the product, but not assembled  
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

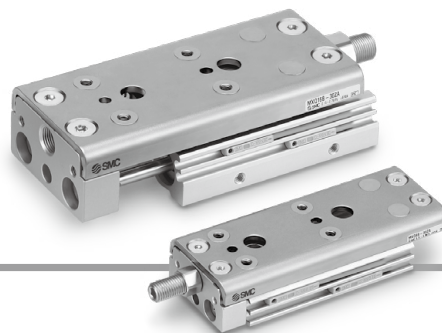
\*2 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

\*3 The metal stopper with bumper option is not available for ∅6.

#### Adjuster Mounting Position



# Air Slide Table/Low Thrust with High Rigidity Type **MXQ□B Series**



**Applicable Auto Switches**/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

| Type                    | Special function | Electrical entry | Indicator light | Wiring (Output) | Load voltage    |                        | Auto switch model      |             | Lead wire length [m]   |       |             |            | Pre-wired connector | Applicable load |            |            |
|-------------------------|------------------|------------------|-----------------|-----------------|-----------------|------------------------|------------------------|-------------|------------------------|-------|-------------|------------|---------------------|-----------------|------------|------------|
|                         |                  |                  |                 |                 | DC              | AC                     | Perpendicular          | In-line     | 0.5 (Nil)              | 1 (M) | 3 (L)       | 5 (Z)      |                     |                 |            |            |
| Solid state auto switch | —                | Grommet          | Yes             | 3-wire (NPN)    | 24 V            | 5 V, 12 V              | —                      | <b>M9NV</b> | <b>M9N</b>             | ●     | ●           | ●          | ○                   | ○               | IC circuit | Relay, PLC |
|                         |                  |                  |                 | 3-wire (PNP)    |                 |                        |                        | <b>M9PV</b> | <b>M9P</b>             | ●     | ●           | ●          | ○                   |                 |            |            |
|                         | 2-wire           |                  |                 | 5 V, 12 V       | <b>M9BV</b>     | <b>M9B</b>             | ●                      | ●           | ●                      | ○     | ○           |            |                     |                 |            |            |
|                         | 3-wire (NPN)     |                  |                 |                 | <b>M9NVV</b>    | <b>M9NV</b>            | ●                      | ●           | ●                      | ○     |             |            |                     |                 |            |            |
|                         | 3-wire (PNP)     |                  |                 | <b>M9PVV</b>    | <b>M9PV</b>     | ●                      | ●                      | ●           | ○                      | ○     |             |            |                     |                 |            |            |
|                         | 2-wire           |                  |                 | <b>M9BWW</b>    | <b>M9BW</b>     | ●                      | ●                      | ●           | ○                      |       |             |            |                     |                 |            |            |
|                         | 3-wire (NPN)     |                  |                 | 5 V, 12 V       | <b>M9NAV</b> *1 | <b>M9NA</b> *1         | ○                      | ○           | ●                      | ○     | ○           |            |                     |                 |            |            |
|                         | 3-wire (PNP)     |                  |                 |                 | <b>M9PAV</b> *1 | <b>M9PA</b> *1         | ○                      | ○           | ●                      | ○     |             |            |                     |                 |            |            |
|                         | 2-wire           |                  |                 | <b>M9BAV</b> *1 | <b>M9BA</b> *1  | ○                      | ○                      | ●           | ○                      | ○     |             |            |                     |                 |            |            |
|                         | —                |                  |                 | Grommet         | Yes             | 3-wire (Equiv. to NPN) | 24 V                   | 12 V        | 100 V<br>100 V or less |       | <b>A96V</b> | <b>A96</b> | ●                   | —               | ●          |            |
| —                       | 2-wire           | <b>A93V</b> *2   | <b>A93</b>      |                 |                 | ●                      |                        |             |                        | ●     | ●           | ●          | —                   | Relay, PLC      |            |            |
| Feed auto switch        | —                | None             | None            | 2-wire          | 24 V            | 12 V                   | 100 V<br>100 V or less | <b>A90V</b> | <b>A90</b>             | ●     | —           | ●          |                     |                 | —          | —          |

\*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

\*2 1 m lead wire is only applicable to the D-A93.

\* Lead wire length symbols: 0.5 m .....Nil (Example) M9NW  
 1 m .....M (Example) M9NWM  
 3 m .....L (Example) M9NWL  
 5 m .....Z (Example) M9NWZ

\* Solid state auto switches marked with "○" are produced upon receipt of order.

\* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

\* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

\* Auto switches are shipped together, but not assembled.



## Made to Order

(For details, refer to pages 127 to 156.)

| Symbol | Specifications   |
|--------|--|
| -X7    | PTFE grease  |
| -X9    | Grease for food processing equipment                         |
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         |
| -X28   | Long adjustment nut and bolt                                 |
| -X33   | Without built-in auto switch magnet                          |
| -X39   | Fluororubber seal  |
| -X42   | Anti-corrosive guide unit                                    |
| -X45   | EPDM seal  |
| -X580  | Low-speed specification (15 to 50 mm/s)                      |
| -X2128 | Heat-resistant specification (-10 to 100°C)                  |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

## Moisture Control Tube IDK Series



When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions.

Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection



# MXQ□B Series

## Specifications

| Bore size [mm]   | 6   | 8 | 12 | 16 | 20 |
|--|---|---|----|----|----|
| <b>Piping port size</b>                                | M5 x 0.8  |   |    |    |    |
| <b>Fluid</b>   | Air   |   |    |    |    |
| <b>Action</b>  | Double acting   |   |    |    |    |
| <b>Operating pressure</b>                              | 0.15 to 0.7 MPa*1   |   |    |    |    |
| <b>Proof pressure</b>                                  | 1.05 MPa  |   |    |    |    |
| <b>Ambient and fluid temperatures</b>                  | -10 to 60°C   |   |    |    |    |
| <b>Operating speed range (Average operating speed)</b> | 50 to 500 mm/s<br>(Metal stopper with bumper: 50 to 200 mm/s)<br>(Metal stopper: 50 to 200 mm/s)<br>* in the standard stroke table on page 53: 50 to 300 mm/s |   |    |    |    |
| <b>Cushion (Without stroke adjuster)</b>               | Internal rubber bumper  |   |    |    |    |
| <b>Cushion (With stroke adjuster)</b>                  | Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper  |   |    |    |    |
| <b>Lubrication</b>                                     | Non-lube  |   |    |    |    |
| <b>Auto switch</b>                                     | Solid state auto switch, Reed auto switch (2-wire, 3-wire)<br>2-color indicator solid state auto switch (2-wire, 3-wire)                                      |   |    |    |    |
| <b>Stroke length tolerance</b>                         | +2 to 0 mm  |   |    |    |    |

\*1 Refer to page 56 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

## Weight

| Model         | Standard stroke [mm] |       |       |       |       |       |       |       |       | Reduction of the shorter total length type | Additional weight of adjuster option |                       |
|---------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|--------------------------------------|-----------------------|
|               | 10                   | 20    | 30    | 40    | 50    | 75    | 100   | 125   | 150   |  | Extension stroke end                 | Retraction stroke end |
| <b>MXQ6B</b>  | 120                  | 140   | 150   | 180   | 230   | 260   | —     | —     | —     | -6   | 10                                   | 8                     |
| <b>MXQ8B</b>  | 220                  | 240   | 260   | 310   | 330   | 450   | 500   | —     | —     | -12  | 20                                   | 16                    |
| <b>MXQ12B</b> | 420                  | 450   | 480   | 550   | 580   | 700   | 890   | 970   | —     | -21  | 40                                   | 30                    |
| <b>MXQ16B</b> | 710                  | 730   | 770   | 820   | 920   | 1,100 | 1,400 | 1,700 | 1,800 | -33  | 70                                   | 50 (80)               |
| <b>MXQ20B</b> | 1,200                | 1,200 | 1,300 | 1,300 | 1,600 | 1,700 | 2,000 | 2,600 | 2,700 | -60  | 110                                  | 80                    |

\* Value in ( ) is the additional weight of the shock absorber.

## Weight of Moving Parts

| Model         | Standard stroke [mm] |     |     |     |     |     |     |       |       | Reduction of the shorter total length type | Additional weight of adjuster option |                       |
|---------------|----------------------|-----|-----|-----|-----|-----|-----|-------|-------|--|--------------------------------------|-----------------------|
|               | 10                   | 20  | 30  | 40  | 50  | 75  | 100 | 125   | 150   |  | Extension stroke end                 | Retraction stroke end |
| <b>MXQ6B</b>  | 63                   | 68  | 76  | 87  | 106 | 125 | —   | —     | —     | -6   | 10                                   | 8                     |
| <b>MXQ8B</b>  | 116                  | 128 | 141 | 161 | 174 | 224 | 255 | —     | —     | -12  | 20                                   | 16                    |
| <b>MXQ12B</b> | 226                  | 241 | 262 | 293 | 313 | 373 | 454 | 504   | —     | -21  | 40                                   | 30                    |
| <b>MXQ16B</b> | 331                  | 352 | 375 | 399 | 434 | 510 | 661 | 720   | 779   | -33  | 70                                   | 50 (80)               |
| <b>MXQ20B</b> | 591                  | 601 | 637 | 672 | 743 | 831 | 963 | 1,157 | 1,246 | -60  | 110                                  | 80                    |

\* Value in ( ) is the additional weight of the shock absorber.

## Maximum Load Weight

| Model         | Without adjuster       | Adjuster option |                           |                                 |                               |               |
|---------------|------------------------|-----------------|---------------------------|---------------------------------|-------------------------------|---------------|
|               | Internal rubber bumper | Rubber stopper  | Metal stopper with bumper | Shock absorber/RJ<br>Horizontal | Shock absorber/RJ<br>Vertical | Metal stopper |
| <b>MXQ6B</b>  | 0.6                    | 1               | —                         | 1                               | —                             | 1             |
| <b>MXQ8B</b>  | 1                      | 2               | 1                         | 1.5                             | 1                             | 2             |
| <b>MXQ12B</b> | 2                      | 4               | 2                         | 4                               | 2.5                           | 4             |
| <b>MXQ16B</b> | 4                      | 6               | 4                         | 6                               | —                             | 6             |
| <b>MXQ20B</b> | 6                      | 9               | 6                         | 9                               | 6                             | 9             |

## Theoretical Output



The dual rod ensures an output twice that of current cylinders. [N]

| Bore size [mm] | Rod size [mm] | Operating direction | Piston area [mm <sup>2</sup> ] | Operating pressure [MPa] |     |     |     |     |     |  |
|----------------|---------------|---------------------|--------------------------------|--------------------------|-----|-----|-----|-----|-----|--|
|                |               |                     |                                | 0.2                      | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |  |
| <b>6</b>       | 3             | OUT                 | 57                             | 11                       | 17  | 23  | 29  | 34  | 40  |  |
|                |               | IN                  | 42                             | 8                        | 13  | 17  | 21  | 25  | 29  |  |
| <b>8</b>       | 4             | OUT                 | 101                            | 20                       | 30  | 40  | 51  | 61  | 71  |  |
|                |               | IN                  | 75                             | 15                       | 23  | 30  | 38  | 45  | 53  |  |
| <b>12</b>      | 6             | OUT                 | 226                            | 45                       | 68  | 90  | 113 | 136 | 158 |  |
|                |               | IN                  | 170                            | 34                       | 51  | 68  | 85  | 102 | 119 |  |
| <b>16</b>      | 6             | OUT                 | 402                            | 80                       | 121 | 161 | 201 | 241 | 281 |  |
|                |               | IN                  | 346                            | 69                       | 104 | 138 | 173 | 207 | 242 |  |
| <b>20</b>      | 8             | OUT                 | 628                            | 126                      | 188 | 251 | 314 | 377 | 440 |  |
|                |               | IN                  | 528                            | 106                      | 158 | 211 | 264 | 317 | 369 |  |

\* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 56.



## Optional Specifications

### Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

#### Metal Stopper with Bumper

| Model  | MXQ8B  | MXQ12B  | MXQ16B  | MXQ20B    |
|--|--------|---------|---------|-----------|
| Max. absorbed energy [J]                                       | 0.018  | 0.04    | 0.08    | 0.12      |
| Stroke absorption [mm]   | 2      | 2.8     | 3.6     | 4.4       |
| Min. operating pressure of metal stopper with bumper*1*2 [MPa] | 0.3    | 0.3     | 0.2     | 0.2       |
| Reference) Full compression force of bumper [N]                | 20     | 42      | 65      | 97        |
| Mounting screw size [mm]                                       | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

\*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part  
 When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

\*2 Not available for ø6

#### Rubber Stopper

| Model                    | MXQ6B     | MXQ8B  | MXQ12B  | MXQ16B  | MXQ20B    |
|--------------------------|-----------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.06      | 0.12   | 0.2     | 0.4     | 0.6       |
| Mounting screw size [mm] | M6 x 0.75 | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

#### Shock Absorber/RJ

| Model                                | MXQ6B      | MXQ8B     | MXQ12B  | MXQ16B | MXQ20B    |
|--------------------------------------|------------|-----------|---------|--------|-----------|
| Max. absorbed energy [J]             | 0.35       | 0.5       | 1.5     | 3      | 3.7       |
| Stroke absorption [mm]               | 3          | 5         | 6       | 7      | 10        |
| Collision speed [mm/s]               | 300 to 500 | 50 to 500 |         |        |           |
| Max. operating frequency [cycle/min] | 80         | 80        | 70      |        | 45        |
| Max. allowable thrust [N]            | 150        | 245       | 422     |        | 814       |
| Spring force (Extended) [N]          | 1.3        | 2.8       | 5.4     |        | 6.4       |
| Spring force (Compressed) [N]        | 3.9        | 4.9       | 8       |        | 15        |
| Mounting screw size [mm]             | M6 x 0.75  | M8 x 1    | M10 x 1 |        | M14 x 1.5 |

#### Metal Stopper

| Model                    | MXQ6B     | MXQ8B  | MXQ12B  | MXQ16B  | MXQ20B    |
|--------------------------|-----------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.009     | 0.02   | 0.04    | 0.06    | 0.09      |
| Mounting screw size [mm] | M6 x 0.75 | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

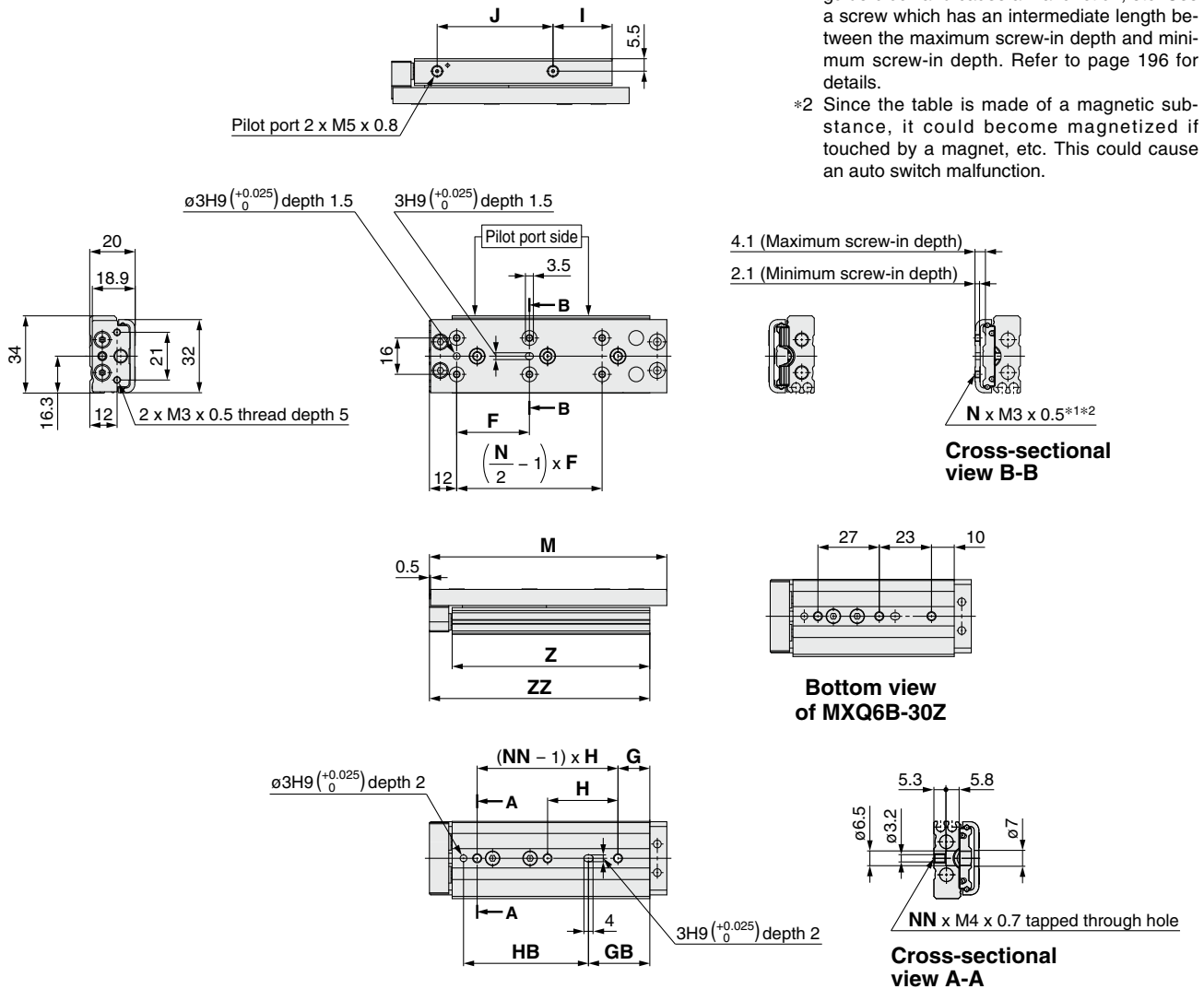
Made to Order

Model Selection

# MXQ□B Series

## Dimensions: MXQ **6B** [Standard]

### MXQ **6B**-□Z Standard type

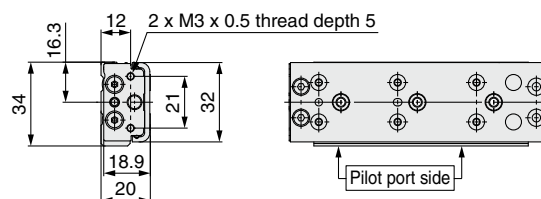


- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

### Dimensions

| Model     | F  | G  | GB | H  | HB | I  | J  | M     | N | NN | Z   | ZZ  |
|-----------|----|----|----|----|----|----|----|-------|---|----|-----|-----|
| MXQ6B-10Z | 25 | 15 | 9  | 25 | 37 | 10 | 31 | 68.5  | 4 | 2  | 51  | 61  |
| MXQ6B-20Z | 25 | 22 | 16 | 28 | 40 | 17 | 34 | 78.5  | 4 | 2  | 61  | 71  |
| MXQ6B-30Z | 26 | —  | 26 | —  | 40 | 20 | 41 | 88.5  | 6 | 3  | 71  | 81  |
| MXQ6B-40Z | 32 | 14 | 27 | 31 | 55 | 26 | 51 | 104.5 | 6 | 3  | 87  | 97  |
| MXQ6B-50Z | 46 | 16 | 54 | 29 | 55 | 40 | 64 | 131.5 | 6 | 4  | 114 | 124 |
| MXQ6B-75Z | 50 | 15 | 56 | 30 | 55 | 20 | 86 | 156.5 | 6 | 4  | 116 | 126 |

### MXQ **6BL**-□Z Symmetric type

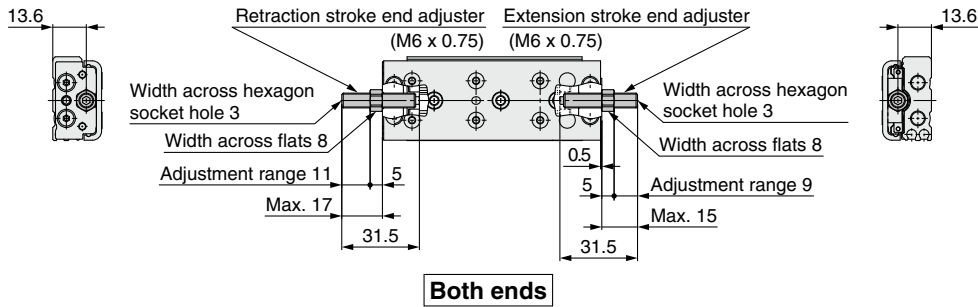


\* Dimensions other than those listed above are the same as those for the standard type.

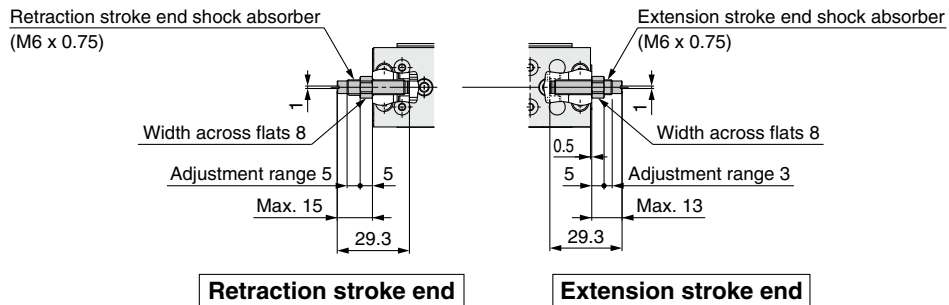
Dimensions: MXQ **6B** [Adjuster Option]

MXQ **6B**-□ With adjuster option (∅6)

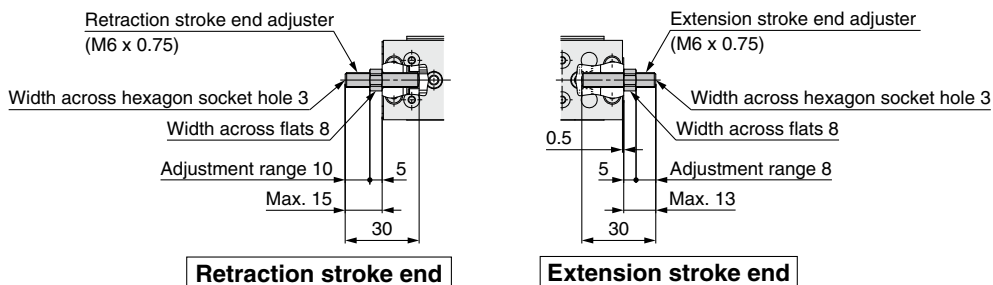
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

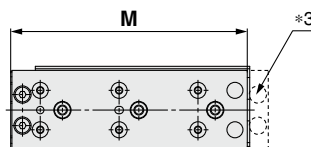


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **6B**-□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions** [mm]

| Model      | M   |
|------------|-----|
| MXQ6B-10ZN | 60  |
| MXQ6B-20ZN | 70  |
| MXQ6B-30ZN | 80  |
| MXQ6B-40ZN | 96  |
| MXQ6B-50ZN | 123 |
| MXQ6B-75ZN | 148 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

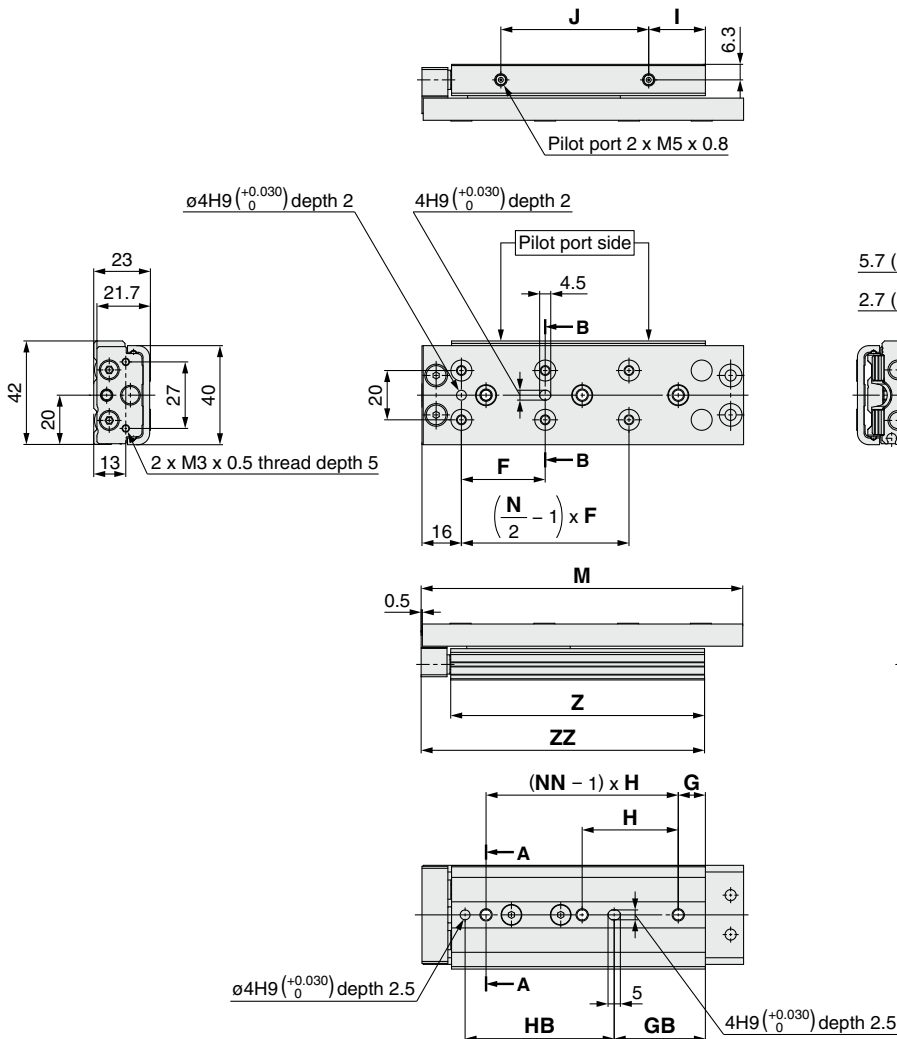
Made to Order

Model Selection

# MXQ□B Series

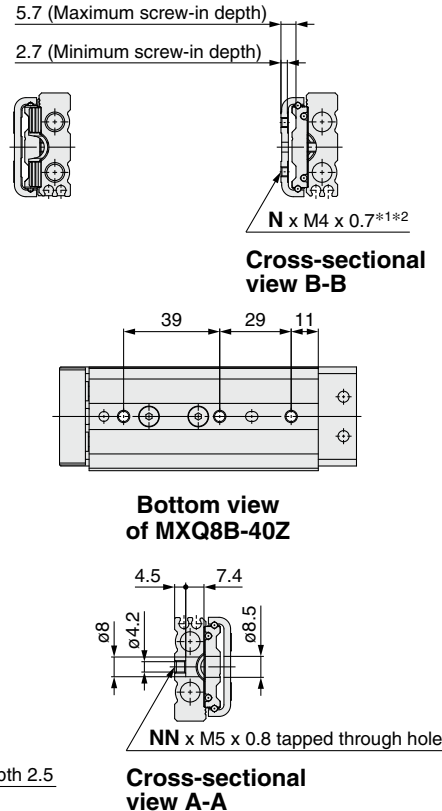
## Dimensions: MXQ **8B** [Standard]

### MXQ **8B**-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

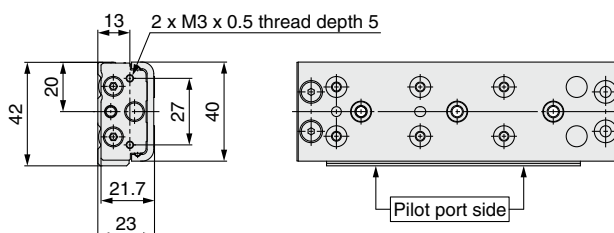
\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

| Model      | F  | G  | GB | H  | HB  | I  | J   | M     | N  | NN | Z   | ZZ  |
|------------|----|----|----|----|-----|----|-----|-------|----|----|-----|-----|
| MXQ8B-10Z  | 28 | 17 | 11 | 32 | 46  | 11 | 32  | 82.5  | 4  | 2  | 63  | 75  |
| MXQ8B-20Z  | 28 | 19 | 11 | 32 | 48  | 13 | 32  | 92.5  | 4  | 2  | 65  | 77  |
| MXQ8B-30Z  | 38 | 21 | 11 | 40 | 58  | 15 | 40  | 102.5 | 4  | 2  | 75  | 87  |
| MXQ8B-40Z  | 34 | —  | 27 | —  | 60  | 23 | 50  | 120.5 | 6  | 3  | 93  | 105 |
| MXQ8B-50Z  | 34 | 11 | 37 | 39 | 60  | 23 | 60  | 130.5 | 6  | 3  | 103 | 115 |
| MXQ8B-75Z  | 36 | 25 | 41 | 36 | 100 | 42 | 85  | 174.5 | 8  | 4  | 147 | 159 |
| MXQ8B-100Z | 36 | 14 | 66 | 36 | 100 | 42 | 110 | 199.5 | 10 | 5  | 172 | 184 |

### MXQ **8BL**-□Z Symmetric type



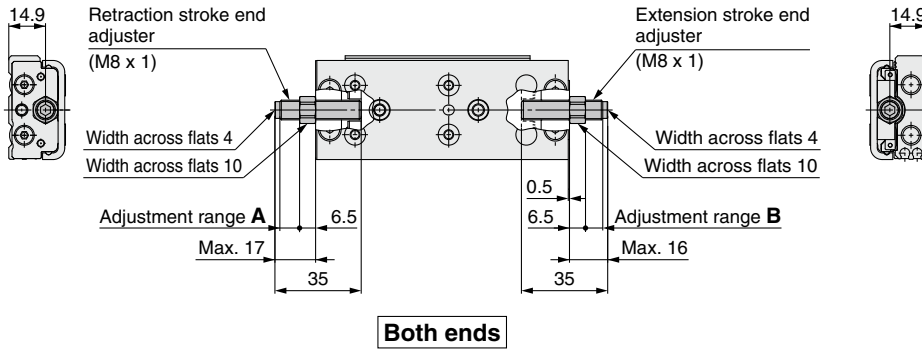
\* Dimensions other than those listed above are the same as those for the standard type.

# Dimensions: MXQ **8B** [Adjuster Option]

## MXQ **8B**-□□□ With adjuster option (ø8)

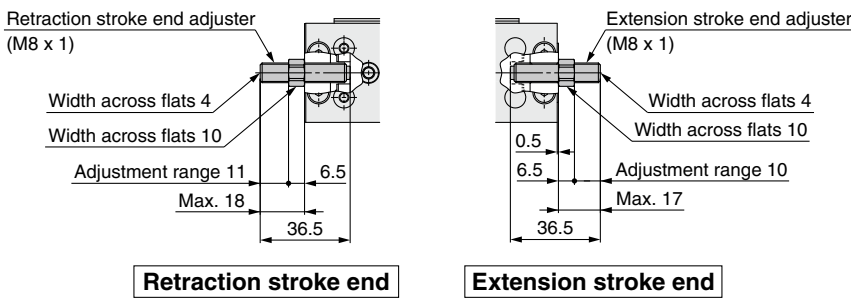
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

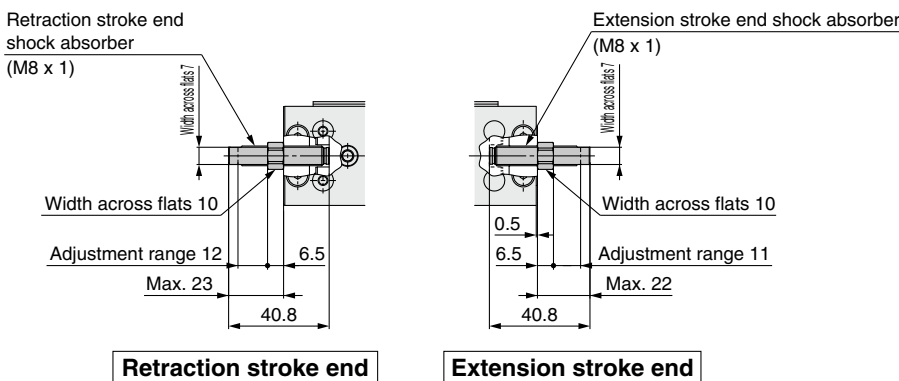


| Dimensions                                 |    | [mm] |  |
|--|----|------|--|
| Adjuster option                            | A  | B    |  |
| Metal stopper with bumper (ZA, ZB, ZC, ZS) | 8  | 7    |  |
| Metal stopper (ZK, ZL, ZM, ZT)             | 10 | 9    |  |

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

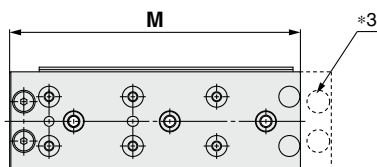


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **8B**-□□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

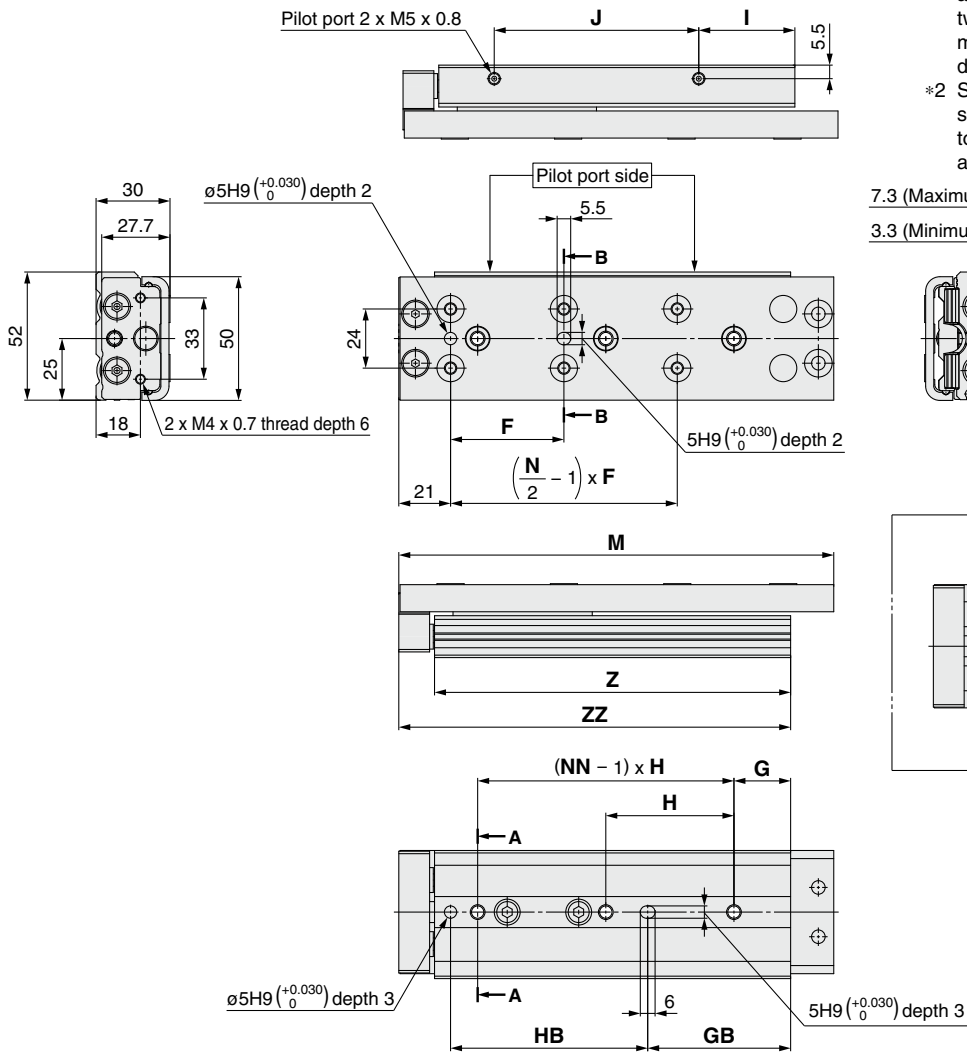
| Dimensions  |     | [mm] |
|-------------|-----|------|
| Model       | M   |      |
| MXQ8B-10ZN  | 72  |      |
| MXQ8B-20ZN  | 82  |      |
| MXQ8B-30ZN  | 92  |      |
| MXQ8B-40ZN  | 110 |      |
| MXQ8B-50ZN  | 120 |      |
| MXQ8B-75ZN  | 164 |      |
| MXQ8B-100ZN | 189 |      |

\* Dimensions other than those listed above are the same as those for the standard type.

# MXQ□B Series

## Dimensions: MXQ **12B** [Standard]

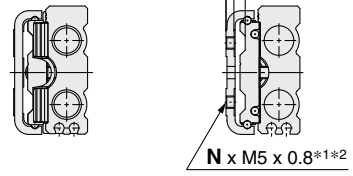
### MXQ **12B**-□Z Standard type



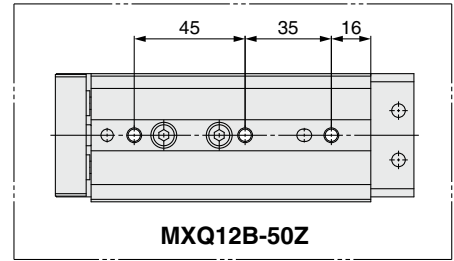
\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

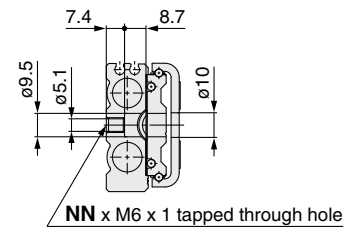
7.3 (Maximum screw-in depth)  
3.3 (Minimum screw-in depth)



**Cross-sectional view B-B**



**MXQ12B-50Z**

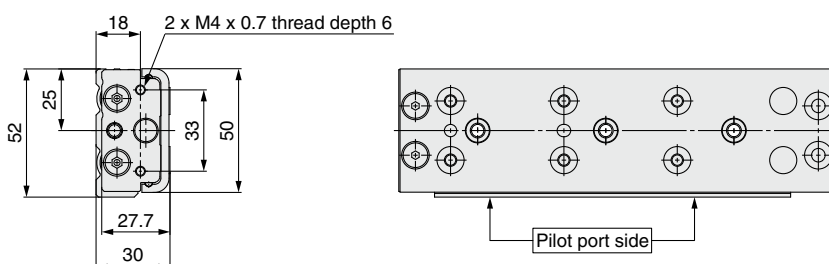


**Cross-sectional view A-A**

#### Dimensions

| Model       | F  | G  | GB  | H  | HB | I    | J    | M     | N  | NN | Z     | ZZ  |
|-------------|----|----|-----|----|----|------|------|-------|----|----|-------|-----|
| MXQ12B-10Z  | 38 | 16 | 8   | 39 | 58 | 21   | 29   | 98.5  | 4  | 2  | 72.5  | 87  |
| MXQ12B-20Z  | 38 | 20 | 12  | 39 | 58 | 25   | 29   | 108.5 | 4  | 2  | 76.5  | 91  |
| MXQ12B-30Z  | 48 | 21 | 30  | 48 | 50 | 26.5 | 37.5 | 118.5 | 4  | 2  | 86.5  | 101 |
| MXQ12B-40Z  | 58 | 28 | 17  | 58 | 80 | 33.5 | 47.5 | 135.5 | 4  | 2  | 103.5 | 118 |
| MXQ12B-50Z  | 40 | —  | 27  | —  | 80 | 33   | 58   | 145.5 | 6  | 3  | 113.5 | 128 |
| MXQ12B-75Z  | 46 | 23 | 58  | 52 | 80 | 39   | 83   | 176.5 | 6  | 3  | 144.5 | 159 |
| MXQ12B-100Z | 44 | 39 | 102 | 44 | 80 | 57   | 109  | 220.5 | 8  | 4  | 188.5 | 203 |
| MXQ12B-125Z | 44 | 20 | 127 | 44 | 80 | 57   | 134  | 245.5 | 10 | 5  | 213.5 | 228 |

### MXQ **12BL**-□Z Symmetric type



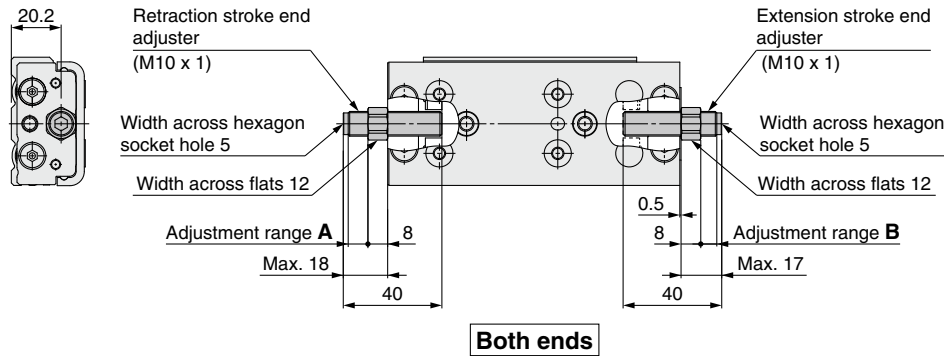
\* Dimensions other than those listed above are the same as those for the standard type.

# Dimensions: MXQ **12B** [Adjuster Option]

## MXQ 12B-□□□□ With adjuster option (ø12)

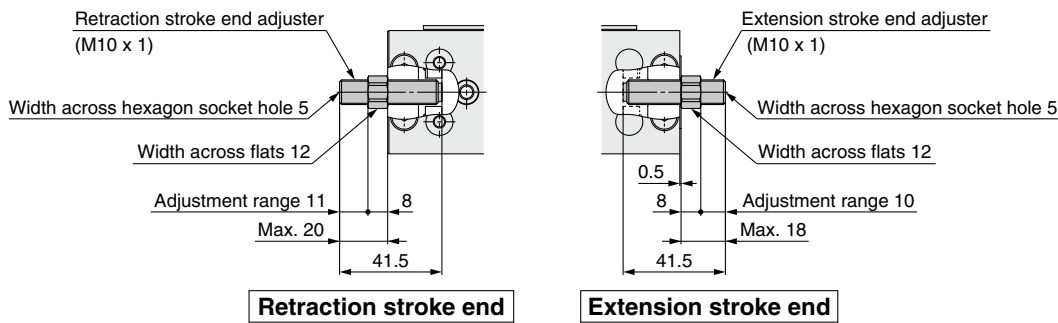
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

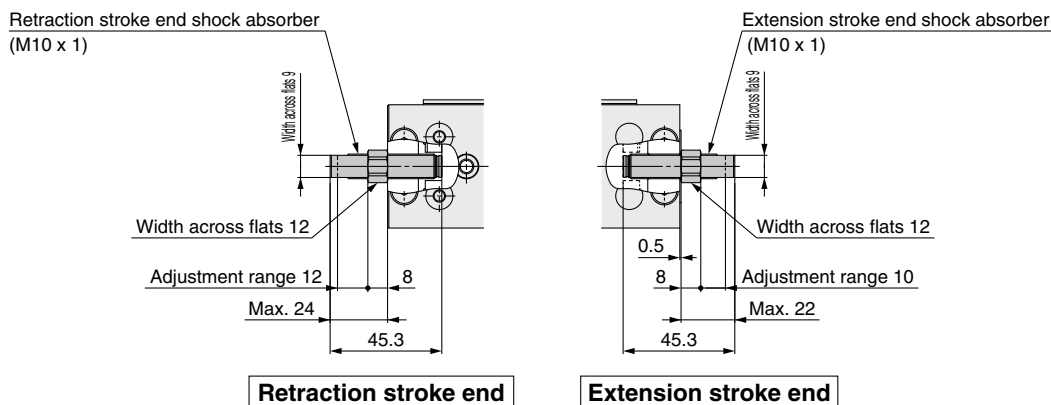


| Dimensions [mm]                            |    |   |
|--|----|---|
| Adjuster option                            | A  | B |
| Metal stopper with bumper (ZA, ZB, ZC, ZS) | 8  | 6 |
| Metal stopper (ZK, ZL, ZM, ZT)             | 10 | 8 |

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

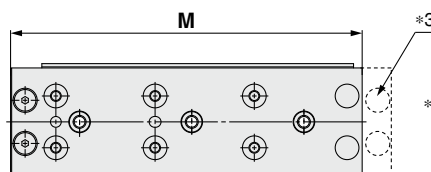


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 12B-□□ZN Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ12B-10ZN     | 85  |
| MXQ12B-20ZN     | 95  |
| MXQ12B-30ZN     | 105 |
| MXQ12B-40ZN     | 122 |
| MXQ12B-50ZN     | 132 |
| MXQ12B-75ZN     | 163 |
| MXQ12B-100ZN    | 207 |
| MXQ12B-125ZN    | 232 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

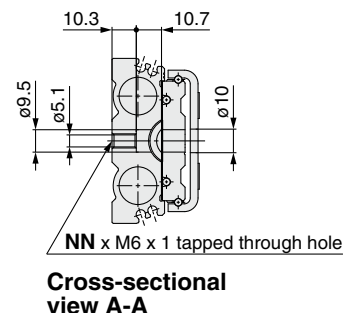
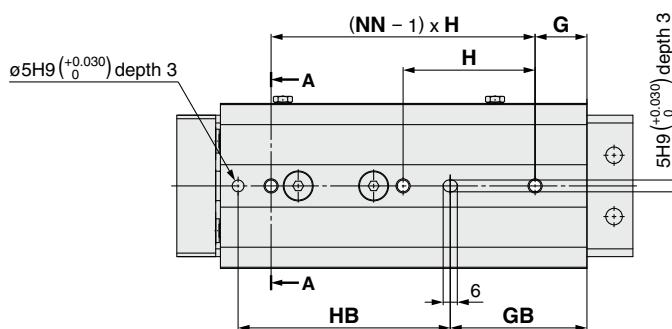
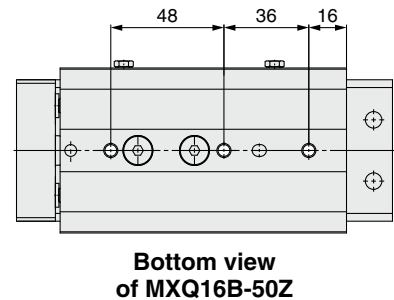
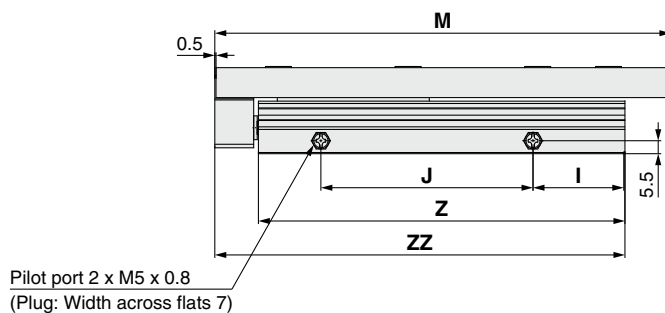
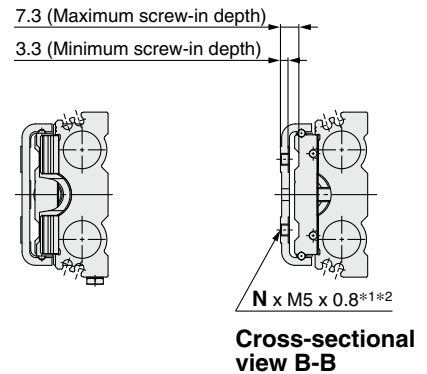
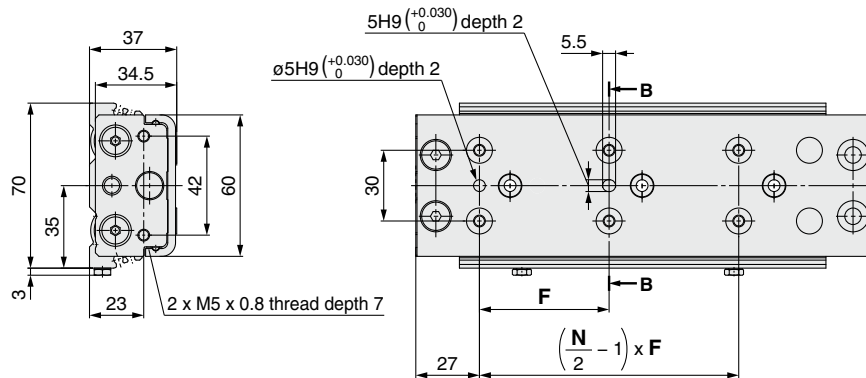
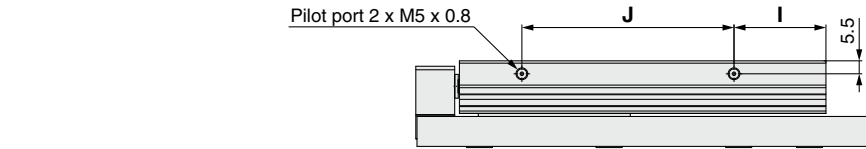


# MXQ□B Series

## Dimensions: MXQ **16B** [Standard]

### MXQ **16B**-□Z Standard type

- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

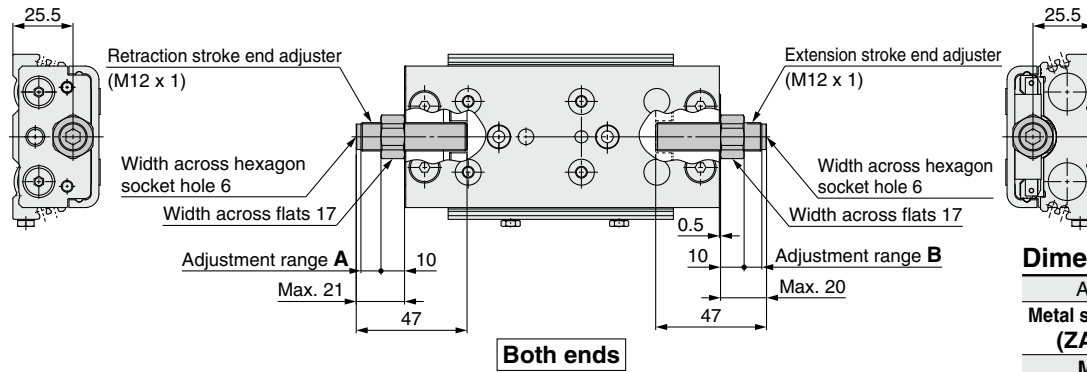
| Model       | F  | G  | GB  | H  | HB | I    | J    | M     | N | NN | Z     | ZZ  |
|-------------|----|----|-----|----|----|------|------|-------|---|----|-------|-----|
| MXQ16B-10Z  | 45 | 18 | 8   | 46 | 70 | 40   | 18.5 | 113.5 | 4 | 2  | 85.5  | 104 |
| MXQ16B-20Z  | 40 | 18 | 8   | 46 | 70 | 28.5 | 30   | 123.5 | 4 | 2  | 85.5  | 104 |
| MXQ16B-30Z  | 48 | 28 | 18  | 46 | 70 | 22.5 | 46   | 133.5 | 4 | 2  | 95.5  | 114 |
| MXQ16B-40Z  | 58 | 28 | 18  | 56 | 80 | 22.5 | 56   | 143.5 | 4 | 2  | 105.5 | 124 |
| MXQ16B-50Z  | 42 | —  | 34  | —  | 80 | 35.5 | 59   | 159.5 | 6 | 3  | 121.5 | 140 |
| MXQ16B-75Z  | 55 | 22 | 58  | 56 | 90 | 44.5 | 84   | 193.5 | 6 | 3  | 155.5 | 174 |
| MXQ16B-100Z | 50 | 16 | 108 | 56 | 90 | 66.5 | 112  | 266.5 | 8 | 4  | 205.5 | 224 |
| MXQ16B-125Z | 55 | 32 | 133 | 59 | 90 | 68.5 | 135  | 291.5 | 8 | 4  | 230.5 | 249 |
| MXQ16B-150Z | 62 | 48 | 158 | 62 | 90 | 68.5 | 160  | 316.5 | 8 | 4  | 255.5 | 274 |

# Dimensions: MXQ **16B** [Adjuster Option]

## MXQ 16B-□□□ With adjuster option (ø16)

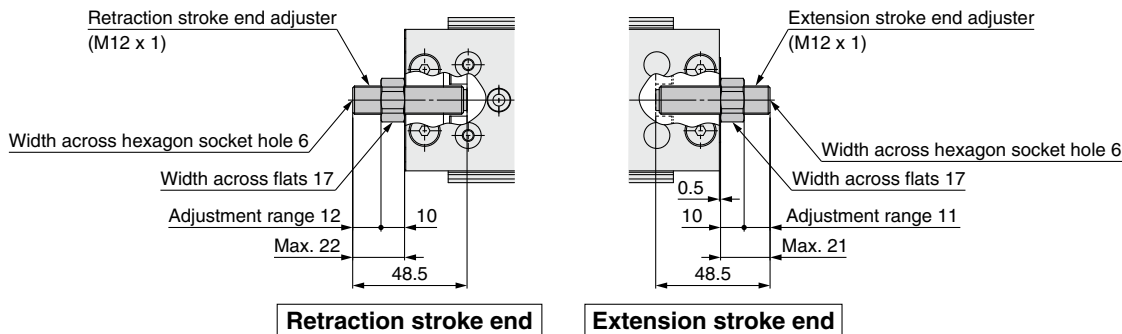
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

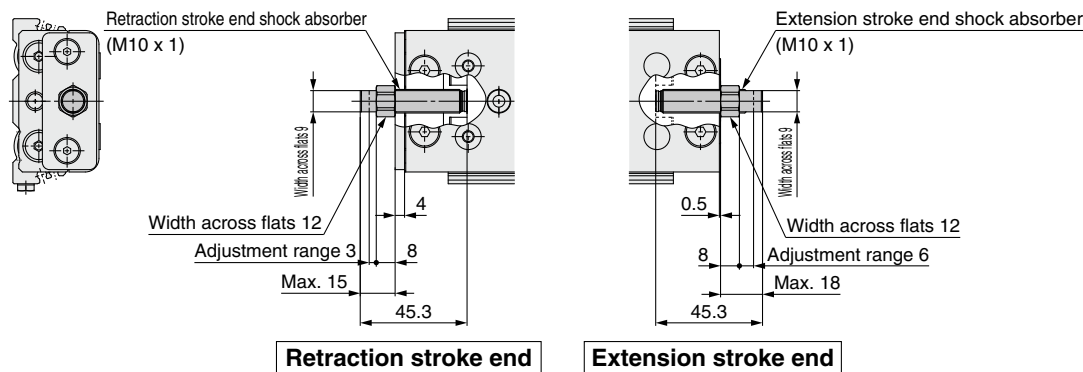


| Dimensions [mm]                            |    |   |
|--|----|---|
| Adjuster option                            | A  | B |
| Metal stopper with bumper (ZA, ZB, ZC, ZS) | 9  | 8 |
| Metal stopper (ZK, ZL, ZM, ZT)             | 10 | 9 |

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

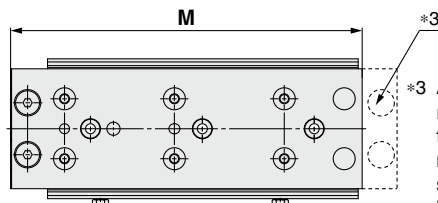


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 16B-□□Z<sup>N</sup> Shorter total length type



\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ16B-10ZN     | 96  |
| MXQ16B-20ZN     | 106 |
| MXQ16B-30ZN     | 116 |
| MXQ16B-40ZN     | 126 |
| MXQ16B-50ZN     | 142 |
| MXQ16B-75ZN     | 176 |
| MXQ16B-100ZN    | 249 |
| MXQ16B-125ZN    | 274 |
| MXQ16B-150ZN    | 299 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

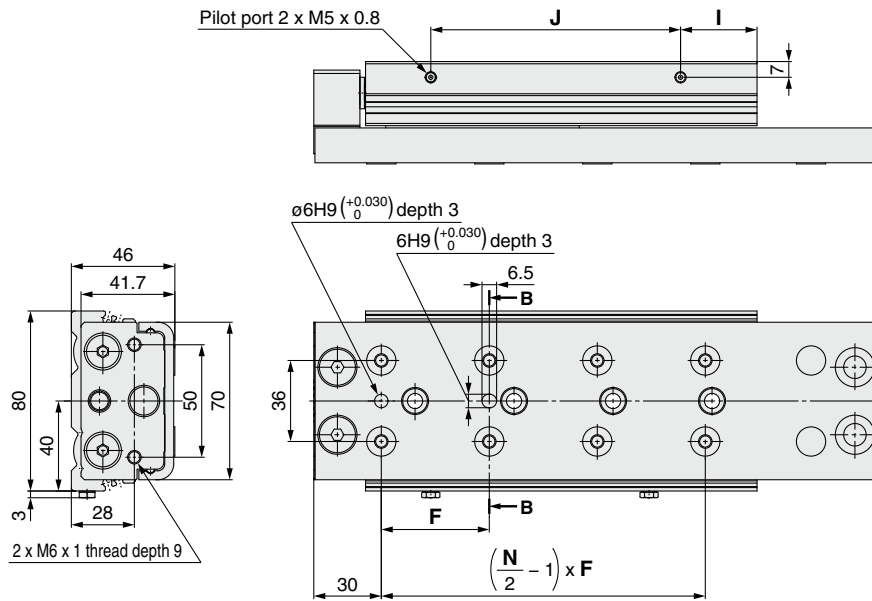
Made to Order

Model Selection

# MXQ□B Series

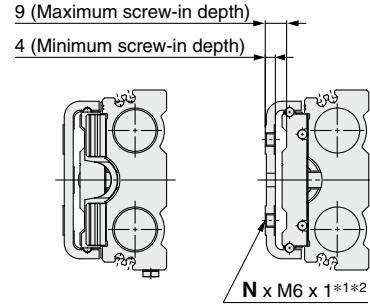
## Dimensions: MXQ **20B** [Standard]

### MXQ **20B**-□Z Standard type

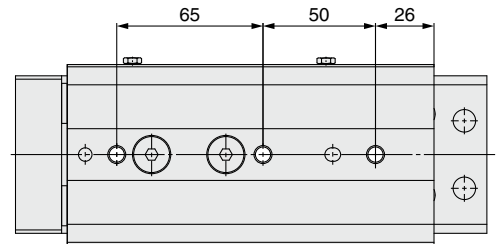
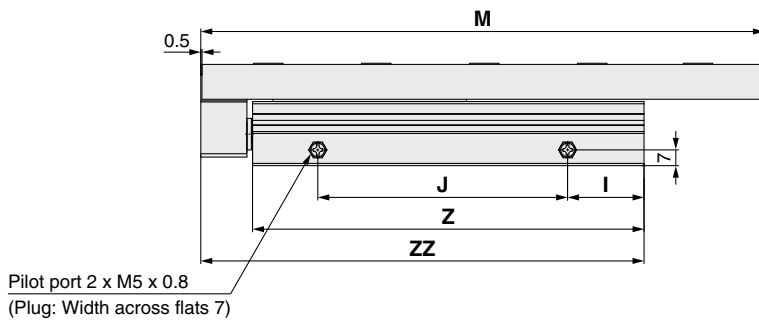


\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

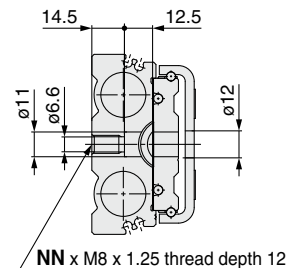
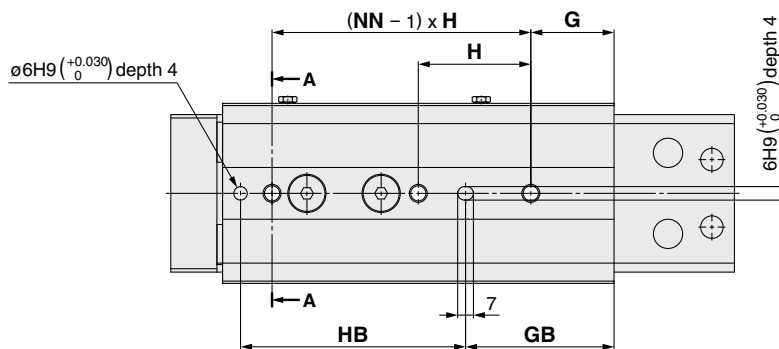
\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



**Cross-sectional view B-B**



**Bottom view of MXQ20B-75Z**



**Cross-sectional view A-A**

### Dimensions

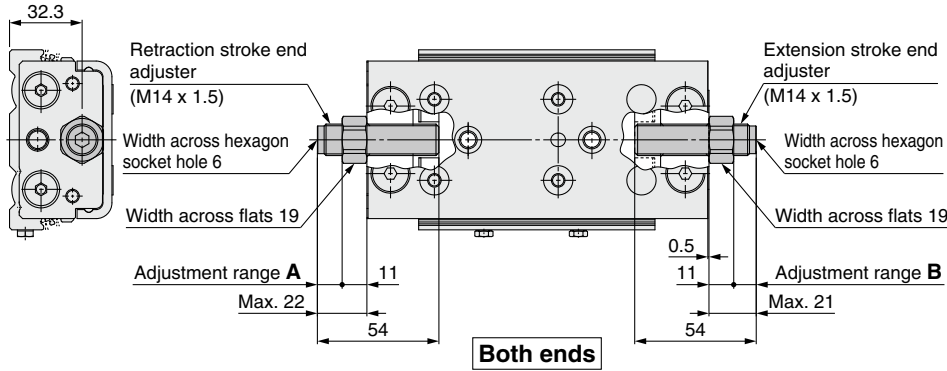
| Model       | F  | G  | GB | H  | HB  | I  | J   | M     | N | NN | Z   | ZZ  |
|-------------|----|----|----|----|-----|----|-----|-------|---|----|-----|-----|
| MXQ20B-10Z  | 55 | 18 | 7  | 55 | 80  | 30 | 36  | 131.5 | 4 | 2  | 95  | 118 |
| MXQ20B-20Z  | 46 | 18 | 7  | 55 | 80  | 30 | 36  | 141.5 | 4 | 2  | 95  | 118 |
| MXQ20B-30Z  | 55 | 28 | 17 | 55 | 80  | 34 | 42  | 151.5 | 4 | 2  | 105 | 128 |
| MXQ20B-40Z  | 65 | 28 | 17 | 65 | 90  | 34 | 52  | 161.5 | 4 | 2  | 115 | 138 |
| MXQ20B-50Z  | 75 | 36 | 20 | 80 | 110 | 47 | 62  | 184.5 | 4 | 2  | 138 | 161 |
| MXQ20B-75Z  | 60 | —  | 45 | —  | 110 | 48 | 86  | 209.5 | 6 | 3  | 163 | 186 |
| MXQ20B-100Z | 48 | 20 | 46 | 44 | 120 | 34 | 111 | 250.5 | 8 | 4  | 174 | 197 |
| MXQ20B-125Z | 60 | 18 | 60 | 66 | 170 | 73 | 136 | 314.5 | 8 | 4  | 238 | 261 |
| MXQ20B-150Z | 65 | 43 | 85 | 66 | 170 | 73 | 161 | 339.5 | 8 | 4  | 263 | 286 |

# Dimensions: MXQ **20B** [Adjuster Option]

## MXQ 20B-□□□□ With adjuster option (ø20)

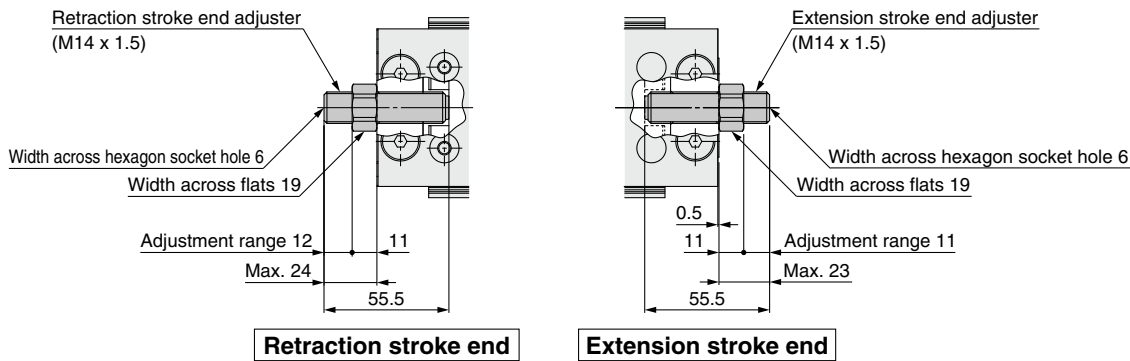
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

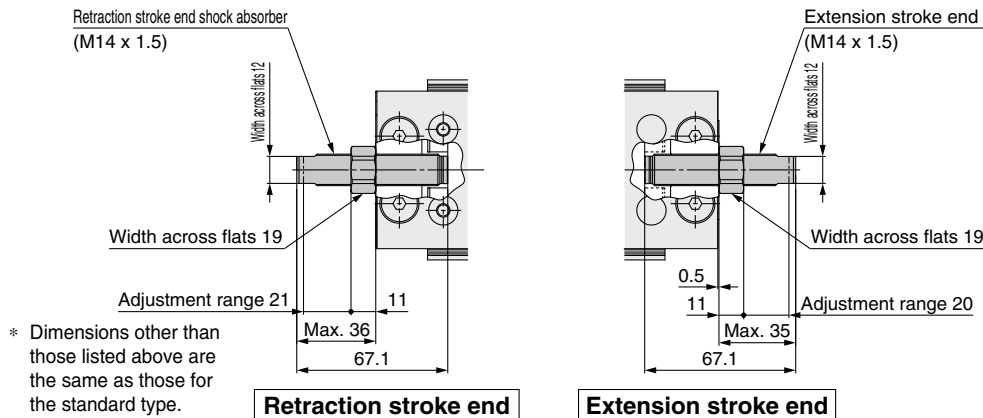


| Dimensions [mm]                            |    |    |
|--|----|----|
| Adjuster option                            | A  | B  |
| Metal stopper with bumper (ZA, ZB, ZC, ZS) | 8  | 7  |
| Metal stopper (ZK, ZL, ZM, ZT)             | 11 | 10 |

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

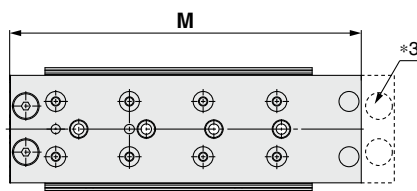


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 20B-□□ZN Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ20B-10ZN     | 110 |
| MXQ20B-20ZN     | 120 |
| MXQ20B-30ZN     | 130 |
| MXQ20B-40ZN     | 140 |
| MXQ20B-50ZN     | 163 |
| MXQ20B-75ZN     | 188 |
| MXQ20B-100ZN    | 229 |
| MXQ20B-125ZN    | 293 |
| MXQ20B-150ZN    | 318 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# Air Slide Table

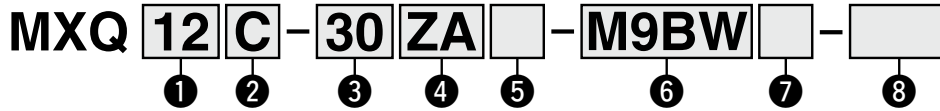
## Single Side-ported Type

# MXQ□C Series

ø8, ø12



### How to Order



| 1 Bore size | 2 Body option |                | 3 Standard stroke [mm]      |
|-------------|---------------|----------------|-----------------------------|
|             | Standard type | Symmetric type |                             |
| 8           | C             | CL             | 10, 20, 30, 40, 50, 75      |
|             |               |                |                             |
| 12          |               |                | 10, 20, 30, 40, 50, 75, 100 |

**5 Functional options**

| Symbol | Functional option                        |
|--------|--|
| Nil    | Without functional option                |
| 1      | With buffer                              |
| 2      | With end lock                            |
| 3      | Axial piping                             |
| 4      | With buffer, end lock                    |
| 5      | With buffer, axial piping                |
| 6      | Centralized adjuster                     |
| 7      | Centralized adjuster (Symmetric)         |
| 8      | Buffer, Centralized adjuster             |
| 9      | Buffer, Centralized adjuster (Symmetric) |

**7 Number of auto switches**

| Symbol | Number |
|--------|--------|
| Nil    | 2      |
| S      | 1      |
| n      | n      |

**8 Made to order**  
For details, refer to the next page.

**6 Auto switch**

| Symbol | Option              |
|--------|---------------------|
| Nil    | Without auto switch |

\* For applicable auto switches, refer to the next page.

### 4 Adjuster options/Functional option combinations

| Symbol | Adjuster type                 |                           | Adjuster mounting position*1*6 |   | Functional option combination |                       |                           |                  |               |              |                       |                              |                      |                                  |                              |   |
|--------|-------------------------------|---------------------------|--------------------------------|---|-------------------------------|-----------------------|---------------------------|------------------|---------------|--------------|-----------------------|------------------------------|----------------------|----------------------------------|------------------------------|---|
|        |                               |                           |                                |   | Extension stroke end          | Retraction stroke end | Nil                       | 1                | 2             | 3            | 4                     | 5                            | 6                    | 7                                | 8                            | 9   |
|        |                               |                           |                                |   |                               |                       | Without functional option | *2*3 With buffer | With end lock | Axial piping | With buffer, end lock | *2 With buffer, axial piping | Centralized adjuster | Centralized adjuster (Symmetric) | Buffer, Centralized adjuster | *2 Buffer, Centralized adjuster (Symmetric) |
| Z      | Without adjuster              |                           |                                |   | ○                             | ○                     | ○                         | ○                | ○             | ○            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZA     | Metal stopper with bumper     |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZB     | Metal stopper with bumper     |                           | ●                              | ● | ○                             | ×                     | ○                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZC     | Metal stopper with bumper     |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZD     | Rubber stopper                |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZE     | Rubber stopper                |                           | ●                              | ● | ○                             | ○                     | ○                         | ○                | ○             | ○            | ×                     | ×                            | ×                    | ×                                | ×                            | ×   |
| ZF     | Rubber stopper                |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZG     | Shock absorber/RJ             |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZH     | Shock absorber/RJ             |                           | ●                              | ● | ○                             | ×                     | ○                         | ○                | ×             | ×            | ×                     | ×                            | ×                    | ×                                | ×                            | ×   |
| ZI     | Shock absorber/RJ             |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZJ     | Shock absorber/RJ             |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZK     | Metal stopper                 |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZL     | Metal stopper                 |                           | ●                              | ● | ○                             | ○                     | ○                         | ○                | ○             | ○            | ×                     | ×                            | ×                    | ×                                | ×                            | ×   |
| ZM     | Metal stopper                 |                           | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ○                                | ○                            | ○   |
| ZN     | Shorter overall length type*4 |                           |                                |   | ○                             | ○                     | ○                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZP     | Shorter overall length type*4 |                           |                                |   | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZQ     | Shorter overall length type*4 |                           |                                |   | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZR     | Shorter overall length type*4 |                           |                                |   | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZS     | Shorter overall length type*4 |                           |                                |   | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZT     | Shorter overall length type*4 |                           |                                |   | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZBF    | Metal stopper with bumper     | Without adjuster          | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZBJ    |                               | Without adjuster          | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZBM    | Rubber stopper                | Rubber stopper            | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZEC    |                               | Rubber stopper            | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZEJ    | Shock absorber/RJ             | Shock absorber/RJ         | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZEM    |                               | Shock absorber/RJ         | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZHC    | Metal stopper with bumper     | Metal stopper             | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZHF    |                               | Metal stopper with bumper | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZHM    | Rubber stopper                | Rubber stopper            | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZLC    |                               | Rubber stopper            | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZLF    | Shock absorber/RJ             | Shock absorber/RJ         | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |
| ZLJ    |                               | Shock absorber/RJ         | ●                              | ● | ○                             | ×                     | ×                         | ○                | ×             | ×            | ○                     | ○                            | ○                    | ×                                | ×                            | ×   |

\*1 ●: Shipped together with the product, but not assembled  
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

\*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.

\*3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.

\*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.

\*5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.

\*6 For details on the adjuster mounting position, refer to the next page.



### Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

| Type                    | Special function                          | Electrical entry | Indicator light | Wiring (Output)        | Load voltage |           |                | Auto switch model |            | Lead wire length [m] |               |             |            | Pre-wired connector | Applicable load |            |            |   |            |
|-------------------------|---|------------------|-----------------|------------------------|--------------|-----------|----------------|-------------------|------------|----------------------|---------------|-------------|------------|---------------------|-----------------|------------|------------|---|------------|
|                         |   |                  |                 |                        | DC           | AC        | Perpendicular  | In-line           | 0.5 (Nil)  | 1 (M)                | 3 (L)         | 5 (Z)       | IC circuit |                     | Relay, PLC      |            |            |   |            |
| Solid state auto switch | —   | Grommet          | Yes             | 3-wire (NPN)           | 24 V         | 5 V, 12 V | —              | <b>M9NV</b>       | <b>M9N</b> | ●                    | ●             | ●           | ○          | ○                   | IC circuit      | Relay, PLC |            |   |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |           |                | <b>M9PV</b>       | <b>M9P</b> | ●                    | ●             | ●           | ○          | ○                   |                 |            |            |   |            |
|                         |   |                  |                 | 2-wire                 |              |           |                | <b>M9BV</b>       | <b>M9B</b> | ●                    | ●             | ●           | ○          | ○                   |                 |            |            |   |            |
|                         | Diagnostic indication (2-color indicator) |                  |                 | 3-wire (NPN)           | 5 V, 12 V    | —         | <b>M9NWV</b>   | <b>M9NW</b>       | ●          | ●                    | ●             | ○           | ○          | ○                   | ○               |            | IC circuit |   |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |           | <b>M9PWV</b>   | <b>M9PW</b>       | ●          | ●                    | ●             | ○           | ○          | ○                   |                 |            |            |   |            |
|                         |   |                  |                 | 2-wire                 |              |           | <b>M9B WV</b>  | <b>M9B W</b>      | ●          | ●                    | ●             | ○           | ○          | ○                   |                 |            |            |   |            |
|                         | Water resistant (2-color indicator)       |                  |                 | 3-wire (NPN)           | 5 V, 12 V    | —         | <b>M9NAV*1</b> | <b>M9NA*1</b>     | ○          | ○                    | ●             | ○           | ○          | ○                   | ○               |            | IC circuit |   |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |           | <b>M9PAV*1</b> | <b>M9PA*1</b>     | ○          | ○                    | ●             | ○           | ○          | ○                   |                 |            |            |   |            |
|                         |   |                  |                 | 2-wire                 |              |           | <b>M9BAV*1</b> | <b>M9BA*1</b>     | ○          | ○                    | ●             | ○           | ○          | ○                   |                 |            |            |   |            |
| Feed auto switch        | —   | Grommet          | Yes             | 3-wire (Equiv. to NPN) | 24 V         | 5 V       | —              | <b>A96V</b>       | <b>A96</b> | ●                    | —             | ●           | —          | —                   | IC circuit      | —          |            |   |            |
|                         |   |                  |                 | None                   |              |           |                | 2-wire            | 12 V       | 100 V                | <b>A93V*2</b> | <b>A93</b>  | ●          | ●                   | ●               | ●          | —          | — | Relay, PLC |
|                         |   |                  |                 |                        |              |           |                |                   |            |                      | 100 V or less | <b>A90V</b> | <b>A90</b> | ●                   | —               | ●          | —          | — | —          |

\*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

\*2 1 m lead wire is only applicable to the D-A93.

\* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW  
 1 m ..... M (Example) M9NWM  
 3 m ..... L (Example) M9NWL  
 5 m ..... Z (Example) M9NWZ

\* Solid state auto switches marked with "○" are produced upon receipt of order.

\* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

\* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.

\* Auto switches are shipped together, but not assembled.



### Made to Order

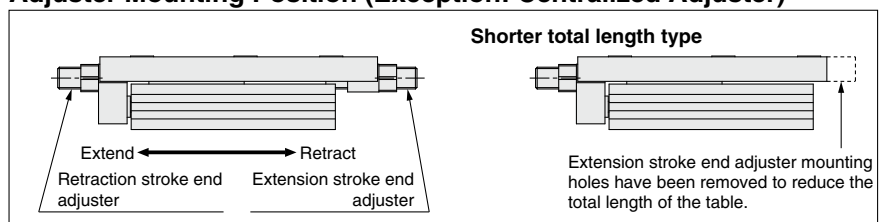
(For details, refer to pages 127 to 156.)

| Symbol | Specifications   |
|--------|--|
| -X7    | PTFE grease  |
| -X9    | Grease for food processing equipment                         |
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         |
| -X28   | Long adjustment nut and bolt                                 |
| -X33   | Without built-in auto switch magnet                          |
| -X39   | Fluororubber seal  |
| -X42   | Anti-corrosive guide unit                                    |
| -X45   | EPDM seal  |
| -X580  | Low-speed specification (15 to 50 mm/s)                      |
| -X2128 | Heat-resistant specification (-10 to 100°C)                  |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

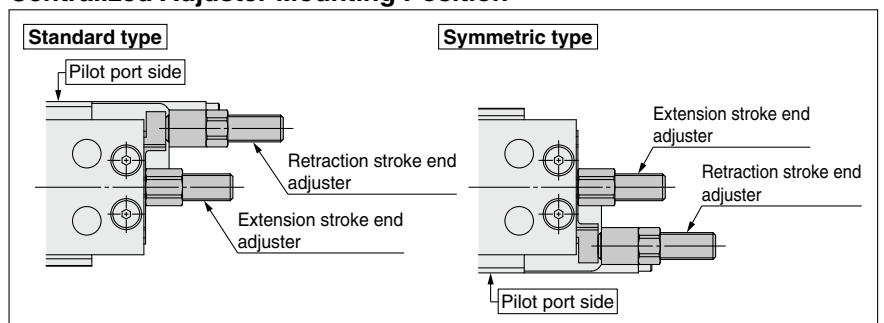
### Moisture Control Tube IDK Series

When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

### Adjuster Mounting Position (Exception: Centralized Adjuster)



### Centralized Adjuster Mounting Position



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection



# MXQ□C Series

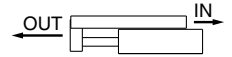
## Specifications

| Bore size [mm]                                     | 8  | 12 |
|--|--|----|
| Piping port size                                   | M5 x 0.8   |    |
| Fluid  | Air  |    |
| Action   | Double acting  |    |
| Operating pressure                                 | 0.15 to 0.7 MPa* <sup>1</sup> (End lock: 0.35 to 0.7 MPa)  |    |
| Proof pressure                                     | 1.05 MPa   |    |
| Ambient and fluid temperatures                     | -10 to 60°C  |    |
| Operating speed range<br>(Average operating speed) | 50 to 500 mm/s<br>(Metal stopper with bumper: 50 to 300 mm/s)<br>(Metal stopper: 50 to 200 mm/s)                         |    |
| Cushion<br>(Without stroke adjuster)               | Internal rubber bumper   |    |
| Cushion<br>(With stroke adjuster)                  | Metal stopper with bumper, Rubber stopper,<br>Shock absorber, Metal stopper  |    |
| Lubrication  | Non-lube   |    |
| Auto switch  | Solid state auto switch, Reed auto switch (2-wire, 3-wire)<br>2-color indicator solid state auto switch (2-wire, 3-wire) |    |
| Stroke length tolerance                            | +2 to 0 mm   |    |

\*1 Refer to page 70 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part

## Theoretical Output



The dual rod ensures an output twice that of current cylinders. [N]

| Bore size [mm] | Rod size [mm] | Operating direction | Piston area [mm <sup>2</sup> ] | Operating pressure [MPa] |     |     |     |     |     |
|----------------|---------------|---------------------|--------------------------------|--------------------------|-----|-----|-----|-----|-----|
|                |               |                     |                                | 0.2                      | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |
| 8              | 4             | OUT                 | 101                            | 20                       | 30  | 40  | 51  | 61  | 71  |
|                |               | IN                  | 75                             | 15                       | 23  | 30  | 38  | 45  | 53  |
| 12             | 6             | OUT                 | 226                            | 45                       | 68  | 90  | 113 | 136 | 158 |
|                |               | IN                  | 170                            | 34                       | 51  | 68  | 85  | 102 | 119 |

\* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 70.

## Weight

| Model  | Standard stroke [mm] |     |     |     |     |     |     |     |     | Reduction of the shorter total length type | Additional weight of adjuster option |                       | Extra for option |          |              |
|--------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|--------------------------------------|-----------------------|------------------|----------|--------------|
|        | 10                   | 20  | 30  | 40  | 50  | 75  | 100 | 125 | 150 |  | Extension stroke end                 | Retraction stroke end | Buffer           | End lock | Axial piping |
| MXQ8C  | 140                  | 150 | 170 | 200 | 260 | 280 | —   | —   | —   | -6   | 10                                   | 8                     | 30               | 60       | No addition  |
| MXQ12C | 280                  | 290 | 320 | 370 | 400 | 550 | 620 | —   | —   | -12  | 20                                   | 16                    | 70               | 60       |              |

## Weight of Centralized Adjuster

| Model  | Standard stroke [mm] |     |     |     |     |     |     | Reduction only when the product comes with a retraction stroke end adjuster |
|--------|----------------------|-----|-----|-----|-----|-----|-----|---|
|        | 10                   | 20  | 30  | 40  | 50  | 75  | 100 |   |
| MXQ8C  | 185                  | 195 | 215 | 245 | 305 | 340 | —   | -10   |
| MXQ12C | 365                  | 385 | 415 | 465 | 495 | 645 | 715 | -20   |

## Weight of Moving Parts

| Model  | Standard stroke [mm] |     |     |     |     |     |     |     |     | Reduction of the shorter total length type | Additional weight of adjuster option |                       | Extra for option |          |              |
|--------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|--|--------------------------------------|-----------------------|------------------|----------|--------------|
|        | 10                   | 20  | 30  | 40  | 50  | 75  | 100 | 125 | 150 |  | Extension stroke end                 | Retraction stroke end | Buffer           | End lock | Axial piping |
| MXQ8C  | 68                   | 76  | 85  | 97  | 116 | 138 | —   | —   | —   | -6   | 10                                   | 8                     | 30               | 10       | No addition  |
| MXQ12C | 143                  | 154 | 168 | 192 | 206 | 263 | 300 | —   | —   | -12  | 20                                   | 16                    | 70               | 20       |              |



## Maximum Load Weight

| Model         | [kg]                                       |                 |                           |                   |   |               |
|---------------|--|-----------------|---------------------------|-------------------|---|---------------|
|               | Without adjuster<br>Internal rubber bumper | Adjuster option |                           |                   |   |               |
|               |  | Rubber stopper  | Metal stopper with bumper | Shock absorber/RJ |   | Metal stopper |
| Horizontal    | Vertical                                   |                 |                           |                   |   |               |
| <b>MXQ8C</b>  | 1  | 1               | 1                         | 1                 |   | 1             |
| <b>MXQ12C</b> | 2  | 2               | 2                         | 1.5               | 1 | 2             |

## Allowable Kinetic Energy

| Model         | [J]  |                           |                |                   |               |
|---------------|--|---------------------------|----------------|-------------------|---------------|
|               | Without adjuster<br>Internal rubber bumper | Adjuster option           |                |                   |               |
|               |  | Metal stopper with bumper | Rubber stopper | Shock absorber/RJ | Metal stopper |
| <b>MXQ8C</b>  | 0.04                                       | 0.018                     | 0.06           | 0.2               | 0.009         |
| <b>MXQ12C</b> | 0.11                                       | 0.04                      | 0.12           | 0.33              | 0.02          |

\* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

## Optional Specifications

### With End Lock

| Model                          | MXQ8C       | MXQ12C |
|--------------------------------|-------------|--------|
| Operating pressure range [MPa] | 0.35 to 0.7 |        |
| Holding force [N]              | 12          | 23     |

### With Buffer Mechanism

| Model                        | MXQ8C  | MXQ12C |
|------------------------------|--|--------|
| Operating speed range [mm/s] | 50 to 500<br>(Horizontal mounting 50 to 300) |        |
| Buffer stroke [mm]           | 5  | 10     |
| Buffer stroke load [N]       | Stroke at 0 [mm]<br>Maximum stroke           | 9      |
|                              | 8  | 15     |

### Auto Switches Applicable to Buffer

| Type                    | Model  | Specifications                  | Electrical entry direction |
|-------------------------|--------|---------------------------------|----------------------------|
| Solid state auto switch | D-M9BV | With light, 2-wire              | Vertical                   |
|                         | D-M9NV | With light, 3-wire, Output: NPN |                            |
|                         | D-M9PV | With light, 3-wire, Output: PNP |                            |

## Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

### Metal Stopper with Bumper

| Model  | MXQ8C     | MXQ12C |
|--|-----------|--------|
| Max. absorbed energy [J]                                       | 0.018     | 0.04   |
| Stroke absorption [mm]   | 2         | 2.8    |
| Min. operating pressure of metal stopper with bumper*1*2 [MPa] | 0.3       | 0.3    |
| <small>Reference</small> Full compression force of bumper [N]  | 20        | 42     |
| Mounting screw size [mm]                                       | M6 x 0.75 | M8 x 1 |

\*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part  
When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

\*2 Not available for ø6

### Rubber Stopper

| Model                    | MXQ8C     | MXQ12C |
|--------------------------|-----------|--------|
| Max. absorbed energy [J] | 0.06      | 0.12   |
| Mounting screw size [mm] | M6 x 0.75 | M8 x 1 |

### Shock Absorber/RJ

| Model                                | MXQ8C     | MXQ12C    |
|--------------------------------------|-----------|-----------|
| Max. absorbed energy [J]             | 0.35      | 0.5       |
| Stroke absorption [mm]               | 3         | 5         |
| Collision speed [mm/s]               | 50 to 500 | 50 to 500 |
| Max. operating frequency [cycle/min] | 80        | 80        |
| Max. allowable thrust [N]            | 150       | 245       |
| Spring force (Extended) [N]          | 1.3       | 2.8       |
| Spring force (Compressed) [N]        | 3.9       | 4.9       |
| Mounting screw size [mm]             | M6 x 0.75 | M8 x 1    |

### Metal Stopper

| Model                    | MXQ8C     | MXQ12C |
|--------------------------|-----------|--------|
| Max. absorbed energy [J] | 0.009     | 0.02   |
| Mounting screw size [mm] | M6 x 0.75 | M8 x 1 |

 Double-ported type  
MXQ□A

 Low thrust with high rigidity type  
MXQ□B

 Single side-ported type  
MXQ□C

 Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

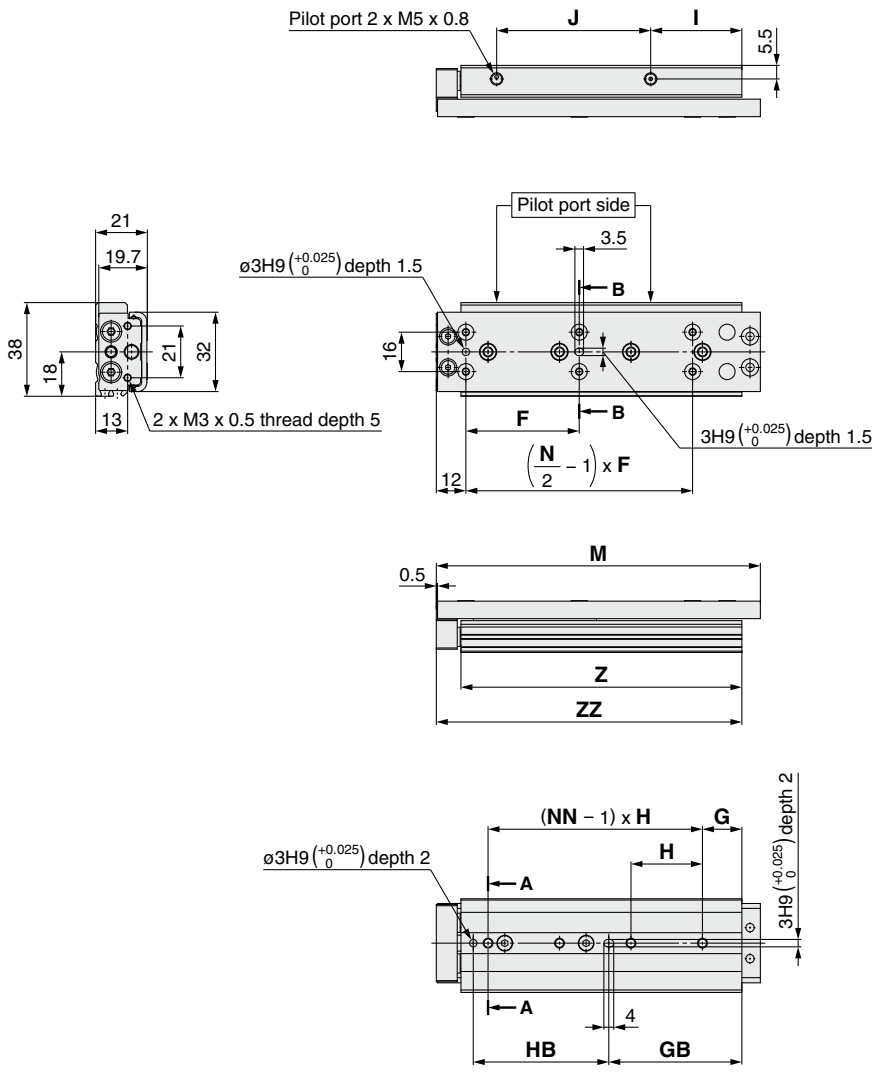
Made to Order

Model Selection

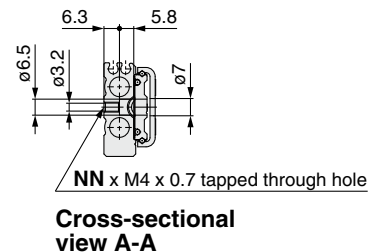
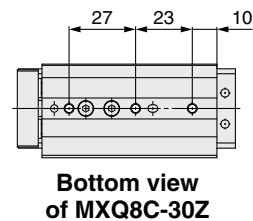
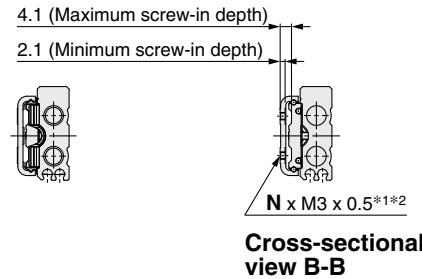
# MXQ□C Series

## Dimensions: MXQ **8C** [Standard]

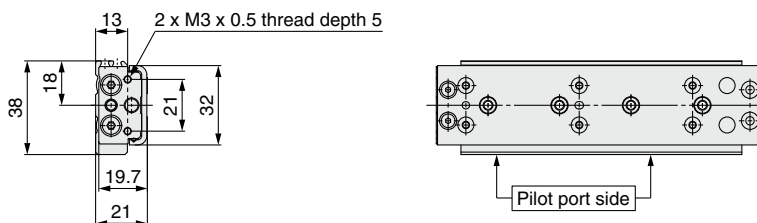
### MXQ **8C**-□Z Standard type



- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### MXQ **8CL**-□Z Symmetric type



\* Dimensions other than those listed above are the same as those for the standard type.

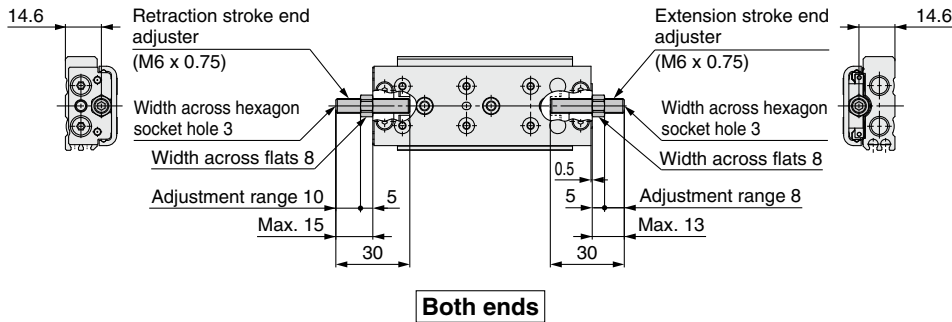
#### Dimensions

| Model     | F  | G  | GB | H  | HB | I    | J    | M     | N | NN | Z   | ZZ  |
|-----------|----|----|----|----|----|------|------|-------|---|----|-----|-----|
| MXQ8C-10Z | 25 | 15 | 9  | 25 | 37 | 10   | 26.5 | 68.5  | 4 | 2  | 51  | 61  |
| MXQ8C-20Z | 25 | 22 | 16 | 28 | 40 | 14   | 32.5 | 78.5  | 4 | 2  | 61  | 71  |
| MXQ8C-30Z | 26 | —  | 26 | —  | 40 | 14.5 | 42   | 88.5  | 6 | 3  | 71  | 81  |
| MXQ8C-40Z | 32 | 14 | 27 | 31 | 55 | 20   | 52.5 | 104.5 | 6 | 3  | 87  | 97  |
| MXQ8C-50Z | 46 | 16 | 54 | 29 | 55 | 37   | 62.5 | 131.5 | 6 | 4  | 114 | 124 |
| MXQ8C-75Z | 50 | 15 | 56 | 30 | 55 | 10   | 91.5 | 156.5 | 6 | 4  | 116 | 126 |

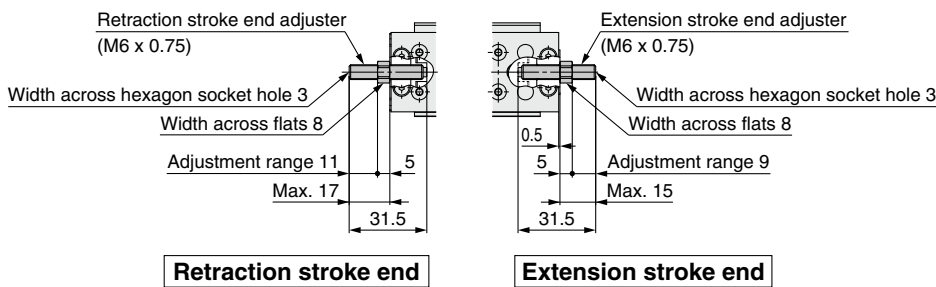
# Dimensions: MXQ **8C** [Adjuster Option]

## MXQ **8C**-□ With adjuster option (ø8)

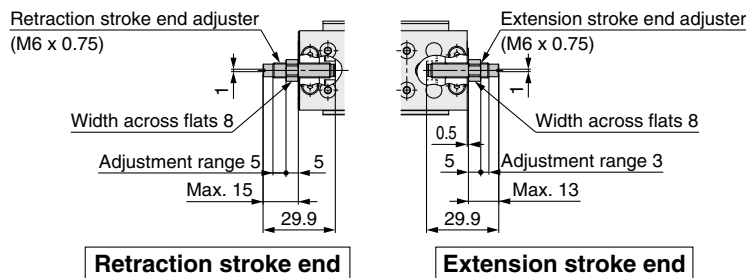
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)  
 Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

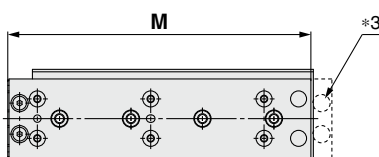


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **8C**-□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ8C-10ZN      | 60  |
| MXQ8C-20ZN      | 70  |
| MXQ8C-30ZN      | 80  |
| MXQ8C-40ZN      | 96  |
| MXQ8C-50ZN      | 123 |
| MXQ8C-75ZN      | 148 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

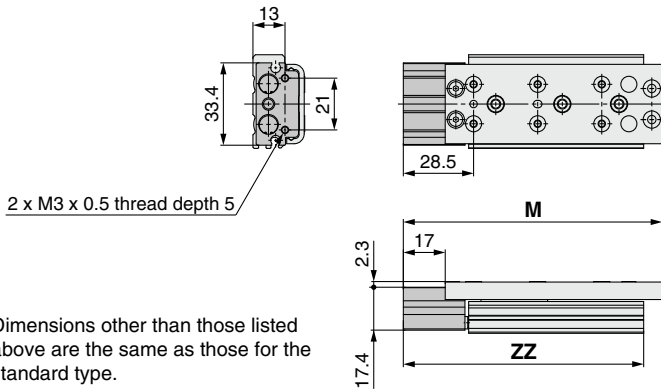
Made to Order

Model Selection

# MXQ□C Series

## Dimensions: MXQ **8C** [Functional Option]

### MXQ **8C**-□□1 With buffer (ø8)

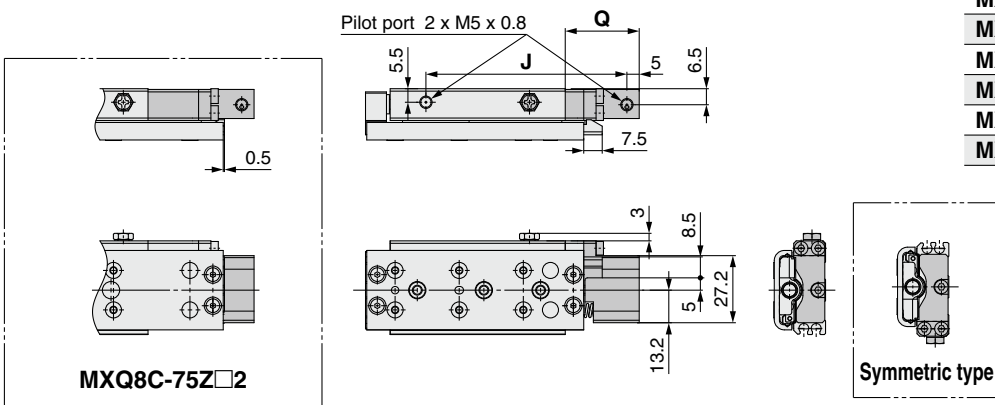


\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions [mm]

| Model       | Standard type | Shorter total length type | ZZ    |
|-------------|---------------|---------------------------|-------|
|             | M             | M                         |       |
| MXQ8C-10Z□1 | 85            | 76.5                      | 77.5  |
| MXQ8C-20Z□1 | 95            | 86.5                      | 87.5  |
| MXQ8C-30Z□1 | 105           | 96.5                      | 97.5  |
| MXQ8C-40Z□1 | 121           | 112.5                     | 113.5 |
| MXQ8C-50Z□1 | 148           | 139.5                     | 140.5 |
| MXQ8C-75Z□1 | 173           | 164.5                     | 142.5 |

### MXQ **8C**-□□2 With end lock (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions [mm]

| Model       | J           | Q    |
|-------------|-------------|------|
|             | MXQ8C-10Z□2 | 61.5 |
| MXQ8C-20Z□2 | 71.5        |      |
| MXQ8C-30Z□2 | 81.5        |      |
| MXQ8C-40Z□2 | 97.5        |      |
| MXQ8C-50Z□2 | 124.5       |      |
| MXQ8C-75Z□2 | 139.5       | 43   |

### MXQ **8C**-□□2 With end lock, extension stroke end adjuster (ø8)

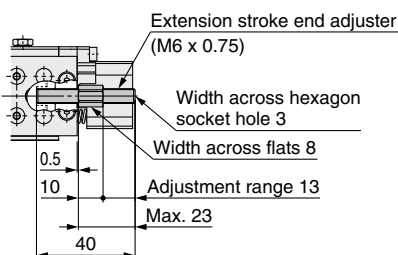
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT8-X28      | MXQA-A887-X11                     |
| Rubber stopper: ZE            | MXQA-AT8-X28      | MXQA-A827-X11                     |
| Shock absorber/RJ: ZH         | MXQA-JT8-X28      | RJ0603N                           |
| Metal stopper: ZL             | MXQA-DT8-X28      | MXQA-A838-X11                     |

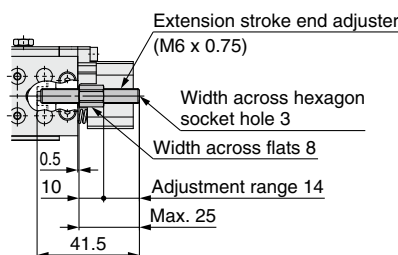
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

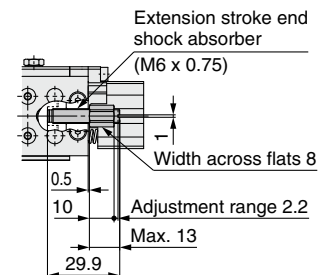
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



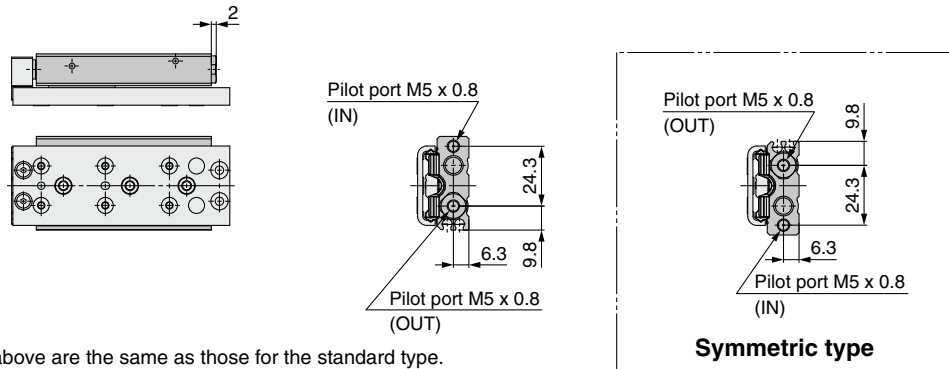
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

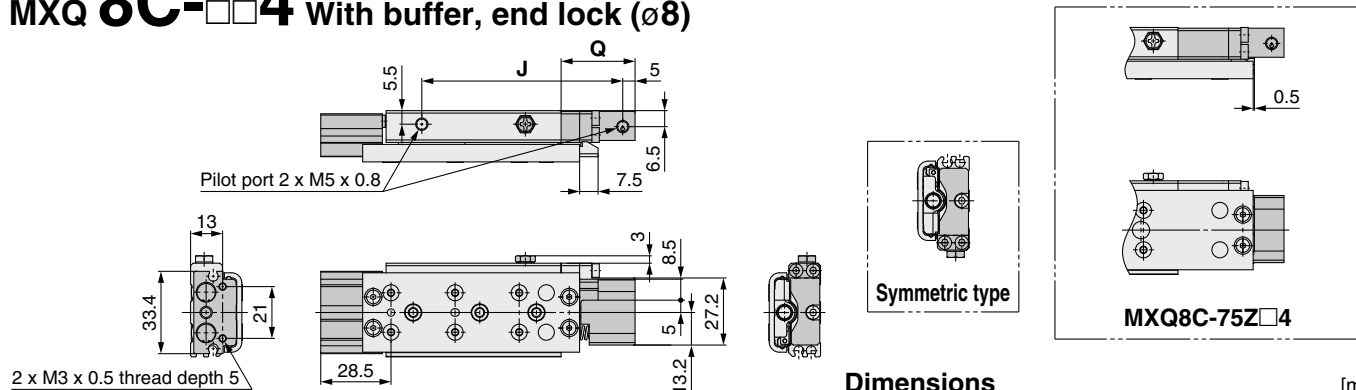
Dimensions: MXQ **8C** [Functional Option]

MXQ **8C-□□3** Axial piping (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C-□□4** With buffer, end lock (ø8)

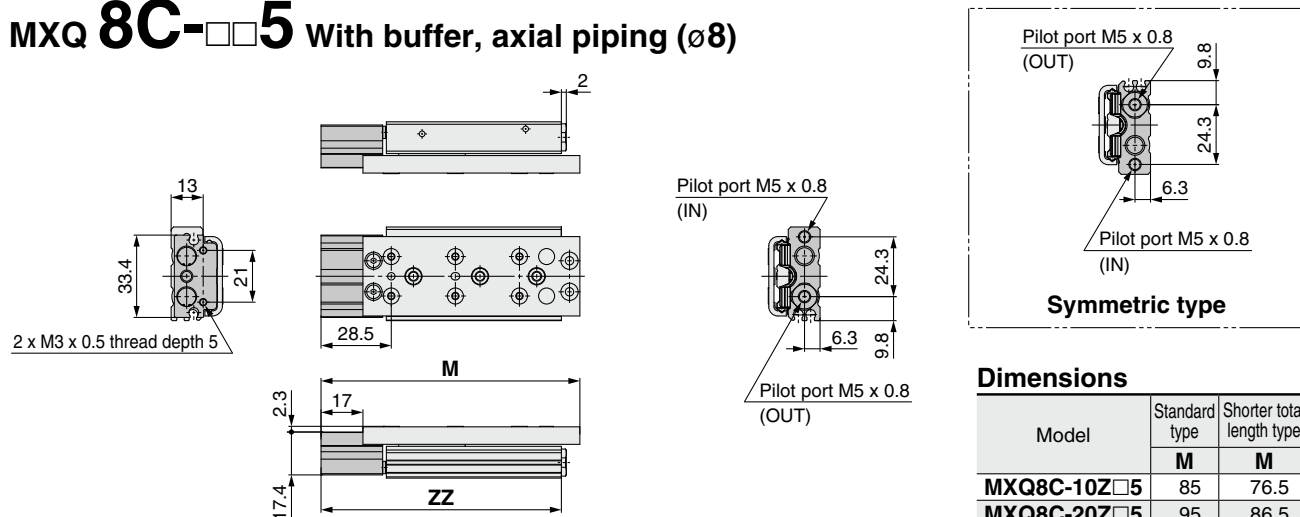


Dimensions

| Model       | J     | Q  | Standard type |       | ZZ    |
|-------------|-------|----|---------------|-------|-------|
|             |       |    | M             | M     |       |
| MXQ8C-10Z□4 | 61.5  | 30 | 85            | 76.5  | 77.5  |
| MXQ8C-20Z□4 | 71.5  |    | 95            | 86.5  | 87.5  |
| MXQ8C-30Z□4 | 81.5  |    | 105           | 96.5  | 97.5  |
| MXQ8C-40Z□4 | 97.5  |    | 121           | 112.5 | 113.5 |
| MXQ8C-50Z□4 | 124.5 |    | 148           | 139.5 | 140.5 |
| MXQ8C-75Z□4 | 139.5 | 43 | 173           | 164.5 | 142.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

MXQ **8C-□□5** With buffer, axial piping (ø8)



Dimensions

| Model       | Standard type |       | ZZ    |
|-------------|---------------|-------|-------|
|             | M             | M     |       |
| MXQ8C-10Z□5 | 85            | 76.5  | 77.5  |
| MXQ8C-20Z□5 | 95            | 86.5  | 87.5  |
| MXQ8C-30Z□5 | 105           | 96.5  | 97.5  |
| MXQ8C-40Z□5 | 121           | 112.5 | 113.5 |
| MXQ8C-50Z□5 | 148           | 139.5 | 140.5 |
| MXQ8C-75Z□5 | 173           | 164.5 | 142.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ□C Series

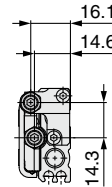
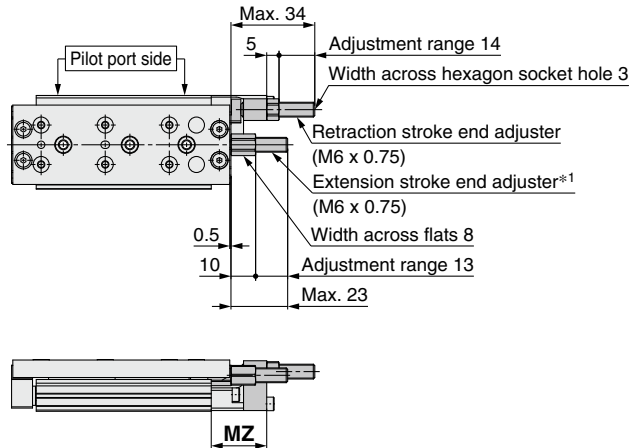
## Dimensions: MXQ **8C** [Functional Option]

### MXQ **8C**-□□**6** Centralized adjuster (∅8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

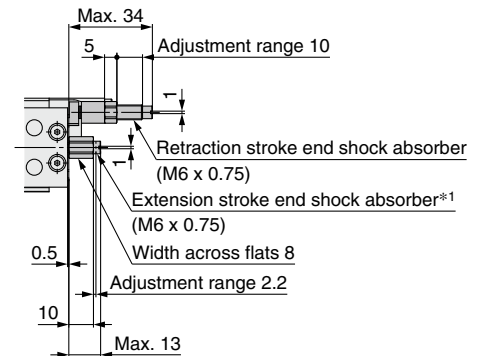
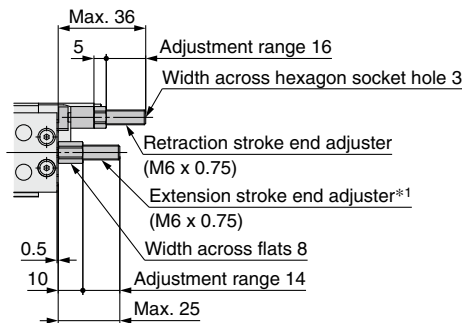
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8C-10Z□6     | 22.5 |
| MXQ8C-20Z□6     |      |
| MXQ8C-30Z□6     |      |
| MXQ8C-40Z□6     |      |
| MXQ8C-50Z□6     |      |
| MXQ8C-75Z□6     | 46.5 |

Rubber stopper **ZD**: Both ends,  
**ZF**: Retraction stroke end

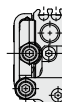
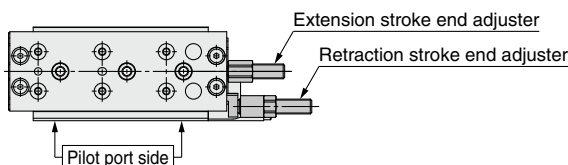
Shock absorber/RJ **ZG**: Both ends,  
**ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **8CL**-□□**7** Centralized adjuster / Symmetric type (∅8)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

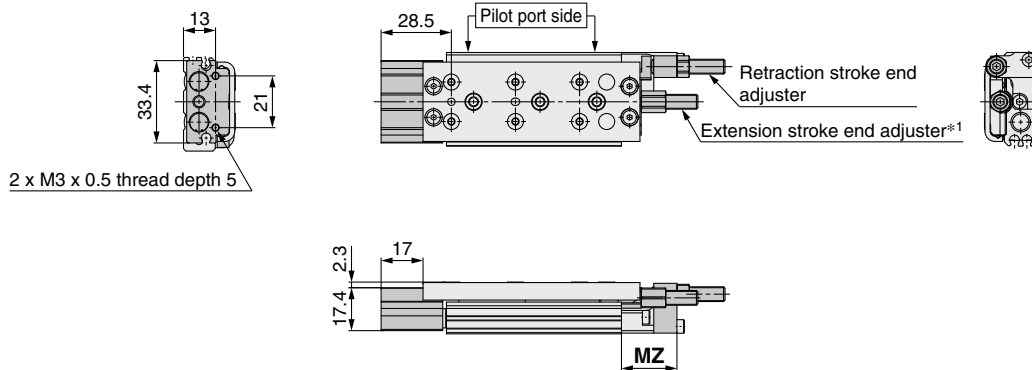


# Dimensions: MXQ **8C** [Functional Option]

## MXQ **8C**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

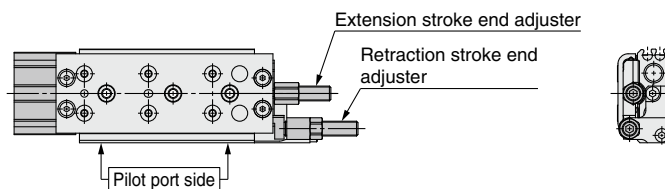


\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8C-10Z□8     | 22.5 |
| MXQ8C-20Z□8     |      |
| MXQ8C-30Z□8     |      |
| MXQ8C-40Z□8     |      |
| MXQ8C-50Z□8     |      |
| MXQ8C-75Z□8     | 46.5 |

## MXQ **8CL**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

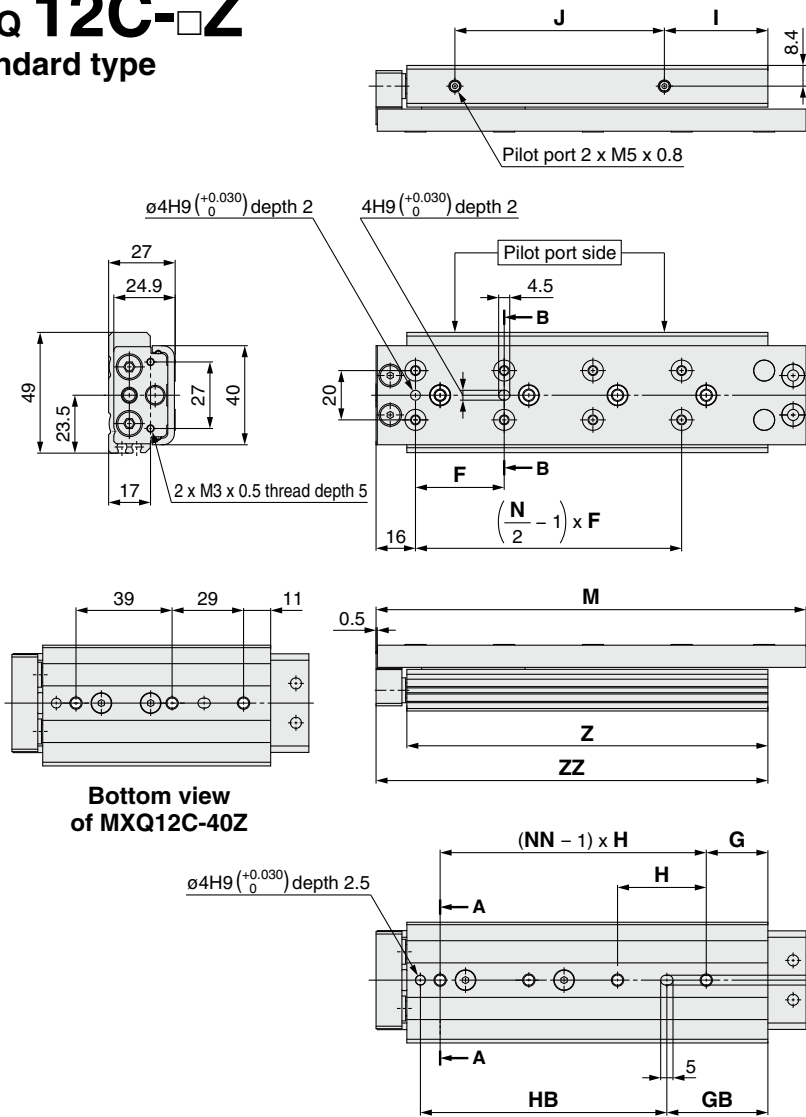
Model Selection



# MXQ□C Series

## Dimensions: MXQ **12C** [Standard]

### MXQ 12C-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

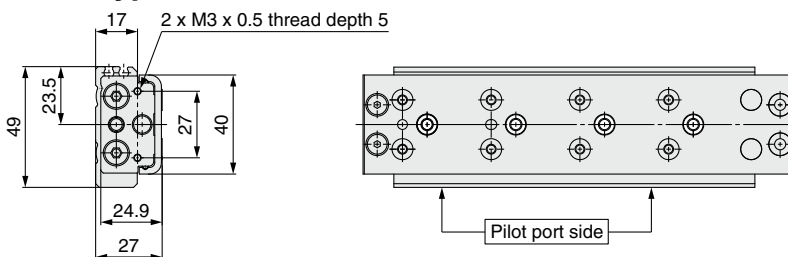
5.7 (Maximum screw-in depth)

2.7 (Minimum screw-in depth)

**Cross-sectional view B-B**

**Cross-sectional view A-A**

### MXQ 12CL-□Z Symmetric type



\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions

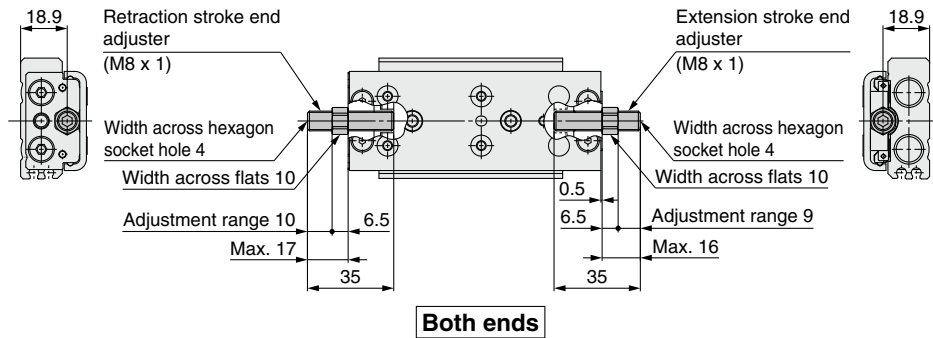
| Model       | F  | G  | GB | H  | HB  | I  | J   | M     | N  | NN | Z     | ZZ  |
|-------------|----|----|----|----|-----|----|-----|-------|----|----|-------|-----|
| MXQ12C-10Z  | 28 | 17 | 11 | 32 | 46  | 11 | 32  | 82.5  | 4  | 2  | 62.5  | 75  |
| MXQ12C-20Z  | 28 | 19 | 11 | 32 | 48  | 13 | 32  | 92.5  | 4  | 2  | 64.5  | 77  |
| MXQ12C-30Z  | 38 | 21 | 11 | 40 | 58  | 15 | 40  | 102.5 | 4  | 2  | 74.5  | 87  |
| MXQ12C-40Z  | 34 | —  | 27 | —  | 60  | 23 | 50  | 120.5 | 6  | 3  | 92.5  | 105 |
| MXQ12C-50Z  | 34 | 11 | 37 | 39 | 60  | 23 | 60  | 130.5 | 6  | 3  | 102.5 | 115 |
| MXQ12C-75Z  | 36 | 25 | 41 | 36 | 100 | 42 | 85  | 174.5 | 8  | 4  | 146.5 | 159 |
| MXQ12C-100Z | 36 | 14 | 66 | 36 | 100 | 42 | 110 | 199.5 | 10 | 5  | 171.5 | 184 |

# Dimensions: MXQ **12C** [Adjuster Option]

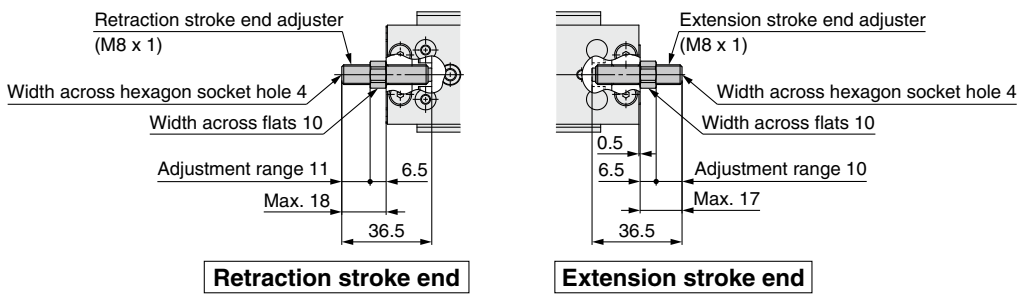
## MXQ **12C**-□ With adjuster option (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

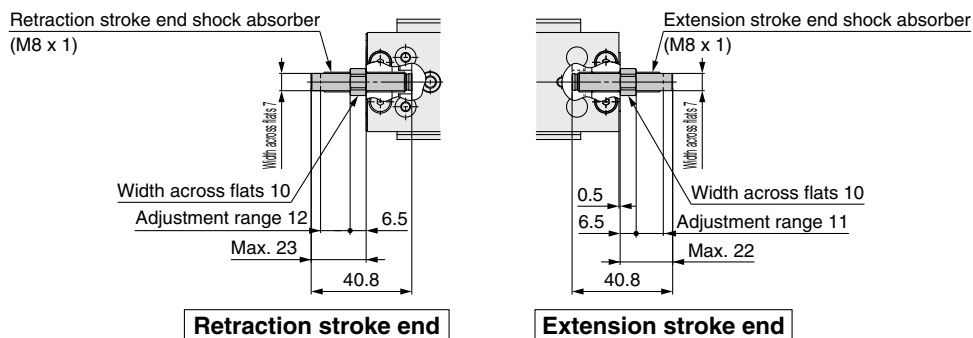
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

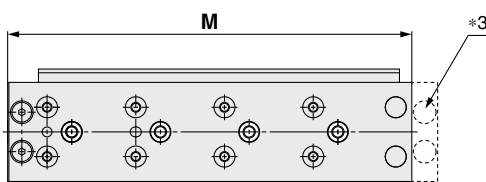


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **12C**-□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ12C-10ZN     | 72  |
| MXQ12C-20ZN     | 82  |
| MXQ12C-30ZN     | 92  |
| MXQ12C-40ZN     | 110 |
| MXQ12C-50ZN     | 120 |
| MXQ12C-75ZN     | 164 |
| MXQ12C-100ZN    | 189 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

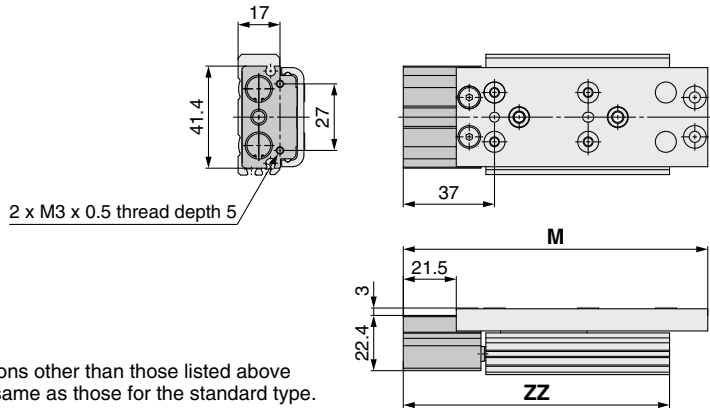
Made to Order

Model Selection

# MXQ□C Series

## Dimensions: MXQ **12C** [Functional Option]

### MXQ **12C-□□1** With buffer (ø12)

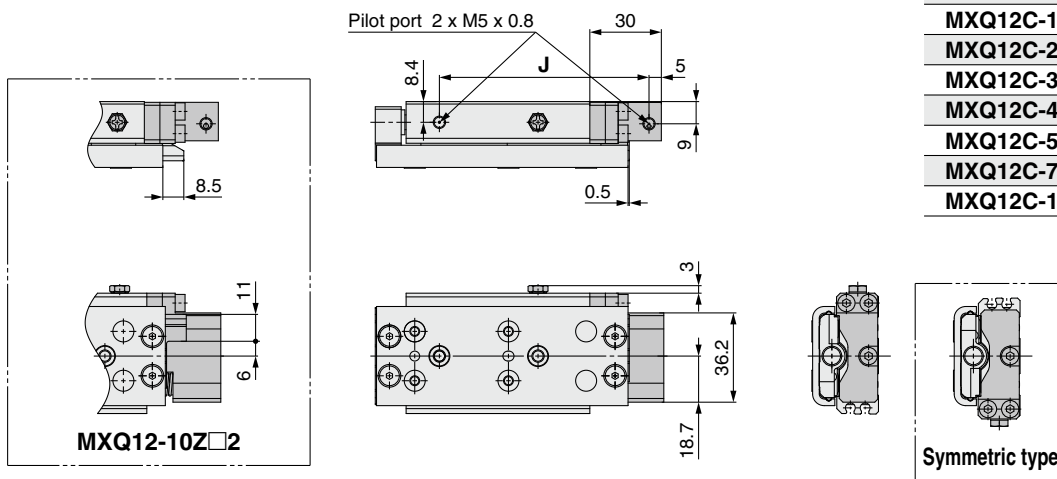


\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions** [mm]

| Model         | Standard type | Shorter total length type | ZZ  |
|---------------|---------------|---------------------------|-----|
|               | M             | M                         |     |
| MXQ12C-10Z□1  | 103.5         | 93                        | 96  |
| MXQ12C-20Z□1  | 113.5         | 103                       | 98  |
| MXQ12C-30Z□1  | 123.5         | 113                       | 108 |
| MXQ12C-40Z□1  | 141.5         | 131                       | 126 |
| MXQ12C-50Z□1  | 151.5         | 141                       | 136 |
| MXQ12C-75Z□1  | 195.5         | 185                       | 180 |
| MXQ12C-100Z□1 | 220.5         | 210                       | 205 |

### MXQ **12C-□□2** With end lock (ø12)



**Dimensions** [mm]

| Model         | J   |
|---------------|-----|
| MXQ12C-10Z□2  | 68  |
| MXQ12C-20Z□2  | 70  |
| MXQ12C-30Z□2  | 80  |
| MXQ12C-40Z□2  | 98  |
| MXQ12C-50Z□2  | 108 |
| MXQ12C-75Z□2  | 152 |
| MXQ12C-100Z□2 | 177 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **12C-□□2** With end lock, extension stroke end adjuster (ø12)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT12-X28     | MXQA-A1287-X11                    |
| Rubber stopper: ZE            | MXQA-AT12-X28     | MXQA-A1227-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT12-X28     | RJ0805U-X2300                     |
| Metal stopper: ZL             | MXQA-DT12-X28     | MXQA-A1238-X11                    |

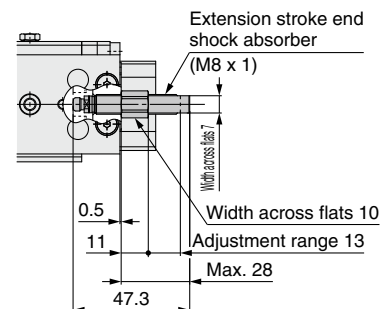
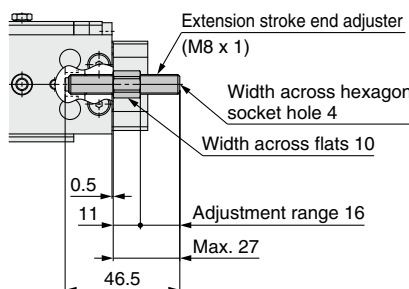
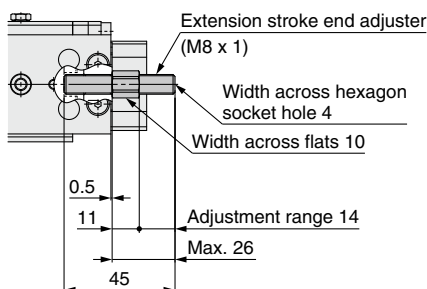
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

#### Metal stopper: **ZL**

#### Rubber stopper: **ZE**

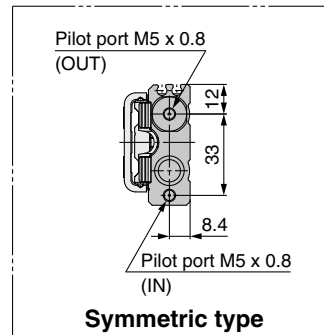
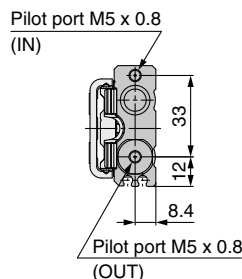
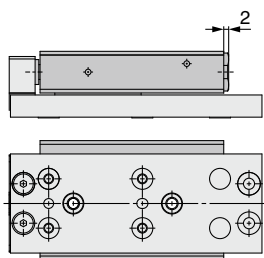
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

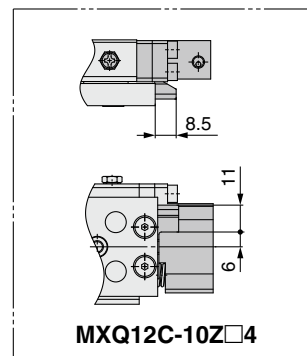
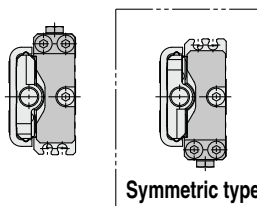
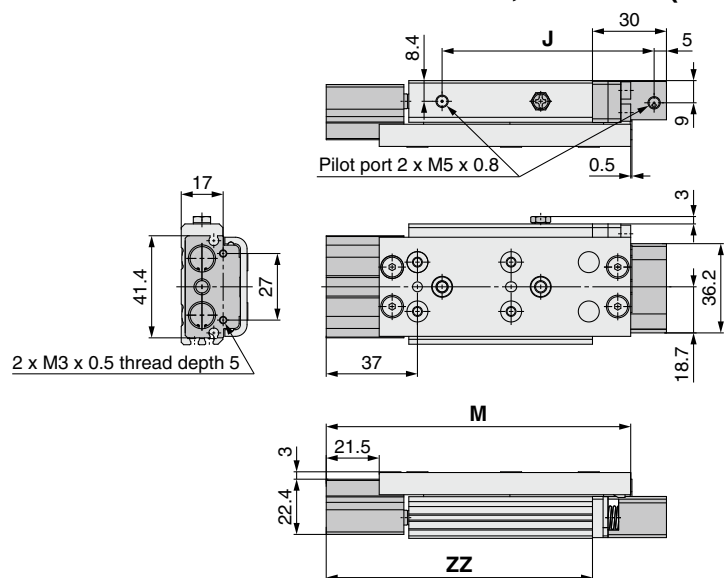
# Dimensions: MXQ **12C** [Functional Option]

## MXQ **12C-□□3** Axial piping (ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **12C-□□4** With buffer, end lock (ø12)

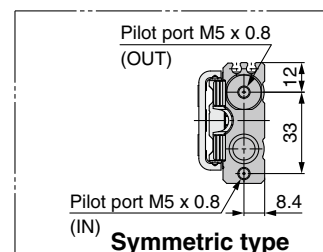
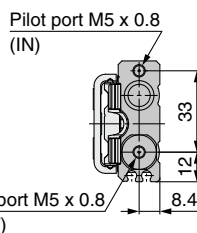
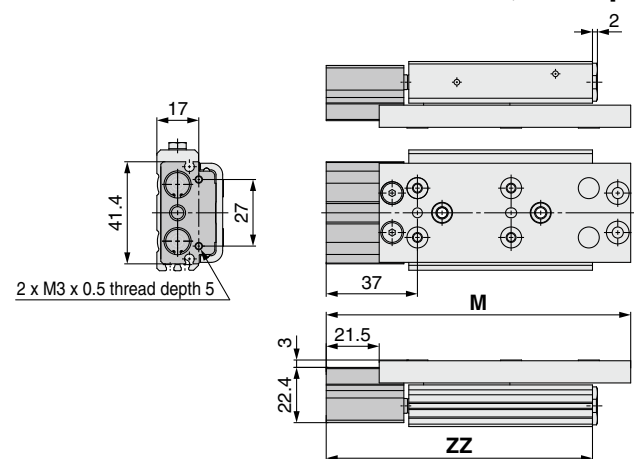


### Dimensions [mm]

| Model         | J   | Standard type | Shorter total length type | ZZ  |
|---------------|-----|---------------|---------------------------|-----|
|               |     | M             | M                         |     |
| MXQ12C-10Z□4  | 68  | 103.5         | 93                        | 96  |
| MXQ12C-20Z□4  | 70  | 113.5         | 103                       | 98  |
| MXQ12C-30Z□4  | 80  | 123.5         | 113                       | 108 |
| MXQ12C-40Z□4  | 98  | 141.5         | 131                       | 126 |
| MXQ12C-50Z□4  | 108 | 151.5         | 141                       | 136 |
| MXQ12C-75Z□4  | 152 | 195.5         | 185                       | 180 |
| MXQ12C-100Z□4 | 177 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **12C-□□5** With buffer, axial piping (ø12)



### Dimensions [mm]

| Model         | Standard type | Shorter total length type | ZZ  |
|---------------|---------------|---------------------------|-----|
|               | M             | M                         |     |
| MXQ12C-10Z□5  | 103.5         | 93                        | 96  |
| MXQ12C-20Z□5  | 113.5         | 103                       | 98  |
| MXQ12C-30Z□5  | 123.5         | 113                       | 108 |
| MXQ12C-40Z□5  | 141.5         | 131                       | 126 |
| MXQ12C-50Z□5  | 151.5         | 141                       | 136 |
| MXQ12C-75Z□5  | 195.5         | 185                       | 180 |
| MXQ12C-100Z□5 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ □ C Series

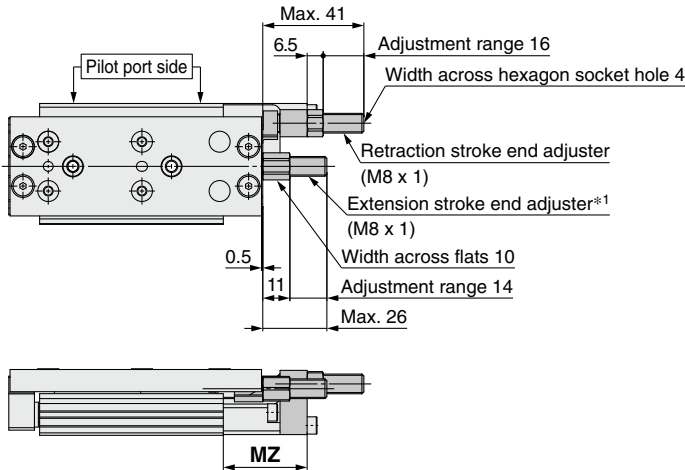
## Dimensions: MXQ **12C** [Functional Option]

### MXQ **12C-□□6** Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

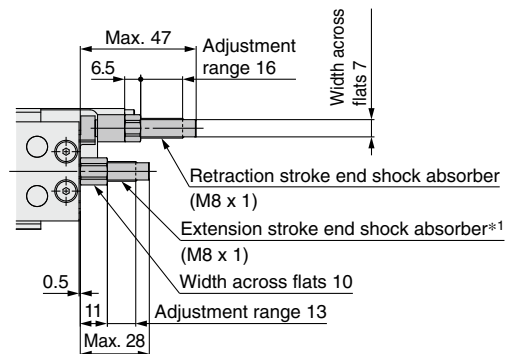
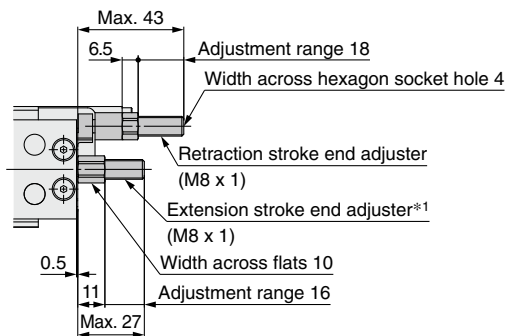
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12C-10Z□6    | 26 |
| MXQ12C-20Z□6    | 34 |
| MXQ12C-30Z□6    |    |
| MXQ12C-40Z□6    |    |
| MXQ12C-50Z□6    |    |
| MXQ12C-75Z□6    |    |
| MXQ12C-100Z□6   |    |

Rubber stopper **ZD**: Both ends,  
**ZF**: Retraction stroke end

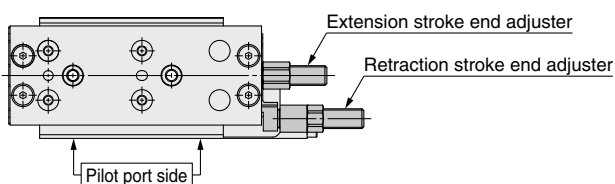
Shock absorber/RJ **ZG**: Both ends,  
**ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **12CL-□□7** Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

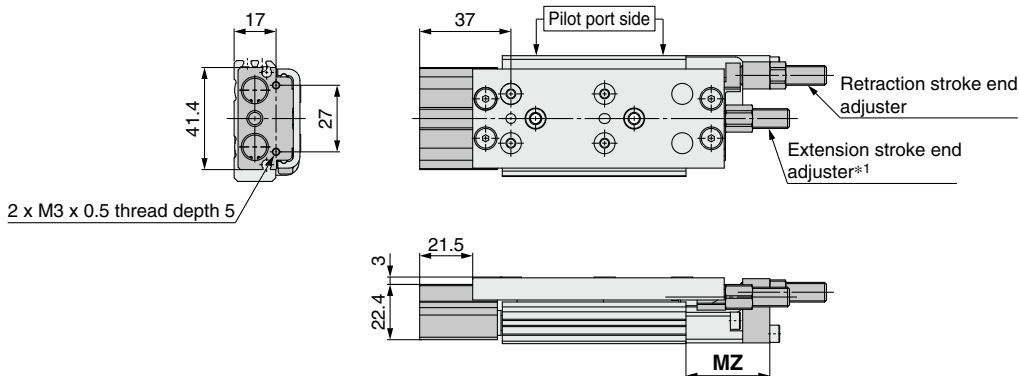


Dimensions: MXQ **12C** [Functional Option]

**MXQ 12C-□□8** Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

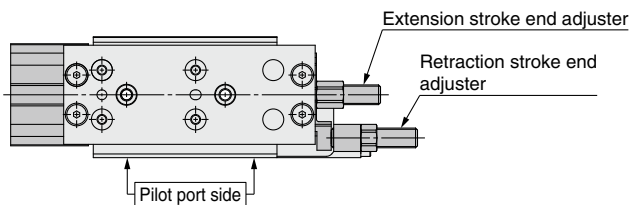


| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12C-10Z□8    | 26 |
| MXQ12C-20Z□8    | 34 |
| MXQ12C-30Z□8    |    |
| MXQ12C-40Z□8    |    |
| MXQ12C-50Z□8    |    |
| MXQ12C-75Z□8    |    |
| MXQ12C-100Z□8   |    |

\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 12CL-□□9** Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

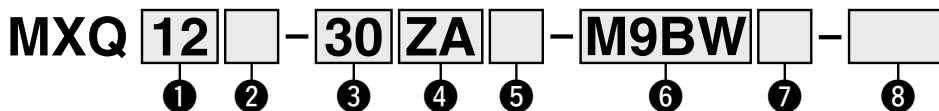
Made to Order

Model Selection

# Air Slide Table Height Interchangeable Type **MXQ Series** ø6, ø8, ø12, ø16, ø20, ø25



## How to Order



| 1 Bore size | 2 Body option |                | 3 Standard stroke [mm]                 |
|-------------|---------------|----------------|--|
|             | Standard type | Symmetric type |  |
|             | Nil           | L              |  |
| 6           |               |                | 10, 20, 30, 40, 50                     |
| 8           |               |                | 10, 20, 30, 40, 50, 75                 |
| 12          |               |                | 10, 20, 30, 40, 50, 75, 100            |
| 16          |               | —*1            | 10, 20, 30, 40, 50, 75, 100, 125       |
| 20          |               | —*1            | 10, 20, 30, 40, 50, 75, 100, 125, 150  |
| 25          |               | —*1            | 10, 20, 30, 40, 50, 75, 100, 125, 150* |

- \*1 Not available, as the standard model has piping ports and auto switch mounting grooves on both sides. Please use the standard type. Only the adjuster part of the centralized adjuster is symmetric.
- \* The operating speed range of the stroke marked with an asterisk (\*) is 50 to 300 mm/s. (Without stroke adjuster)

| 5 Functional options |  |
|----------------------|--|
| Symbol               | Functional option                        |
| Nil                  | Without functional option                |
| 1                    | With buffer                              |
| 2                    | With end lock                            |
| 3                    | Axial piping                             |
| 4                    | With buffer, end lock                    |
| 5                    | With buffer, axial piping                |
| 6                    | Centralized adjuster                     |
| 7                    | Centralized adjuster (Symmetric)         |
| 8                    | Buffer, Centralized adjuster             |
| 9                    | Buffer, Centralized adjuster (Symmetric) |

| 7 Number of auto switches |        |
|---------------------------|--------|
| Symbol                    | Number |
| Nil                       | 2      |
| S                         | 1      |
| n                         | n      |

8 Made to order  
For details, refer to the next page.

| 6 Auto switch |                     |
|---------------|---------------------|
| Symbol        | Option              |
| Nil           | Without auto switch |

\* For applicable auto switches, refer to the next page.

## 4 Adjuster options/Functional option combinations

| Symbol | Adjuster type*9             | Adjuster mounting position*1*8 |                       | Functional option combination |                  |               |                |                         |                               |                      |                                    |                                |  |   |
|--------|-----------------------------|--------------------------------|-----------------------|-------------------------------|------------------|---------------|----------------|-------------------------|-------------------------------|----------------------|------------------------------------|--------------------------------|--|---|
|        |                             | Extension stroke end           | Retraction stroke end | Nil                           | 1                | 2             | 3              | 4                       | 5                             | 6                    | 7                                  | 8                              | 9  |   |
|        |                             |                                |                       | Without functional option     | *2*3 With buffer | With end lock | Axial piping*6 | With buffer, end lock*2 | With buffer, axial piping*2*6 | Centralized adjuster | Centralized adjuster (Symmetric)*7 | Buffer, Centralized adjuster*2 | Buffer, Centralized adjuster (Symmetric)*2*7 |   |
| Z      | Without adjuster            |                                |                       | ○                             | ○                | ○             | ○              | ○                       | ○                             | ○                    | ×                                  | ×                              | ×  | × |
| ZA     | Metal stopper with bumper   | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZB     |                             | ●                              | ●                     | ○                             | ×                | ○             | ○              | ×                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZC     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZD     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZE     | Rubber stopper              | ●                              | ●                     | ○                             | ○                | ○             | ○              | ○                       | ○                             | ○                    | ×                                  | ×                              | ×  | × |
| ZF     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ○                    | ○                                  | ○                              | ○  | ○ |
| ZG     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZH     |                             | ●                              | ●                     | ○                             | ×                | ○             | ○              | ×                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZJ     | Shock absorber/RJ           | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ○                    | ○                                  | ○                              | ○  | ○ |
| ZK     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ○                    | ○                                  | ○                              | ○  | ○ |
| ZL     |                             | ●                              | ●                     | ○                             | ○                | ○             | ○              | ○                       | ○                             | ○                    | ×                                  | ×                              | ×  | × |
| ZM     |                             | ●                              | ●                     | ○                             | ×                | ×             | ○              | ×                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZN     | Shorter total length type*4 | Without adjuster               |                       | ○                             | ○*5              | ×             | ○              | ×                       | ○*5                           | ×                    | ×                                  | ×                              | ×  | × |
| ZP     |                             | Rubber stopper                 | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZQ     |                             | Shock absorber/RJ              | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZR     |                             | Metal stopper with bumper      | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZS     |                             | Metal stopper                  | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZT     |                             | Metal stopper                  | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ×                                  | ×                              | ×  | × |
| ZBF    | Metal stopper with bumper   | Rubber stopper                 | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZBJ    |                             | Shock absorber/RJ              | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZBM    | Rubber stopper              | Metal stopper                  | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZBC    |                             | Metal stopper with bumper      | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZEJ    | Shock absorber/RJ           | Shock absorber/RJ              | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZEM    |                             | Metal stopper                  | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZHC    | Metal stopper with bumper   | Metal stopper with bumper      | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZHF    |                             | Rubber stopper                 | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZHM    | Metal stopper               | Metal stopper                  | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ×  | × |
| ZLC    |                             | Metal stopper with bumper      | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZLF    | Rubber stopper              | Rubber stopper                 | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |
| ZLJ    |                             | Shock absorber/RJ              | ●                     | ●                             | ○                | ×             | ×              | ○                       | ×                             | ×                    | ○                                  | ○                              | ○  | ○ |

- \*1 ●: Shipped together with the product, but not assembled  
Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.
- \*2 For the buffer mechanism, the buffer stroke will be shorter for the stroke that is adjusted by the extension stroke end adjuster.
- \*3 If it is necessary to install a retraction stroke end adjuster with a buffer mechanism, use a buffer and centralized adjuster provided with a retraction stroke end adjuster on the rear end of the body. End lock or axial piping options cannot be mounted to centralized adjuster specification models.
- \*4 Extension stroke end adjuster mounting holes have been removed to reduce the total length of the table.
- \*5 The shorter total length type can be used, but a retraction stroke end adjuster cannot be mounted afterward.
- \*6 For ø16 to ø25, the piping ports on both sides cannot be used.
- \*7 For ø16 to ø25, only the centralized adjuster is symmetric.
- \*8 For details on the adjuster mounting position, refer to the next page.
- \*9 The metal stopper with bumper option is not available for ø6.





Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

### Applicable Auto Switches/Refer to the **Web Catalog** or Best Pneumatics Catalog for further information on auto switches.

| Type                    | Special function                          | Electrical entry | Indicator light | Wiring (Output)        | Load voltage |           | Auto switch model |                 | Lead wire length [m] |                |            |       | Pre-wired connector | Applicable load |            |            |
|-------------------------|---|------------------|-----------------|------------------------|--------------|-----------|-------------------|-----------------|----------------------|----------------|------------|-------|---------------------|-----------------|------------|------------|
|                         |   |                  |                 |                        | DC           | AC        | Perpendicular     | In-line         | 0.5 (Nil)            | 1 (M)          | 3 (L)      | 5 (Z) |                     |                 |            |            |
| Solid state auto switch | Diagnostic indication (2-color indicator) | Grommet          | Yes             | 3-wire (NPN)           | 24 V         | 5 V, 12 V | —                 | <b>M9NV</b>     | <b>M9N</b>           | ●              | ●          | ●     | ○                   | ○               | IC circuit | Relay, PLC |
|                         |   |                  |                 | 3-wire (PNP)           |              |           |                   | <b>M9PV</b>     | <b>M9P</b>           | ●              | ●          | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 2-wire                 |              |           |                   | <b>M9BV</b>     | <b>M9B</b>           | ●              | ●          | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 3-wire (NPN)           |              |           |                   | <b>M9NWV</b>    | <b>M9NW</b>          | ●              | ●          | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 3-wire (PNP)           |              |           |                   | <b>M9PWV</b>    | <b>M9PW</b>          | ●              | ●          | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 2-wire                 |              |           |                   | <b>M9BWW</b>    | <b>M9BW</b>          | ●              | ●          | ●     | ○                   | ○               |            |            |
|                         | Water resistant (2-color indicator)       | Grommet          | Yes             | 3-wire (NPN)           | 24 V         | 5 V, 12 V | —                 | <b>M9NAV</b> *1 | <b>M9NA</b> *1       | ○              | ○          | ●     | ○                   | ○               | IC circuit | Relay, PLC |
|                         |   |                  |                 | 3-wire (PNP)           |              |           |                   | <b>M9PAV</b> *1 | <b>M9PA</b> *1       | ○              | ○          | ●     | ○                   | ○               |            |            |
|                         |   |                  |                 | 2-wire                 |              |           |                   | <b>M9BAV</b> *1 | <b>M9BA</b> *1       | ○              | ○          | ●     | ○                   | ○               |            |            |
| Feed auto switch        | —   | Grommet          | Yes             | 3-wire (Equiv. to NPN) | 24 V         | 5 V       | 100 V             | <b>A96V</b>     | <b>A96</b>           | ●              | —          | ●     | —                   | —               | IC circuit | —          |
|                         |   |                  |                 | 2-wire                 |              |           |                   | 12 V            | 100 V or less        | <b>A93V</b> *2 | <b>A93</b> | ●     | ●                   | ●               | ●          | —          |
|                         |   |                  | None            | 2-wire                 | 24 V         | 12 V      | 100 V or less     | <b>A90V</b>     | <b>A90</b>           | ●              | —          | ●     | —                   | —               | IC circuit | PLC        |

- \*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance. A water-resistant type cylinder is recommended for use in an environment which requires water resistance.
- \*2 1 m lead wire is only applicable to the D-A93.
- \* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NV  
1 m ..... M (Example) M9NWV  
3 m ..... L (Example) M9NWV  
5 m ..... Z (Example) M9NWZ

- \* Solid state auto switches marked with "○" are produced upon receipt of order.
- \* Since there are applicable auto switches other than those listed above, refer to page 125 for details.
- \* For details about auto switches with pre-wired connectors, refer to the **Web Catalog** or Best Pneumatics Catalog.
- \* Auto switches are shipped together, but not assembled.



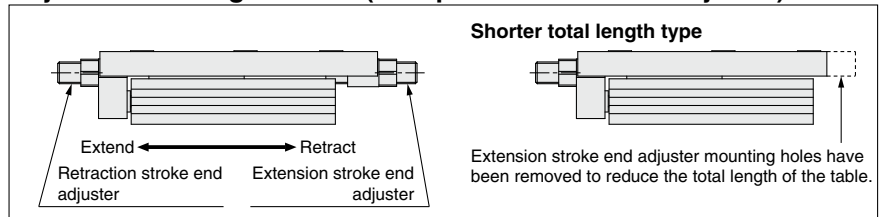
### Made to Order (For details, refer to pages 127 to 156.)

| Symbol | Specifications   |
|--------|--|
| -X7    | PTFE grease  |
| -X9    | Grease for food processing equipment                         |
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         |
| -X28   | Long adjustment nut and bolt                                 |
| -X33   | Without built-in auto switch magnet                          |
| -X39   | Fluororubber seal  |
| -X42   | Anti-corrosive guide unit                                    |
| -X45   | EPDM seal  |
| -X580  | Low-speed specification (15 to 50 mm/s)                      |
| -X2100 | End plate compatible with the current MXQ series             |
| -X2128 | Heat-resistant specification (-10 to 100°)                   |
| -X2200 | Side adjuster specification                                  |
| -X2201 | Combined use of shock absorber + metal stopper               |
| -X2202 | Extension stroke end adjuster fixed from the axial direction |

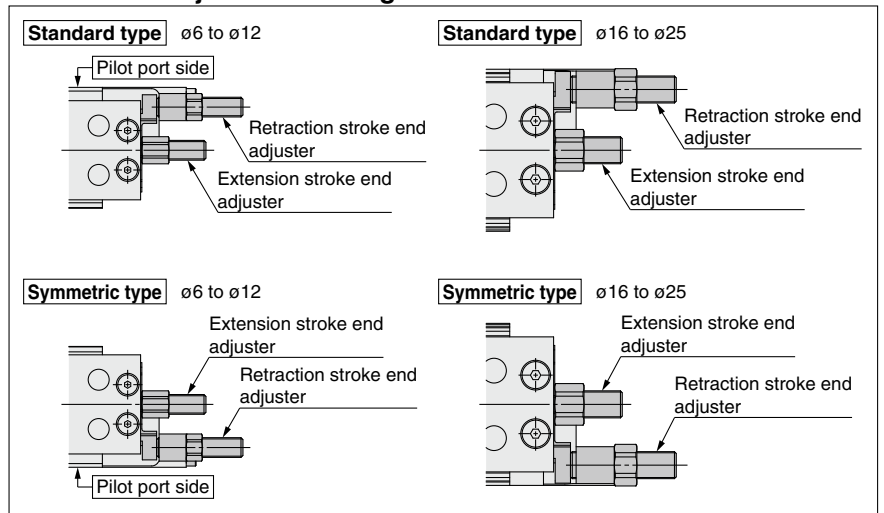
#### Moisture Control Tube IDK Series

When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **IDK series in the Best Pneumatics No. 6 Catalog**.

### Adjuster Mounting Position (Exception: Centralized Adjuster)



### Centralized Adjuster Mounting Position



# MXQ Series

## Specifications

| Bore size [mm]                                     | 6   | 8 | 12 | 16 | 20 | 25 |
|--|---|---|----|----|----|----|
| Piping port size                                   | M5 x 0.8  |   |    |    |    |    |
| Fluid  | Air   |   |    |    |    |    |
| Action   | Double acting   |   |    |    |    |    |
| Operating pressure                                 | 0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)   |   |    |    |    |    |
| Proof pressure                                     | 1.05 MPa  |   |    |    |    |    |
| Ambient and fluid temperatures                     | -10 to 60°C   |   |    |    |    |    |
| Operating speed range<br>(Average operating speed) | 50 to 500 mm/s<br>(Metal stopper with bumper: 50 to 300 mm/s)<br>(Metal stopper: 50 to 200 mm/s)<br>* in the standard stroke table on page 83: 50 to 300 mm/s |   |    |    |    |    |
| Cushion<br>(Without stroke adjuster)               | Internal rubber bumper  |   |    |    |    |    |
| Cushion<br>(With stroke adjuster)                  | Metal stopper with bumper, Rubber stopper,<br>Shock absorber, Metal stopper   |   |    |    |    |    |
| Lubrication  | Non-lube  |   |    |    |    |    |
| Auto switch  | Solid state auto switch, Reed auto switch (2-wire, 3-wire)<br>2-color indicator solid state auto switch (2-wire, 3-wire)                                      |   |    |    |    |    |
| Stroke length tolerance                            | +2 to 0 mm  |   |    |    |    |    |

\*1 Refer to page 86 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part  
The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

## Weight

| Model | Standard stroke [mm] |       |       |       |       |       |       |       |       |                      | Reduction of the shorter total length type | Additional weight of adjuster option |        | Extra for option |              |  |
|-------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|--|--------------------------------------|--------|------------------|--------------|--|
|       | 10                   | 20    | 30    | 40    | 50    | 75    | 100   | 125   | 150   | Extension stroke end |  | Retraction stroke end                | Buffer | End lock         | Axial piping |  |
| MXQ6  | 120                  | 120   | 160   | 180   | 190   | —     | —     | —     | —     | -6                   | 10   | 8                                    | 30     | 40               | No addition  |  |
| MXQ8  | 150                  | 180   | 190   | 230   | 310   | 350   | —     | —     | —     | -6                   | 10   | 8                                    | 30     | 60               |              |  |
| MXQ12 | 290                  | 310   | 340   | 400   | 430   | 590   | 670   | —     | —     | -12                  | 20   | 16                                   | 70     | 80               |              |  |
| MXQ16 | 500                  | 520   | 570   | 650   | 690   | 840   | 1,100 | 1,200 | —     | -21                  | 40   | 30                                   | 120    | 150              |              |  |
| MXQ20 | 870                  | 870   | 900   | 990   | 1,100 | 1,300 | 1,700 | 2,000 | 2,100 | -33                  | 70   | 50 (80)                              | 190    | 400              |              |  |
| MXQ25 | 1,400                | 1,400 | 1,500 | 1,600 | 1,900 | 2,100 | 2,300 | 3,000 | 3,300 | -60                  | 110  | 80                                   | 310    | 700              |              |  |

\* Value in ( ) is the additional weight of the shock absorber.

## Weight of Centralized Adjuster

| Model | Standard stroke [mm] |                |                |                |                |                |                |                |                |   | Reduction only when the product comes with a retraction stroke end adjuster |
|-------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---|---|
|       | 10                   | 20             | 30             | 40             | 50             | 75             | 100            | 125            | 150            |   |   |
| MXQ6  | 160                  | 165            | 210            | 230            | 240            | —              | —              | —              | —              | — | -10   |
| MXQ8  | 195                  | 225            | 235            | 275            | 355            | 410            | —              | —              | —              | — | -10   |
| MXQ12 | 375                  | 405            | 435            | 495            | 525            | 685            | 765            | —              | —              | — | -20   |
| MXQ16 | 660                  | 690            | 740            | 820            | 860            | 1,010          | 1,270          | 1,370          | —              | — | -40   |
| MXQ20 | 1,140<br>(-60)       | 1,170<br>(-60) | 1,200<br>(-60) | 1,290<br>(-60) | 1,400<br>(-60) | 1,600<br>(-60) | 2,050<br>(-60) | 2,350<br>(-60) | 2,450<br>(-60) | — | -60<br>(-25)  |
| MXQ25 | 1,880                | 1,920          | 2,020          | 2,120          | 2,420          | 2,620          | 2,930          | 3,630          | 3,930          | — | -100  |

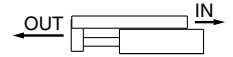
\* Value in ( ) is the additional weight of the shock absorber.

## Weight of Moving Parts

| Model | Standard stroke [mm] |     |     |     |     |     |       |       |       |                      | Reduction of the shorter total length type | Additional weight of adjuster option |        | Extra for option |              |  |
|-------|----------------------|-----|-----|-----|-----|-----|-------|-------|-------|----------------------|--|--------------------------------------|--------|------------------|--------------|--|
|       | 10                   | 20  | 30  | 40  | 50  | 75  | 100   | 125   | 150   | Extension stroke end |  | Retraction stroke end                | Buffer | End lock         | Axial piping |  |
| MXQ6  | 61                   | 66  | 80  | 89  | 97  | —   | —     | —     | —     | -6                   | 10   | 8                                    | 30     | 10               | No addition  |  |
| MXQ8  | 68                   | 76  | 85  | 97  | 116 | 138 | —     | —     | —     | -6                   | 10   | 8                                    | 30     | 10               |              |  |
| MXQ12 | 143                  | 154 | 168 | 192 | 206 | 263 | 300   | —     | —     | -12                  | 20   | 16                                   | 70     | 20               |              |  |
| MXQ16 | 240                  | 257 | 277 | 309 | 329 | 389 | 469   | 520   | —     | -21                  | 40   | 30                                   | 120    | 35               |              |  |
| MXQ20 | 408                  | 410 | 437 | 464 | 503 | 588 | 747   | 815   | 882   | -33                  | 70   | 50 (80)                              | 190    | 65               |              |  |
| MXQ25 | 674                  | 681 | 721 | 761 | 836 | 935 | 1,078 | 1,284 | 1,384 | -60                  | 110  | 80                                   | 310    | 110              |              |  |

\* Value in ( ) is the additional weight of the shock absorber.

## Theoretical Output



The dual rod ensures an output twice that of current cylinders. [N]

| Bore size [mm] | Rod size [mm] | Operating direction | Piston area [mm <sup>2</sup> ] | Operating pressure [MPa] |     |     |     |     |     |  |
|----------------|---------------|---------------------|--------------------------------|--------------------------|-----|-----|-----|-----|-----|--|
|                |               |                     |                                | 0.2                      | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 |  |
| 6              | 3             | OUT                 | 57                             | 11                       | 17  | 23  | 29  | 34  | 40  |  |
|                |               | IN                  | 42                             | 8                        | 13  | 17  | 21  | 25  | 29  |  |
| 8              | 4             | OUT                 | 101                            | 20                       | 30  | 40  | 51  | 61  | 71  |  |
|                |               | IN                  | 75                             | 15                       | 23  | 30  | 38  | 45  | 53  |  |
| 12             | 6             | OUT                 | 226                            | 45                       | 68  | 90  | 113 | 136 | 158 |  |
|                |               | IN                  | 170                            | 34                       | 51  | 68  | 85  | 102 | 119 |  |
| 16             | 6             | OUT                 | 402                            | 80                       | 121 | 161 | 201 | 241 | 281 |  |
|                |               | IN                  | 346                            | 69                       | 104 | 138 | 173 | 207 | 242 |  |
| 20             | 8             | OUT                 | 628                            | 126                      | 188 | 251 | 314 | 377 | 440 |  |
|                |               | IN                  | 528                            | 106                      | 158 | 211 | 264 | 317 | 369 |  |
| 25             | 10            | OUT                 | 982                            | 196                      | 295 | 393 | 491 | 589 | 687 |  |
|                |               | IN                  | 825                            | 165                      | 247 | 330 | 412 | 495 | 577 |  |

\* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 86.

## Maximum Load Weight

| Model | [kg]                   |                 |                           |                   |               |     |
|-------|------------------------|-----------------|---------------------------|-------------------|---------------|-----|
|       | Without adjuster       | Adjuster option |                           |                   |               |     |
|       | Internal rubber bumper | Rubber stopper  | Metal stopper with bumper | Shock absorber/RJ |               |     |
|       |                        |                 | Horizontal                | Vertical          | Metal stopper |     |
| MXQ6  | 0.6                    | 0.6             | —                         | 0.6               |               | 0.6 |
| MXQ8  | 1                      | 1               | 1                         | 1                 |               | 1   |
| MXQ12 | 2                      | 2               | 2                         | 1.5               | 1             | 2   |
| MXQ16 | 4                      | 4               | 4                         | 4                 | 2.5           | 4   |
| MXQ20 | 6                      | 6               | 6                         | 6                 |               | 6   |
| MXQ25 | 9                      | 9               | 9                         | 9                 | 6             | 9   |

## Allowable Kinetic Energy

| Model | [J]                    |                           |                |                   |               |
|-------|------------------------|---------------------------|----------------|-------------------|---------------|
|       | Without adjuster       | Adjuster option           |                |                   |               |
|       | Internal rubber bumper | Metal stopper with bumper | Rubber stopper | Shock absorber/RJ | Metal stopper |
| MXQ6  | 0.03                   | —                         | 0.06           | 0.175             | 0.009         |
| MXQ8  | 0.04                   | 0.018                     | 0.06           | 0.2               | 0.009         |
| MXQ12 | 0.11                   | 0.04                      | 0.12           | 0.33              | 0.02          |
| MXQ16 | 0.12                   | 0.08                      | 0.2            | 0.76              | 0.04          |
| MXQ20 | 0.24                   | 0.12                      | 0.4            | 1.47              | 0.06          |
| MXQ25 | 0.39                   | 0.18                      | 0.6            | 1.73              | 0.09          |

\* When selecting a model, refer to Model Selection on page 157 or use the Model Selection Software. Keep in mind that a model cannot be selected with only the allowable kinetic energy.

## Optional Specifications

### With End Lock

| Model                          | MXQ6        | MXQ8 | MXQ12 | MXQ16 | MXQ20 | MXQ25 |
|--------------------------------|-------------|------|-------|-------|-------|-------|
| Operating pressure range [MPa] | 0.35 to 0.7 |      |       |       |       |       |
| Holding force [N]              | 12          | 12   | 23    | 45    | 70    | 110   |

### With Buffer Mechanism

| Model                        | MXQ6                                      | MXQ8 | MXQ12 | MXQ16 | MXQ20 | MXQ25 |    |
|------------------------------|---|------|-------|-------|-------|-------|----|
| Operating speed range [mm/s] | 50 to 500 (Horizontal mounting 50 to 300) |      |       |       |       |       |    |
| Buffer stroke [mm]           | 5   |      |       | 10    |       |       |    |
| Buffer stroke load [N]       | Stroke at 0 [mm]                          | 3    | 5     | 9     | 16    | 25    | 40 |
|                              | Maximum stroke                            | 6    | 8     | 15    | 24    | 38    | 59 |

### Auto Switches Applicable to Buffer

| Type                    | Model  | Specifications                  | Electrical entry direction |
|-------------------------|--------|---------------------------------|----------------------------|
| Solid state auto switch | D-M9BV | With light, 2-wire              | Vertical                   |
|                         | D-M9NV | With light, 3-wire, Output: NPN |                            |
|                         | D-M9PV | With light, 3-wire, Output: PNP |                            |

## Adjusters

For adjuster option models and dimensions, refer to pages 123 and 124.

### Metal Stopper with Bumper

| Model  | MXQ8      | MXQ12  | MXQ16   | MXQ20   | MXQ25     |
|--|-----------|--------|---------|---------|-----------|
| Max. absorbed energy [J]                                       | 0.018     | 0.04   | 0.08    | 0.12    | 0.18      |
| Stroke absorption [mm]   | 2         | 2.8    | 3.6     | 4.4     | 5.5       |
| Min. operating pressure of metal stopper with bumper*1*2 [MPa] | 0.3       | 0.3    | 0.2     | 0.2     | 0.2       |
| <small>Reference</small> Full compression force of bumper [N]  | 20        | 42     | 65      | 97      | 154       |
| Mounting screw size [mm]                                       | M6 x 0.75 | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

\*1 Minimum operating pressure required to fully compress the protrusion of the bumper to get in contact with the metal part  
When using the metal stopper with bumper for positioning, use it at a pressure level exceeding the minimum operating pressure. For vertical mounting, the workpiece mass should be taken into consideration. For details, refer to Specific Product Precautions on page 196.

\*2 Not available for ø6

### Rubber Stopper

| Model                    | MXQ6      | MXQ8 | MXQ12  | MXQ16   | MXQ20   | MXQ25     |
|--------------------------|-----------|------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.06      |      |        |         |         |           |
| Mounting screw size [mm] | M6 x 0.75 |      | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

### Shock Absorber/RJ

| Model                                | MXQ6      | MXQ8 | MXQ12  | MXQ16   | MXQ20 | MXQ25     |
|--------------------------------------|-----------|------|--------|---------|-------|-----------|
| Max. absorbed energy [J]             | 0.35      |      | 0.5    | 1.5     | 3     | 3.7       |
| Stroke absorption [mm]               | 3         |      | 5      | 6       | 7     | 10        |
| Collision speed [mm/s]               | 50 to 500 |      |        |         |       |           |
| Max. operating frequency [cycle/min] | 80        |      | 80     | 70      |       | 45        |
| Max. allowable thrust [N]            | 150       |      | 245    | 422     |       | 814       |
| Spring force (Extended) [N]          | 1.3       |      | 2.8    | 5.4     |       | 6.4       |
| Spring force (Compressed) [N]        | 3.9       |      | 4.9    | 8       |       | 15        |
| Mounting screw size [mm]             | M6 x 0.75 |      | M8 x 1 | M10 x 1 |       | M14 x 1.5 |

### Metal Stopper

| Model                    | MXQ6      | MXQ8 | MXQ12  | MXQ16   | MXQ20   | MXQ25     |
|--------------------------|-----------|------|--------|---------|---------|-----------|
| Max. absorbed energy [J] | 0.009     |      |        |         |         |           |
| Mounting screw size [mm] | M6 x 0.75 |      | M8 x 1 | M10 x 1 | M12 x 1 | M14 x 1.5 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

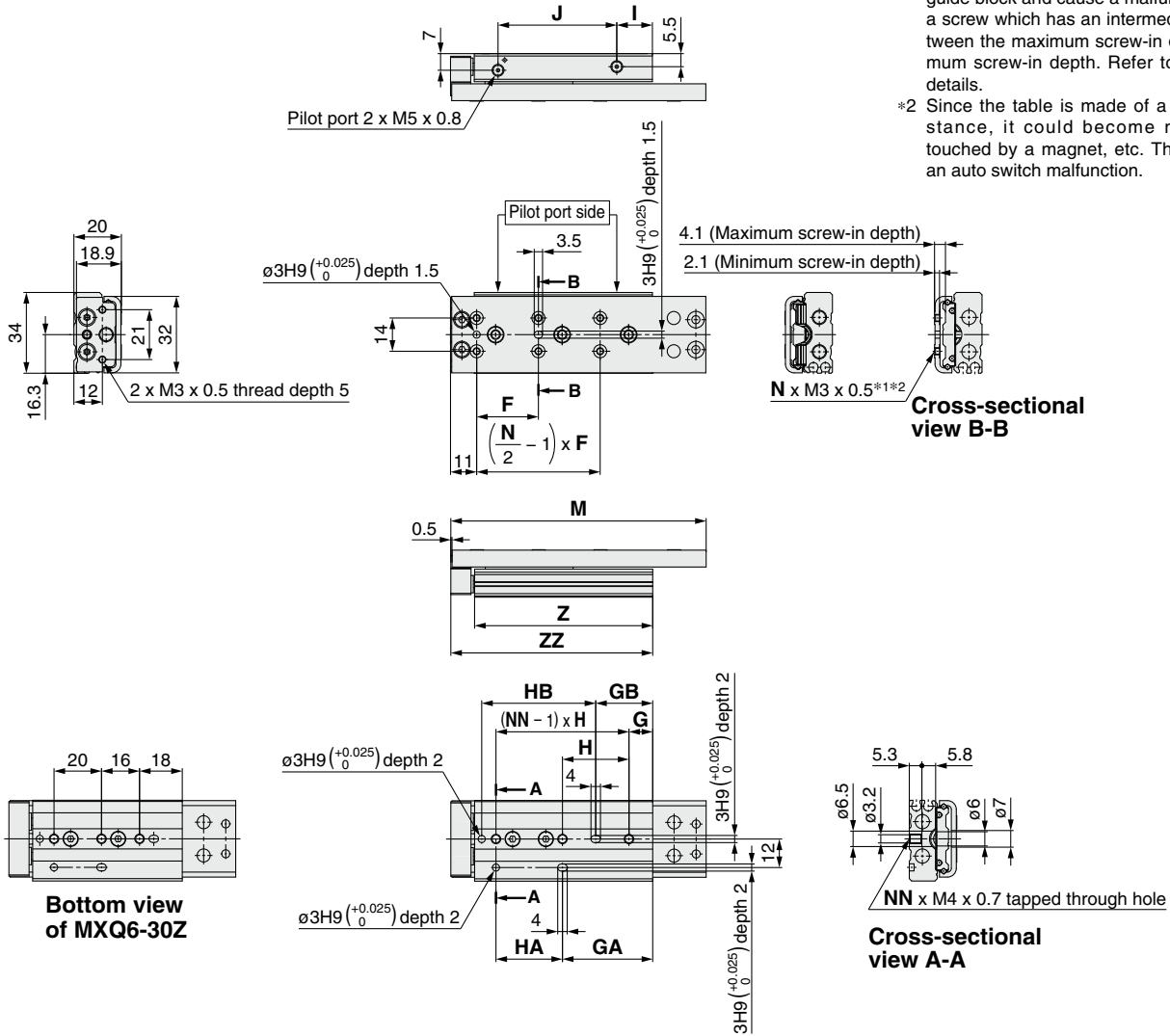
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **6** [Standard]

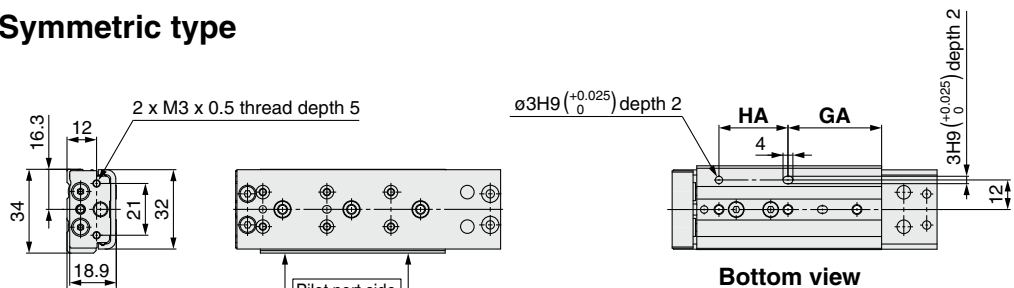
### MXQ **6**-□**Z** Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

### MXQ **6L**-□**Z** Symmetric type



\* Dimensions other than those listed above are the same as those for the standard type.

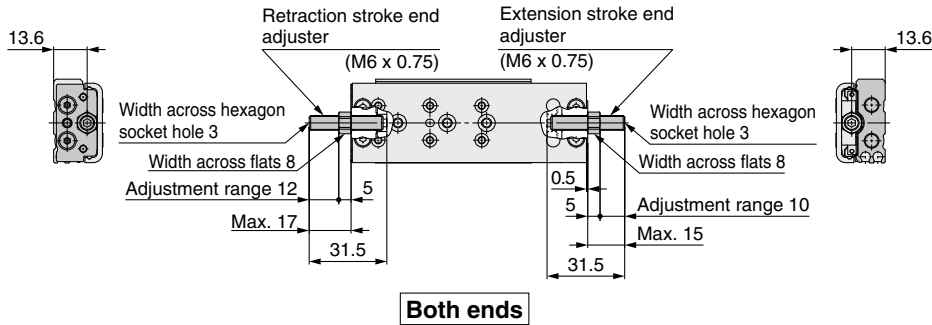
#### Dimensions

| Model    | F  | G  | GA | GB | H  | HA | HB | I  | J  | M     | N | NN | Z  | ZZ |
|----------|----|----|----|----|----|----|----|----|----|-------|---|----|----|----|
| MXQ6-10Z | 22 | 18 | 25 | 9  | 23 | 16 | 38 | 10 | 30 | 64.5  | 4 | 2  | 50 | 60 |
| MXQ6-20Z | 25 | 15 | 15 | 9  | 26 | 26 | 38 | 10 | 30 | 74.5  | 4 | 2  | 50 | 60 |
| MXQ6-30Z | 21 | —  | 34 | 12 | —  | 20 | 48 | 13 | 40 | 95.5  | 6 | 3  | 63 | 73 |
| MXQ6-40Z | 26 | 10 | 38 | 24 | 28 | 28 | 48 | 15 | 50 | 107.5 | 6 | 3  | 75 | 85 |
| MXQ6-50Z | 27 | 20 | 48 | 34 | 28 | 28 | 48 | 15 | 60 | 117.5 | 6 | 3  | 85 | 95 |

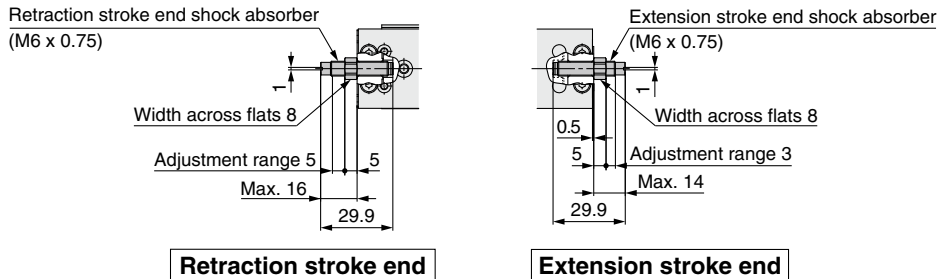
# Dimensions: MXQ **6** [Adjuster Option]

MXQ **6**-□□□□ With adjuster option (ø6)

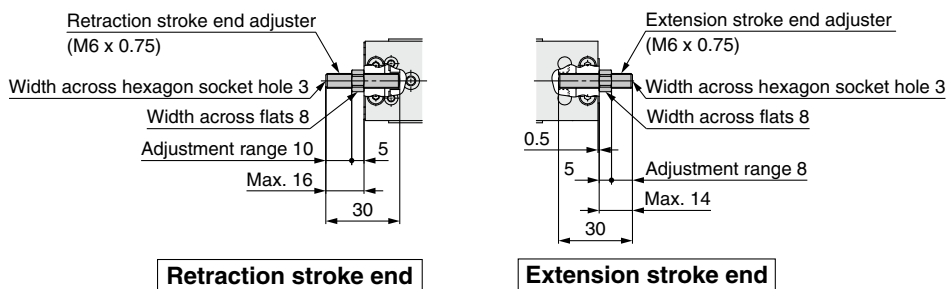
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)

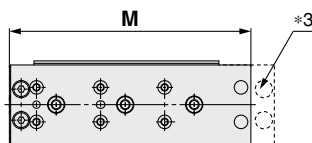


Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ **6**-□□**ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

| Dimensions [mm]  |     |
|------------------|-----|
| Model            | M   |
| <b>MXQ6-10ZN</b> | 55  |
| <b>MXQ6-20ZN</b> | 65  |
| <b>MXQ6-30ZN</b> | 86  |
| <b>MXQ6-40ZN</b> | 98  |
| <b>MXQ6-50ZN</b> | 108 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

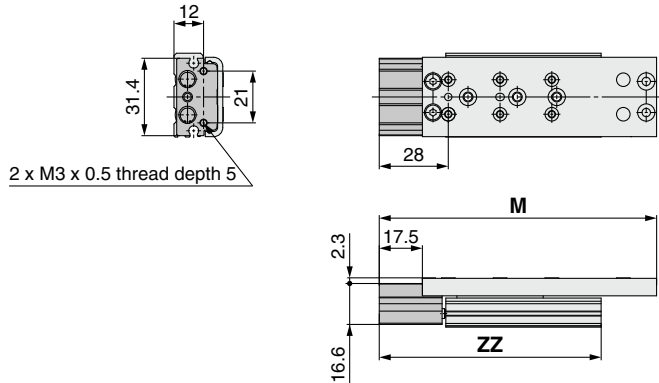
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **6** [Functional Option]

### MXQ **6-□□1** With buffer (ø6)

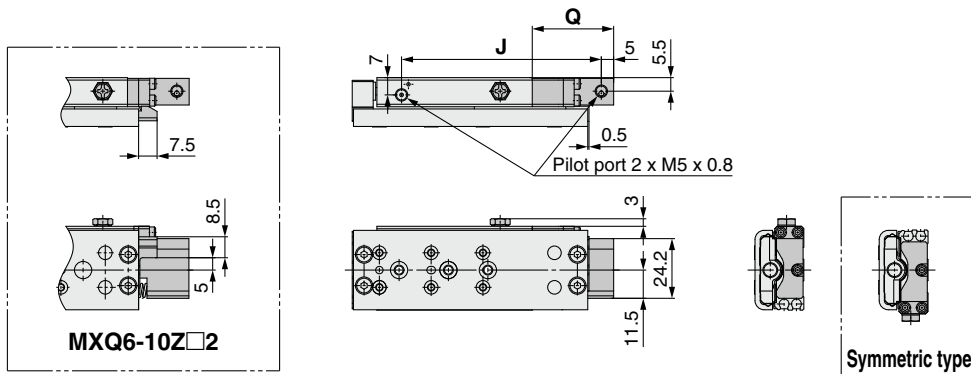


#### Dimensions [mm]

| Model      | Standard type | Shorter total length type | ZZ  |
|------------|---------------|---------------------------|-----|
|            | M             | M                         |     |
| MXQ6-10Z□1 | 81.5          | 72                        | 77  |
| MXQ6-20Z□1 | 91.5          | 82                        |     |
| MXQ6-30Z□1 | 112.5         | 103                       | 90  |
| MXQ6-40Z□1 | 124.5         | 115                       | 102 |
| MXQ6-50Z□1 | 134.5         | 125                       | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **6-□□2** With end lock (ø6)



#### Dimensions [mm]

| Model      | J   | Q  |
|------------|-----|----|
| MXQ6-10Z□2 | 60  | 25 |
| MXQ6-20Z□2 |     |    |
| MXQ6-30Z□2 | 81  | 33 |
| MXQ6-40Z□2 | 93  |    |
| MXQ6-50Z□2 | 103 |    |

\* Dimensions other than those listed above are the same as those for the standard type.

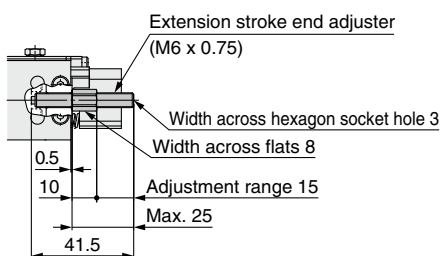
### MXQ **6-□□2** With end lock, extension stroke end adjuster (ø6)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

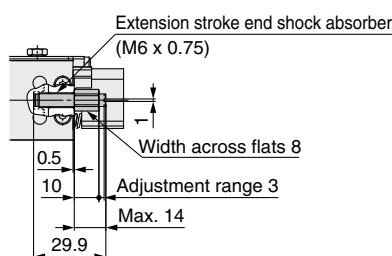
| Type                  | Adjuster part no. | Single adjustment bolt part no.*1 |
|-----------------------|-------------------|-----------------------------------|
| Rubber stopper: ZE    | MXQA-AT8-X28      | MXQA-A827-X11                     |
| Shock absorber/RJ: ZH | MXQA-JT8-X28      | RJ0603N                           |
| Metal stopper: ZL     | MXQA-DT8-X28      | MXQA-A838-X11                     |

\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

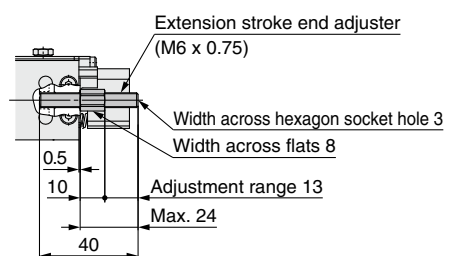
#### Rubber stopper: **ZE**



#### Shock absorber/RJ: **ZH**



#### Metal stopper: **ZL**

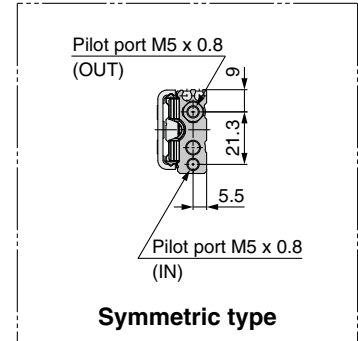
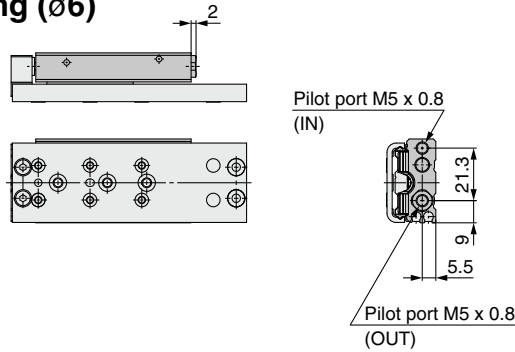


\* Dimensions other than those listed above are the same as those for the standard type.



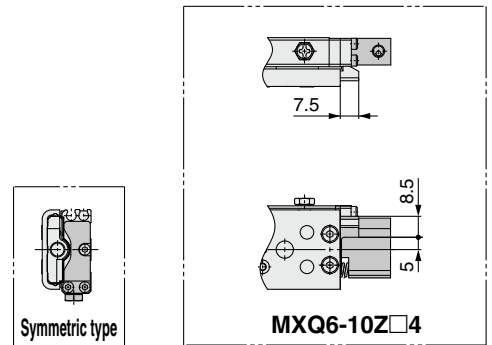
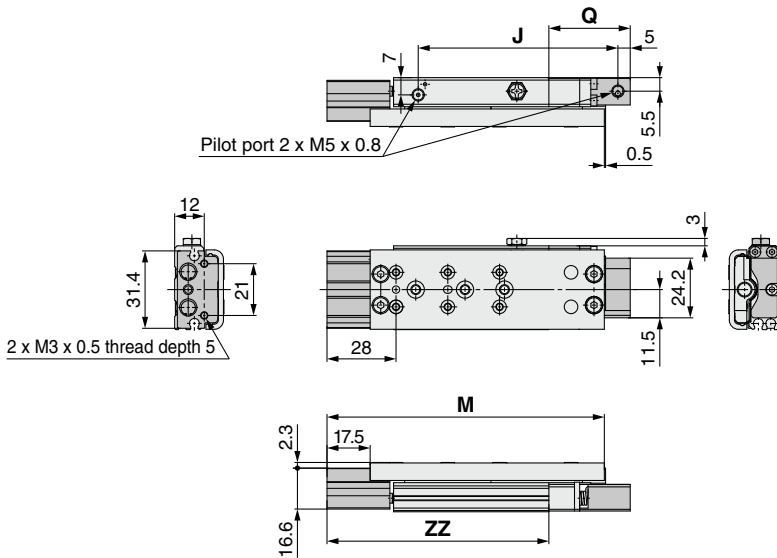
# Dimensions: MXQ **6** [Functional Option]

## MXQ 6-□□**3** Axial piping (ø6)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 6-□□**4** With buffer, end lock (ø6)

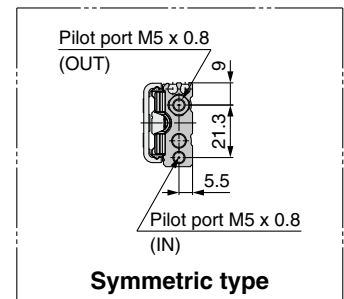
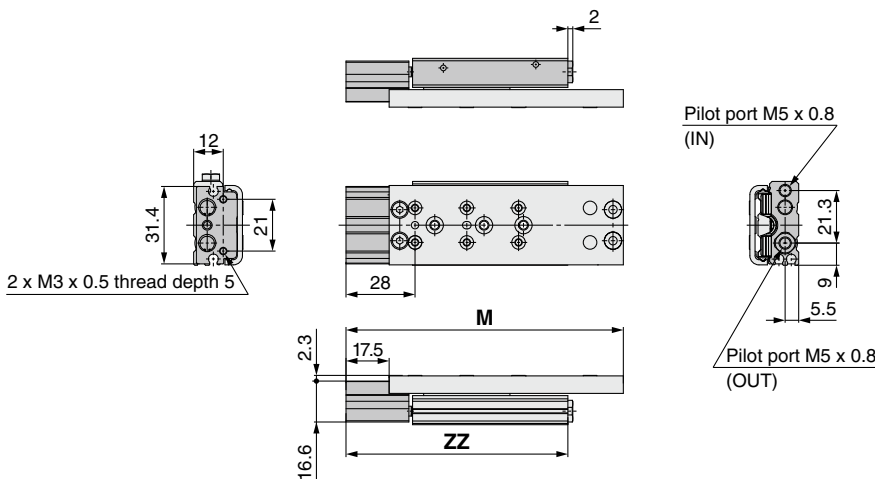


### Dimensions

| Model      | J   | Q  | Standard type |     | ZZ  |
|------------|-----|----|---------------|-----|-----|
|            |     |    | M             | M   |     |
| MXQ6-10Z□4 | 60  | 25 | 81.5          | 72  | 77  |
| MXQ6-20Z□4 |     |    | 91.5          | 82  |     |
| MXQ6-30Z□4 | 81  |    | 112.5         | 103 | 90  |
| MXQ6-40Z□4 | 93  | 33 | 124.5         | 115 | 102 |
| MXQ6-50Z□4 | 103 |    | 134.5         | 125 | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 6-□□**5** With buffer, axial piping (ø6)



### Dimensions

| Model      | Standard type |     | ZZ  |
|------------|---------------|-----|-----|
|            | M             | M   |     |
| MXQ6-10Z□5 | 81.5          | 72  | 77  |
| MXQ6-20Z□5 | 91.5          | 82  |     |
| MXQ6-30Z□5 | 112.5         | 103 | 90  |
| MXQ6-40Z□5 | 124.5         | 115 | 102 |
| MXQ6-50Z□5 | 134.5         | 125 | 112 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

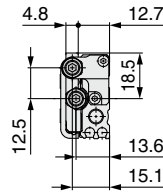
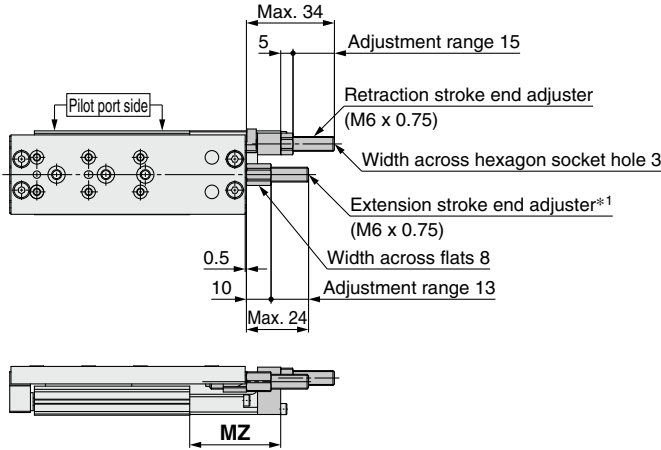


## Dimensions: MXQ **6** [Functional Option]

### MXQ **6**-□□**6** Centralized adjuster (∅6)

Metal stopper **ZK**: Both ends,  
**ZM**: Retraction stroke end

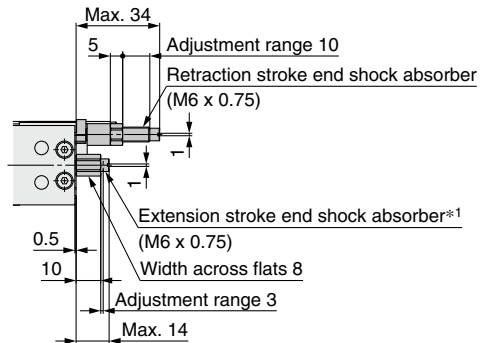
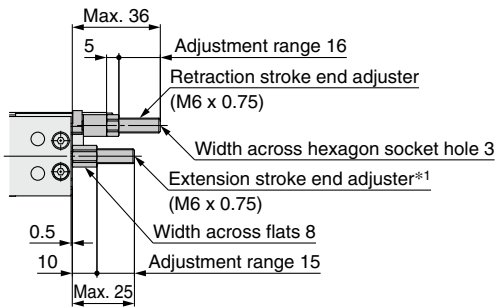
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ6-10Z□6      | 18.9 |
| MXQ6-20Z□6      | 28.9 |
| MXQ6-30Z□6      |      |
| MXQ6-40Z□6      | 36.9 |
| MXQ6-50Z□6      |      |

Rubber stopper **ZD**: Both ends,  
**ZF**: Retraction stroke end

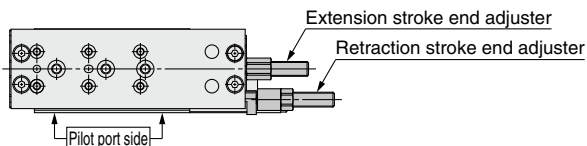
Shock absorber/RJ **ZG**: Both ends,  
**ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ **6L**-□□**7** Centralized adjuster / Symmetric type (∅6)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

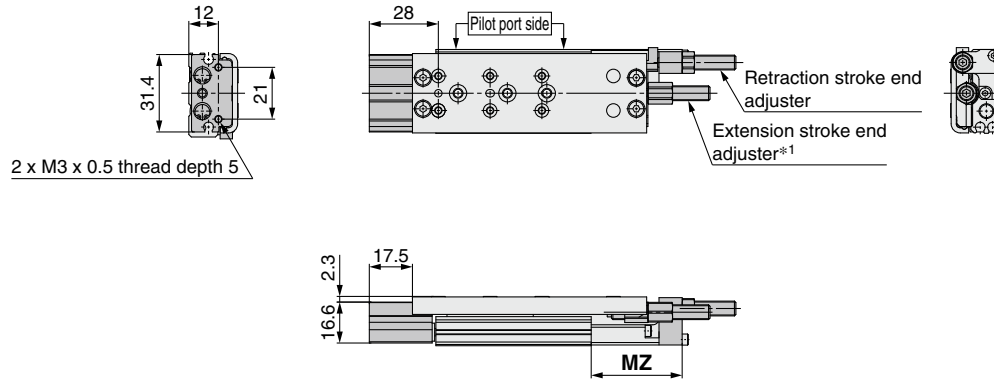


## Dimensions: MXQ **6** [Functional Option]

### MXQ 6-□□8 Buffer, Centralized adjuster (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

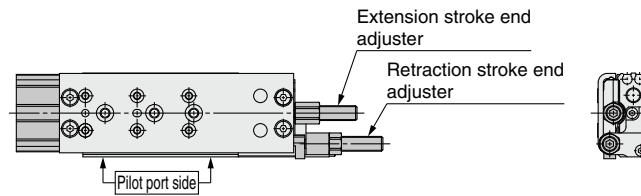


\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ6-10Z□8      | 18.9 |
| MXQ6-20Z□8      | 28.9 |
| MXQ6-30Z□8      | 36.9 |
| MXQ6-40Z□8      |      |
| MXQ6-50Z□8      |      |

### MXQ 6L-□□9 Buffer, Centralized adjuster / Symmetric type (ø6)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

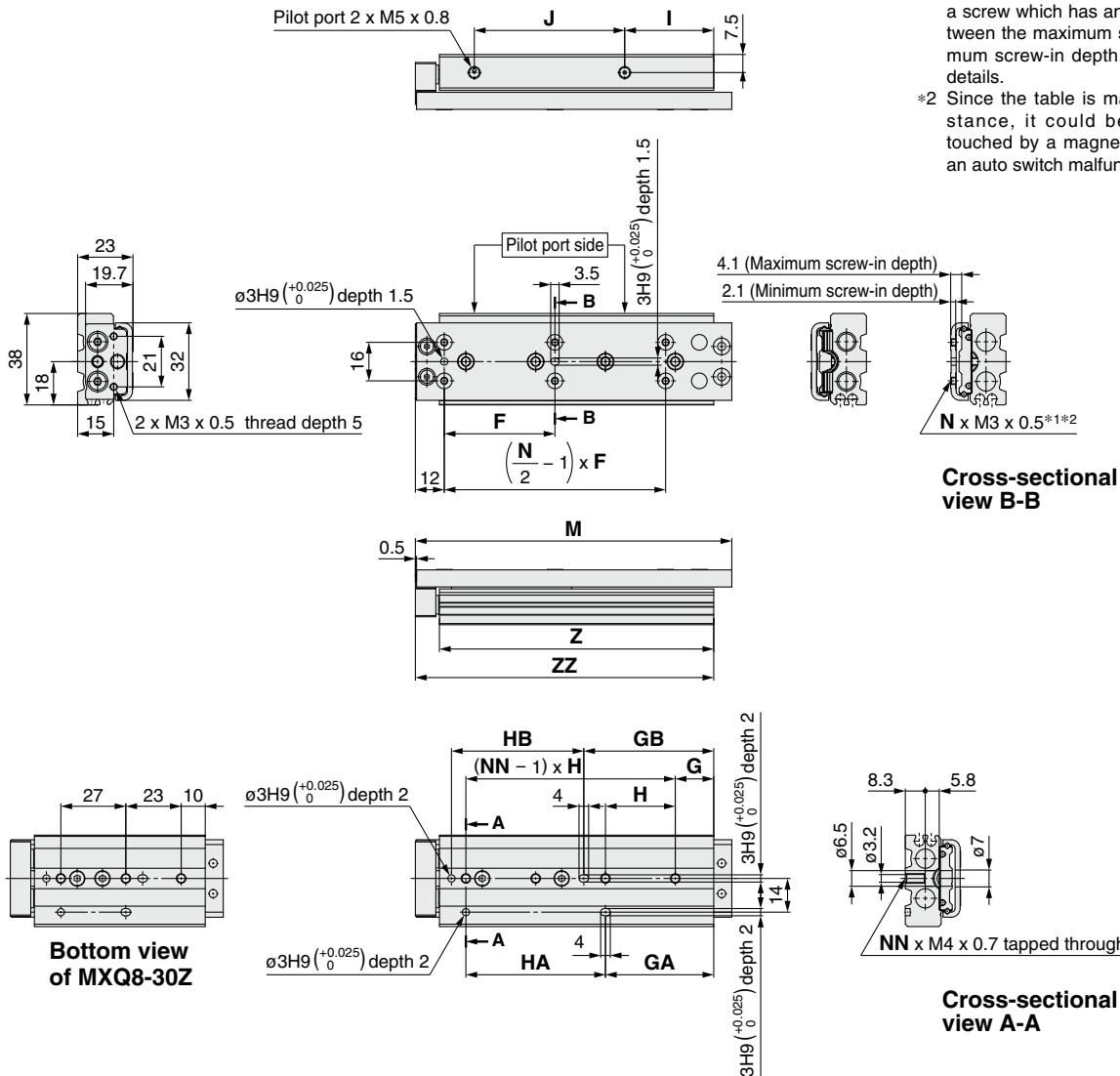
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **8** [Standard]

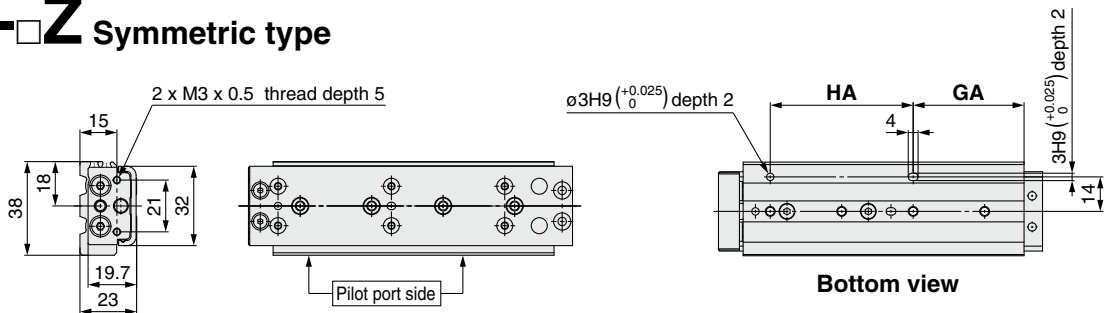
### MXQ **8-Z** Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

### MXQ **8L-Z** Symmetric type



\* Dimensions other than those listed above are the same as those for the standard type.

#### Dimensions

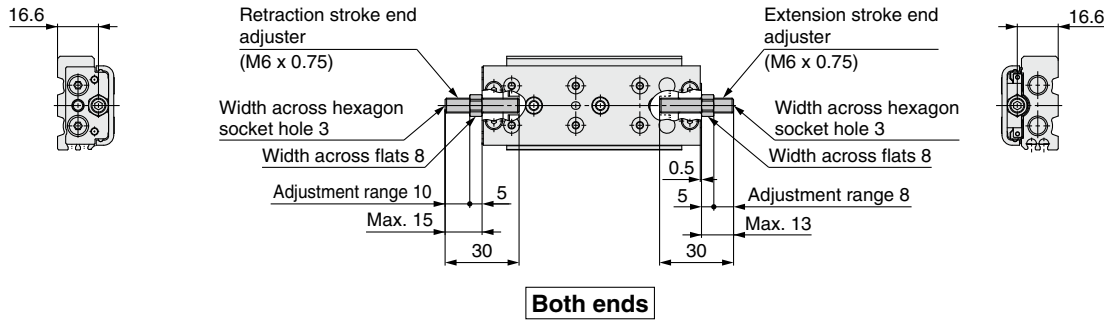
| Model    | F  | G  | GA | GB | H  | HA | HB | I    | J    | M     | N | NN | Z   | ZZ  |
|----------|----|----|----|----|----|----|----|------|------|-------|---|----|-----|-----|
| MXQ8-10Z | 25 | 15 | 21 | 9  | 25 | 19 | 37 | 10   | 26.5 | 68.5  | 4 | 2  | 51  | 61  |
| MXQ8-20Z | 25 | 22 | 22 | 16 | 28 | 28 | 40 | 14   | 32.5 | 78.5  | 4 | 2  | 61  | 71  |
| MXQ8-30Z | 26 | —  | 33 | 26 | —  | 27 | 40 | 14.5 | 42   | 88.5  | 6 | 3  | 71  | 81  |
| MXQ8-40Z | 32 | 14 | 45 | 27 | 31 | 31 | 55 | 20   | 52.5 | 104.5 | 6 | 3  | 87  | 97  |
| MXQ8-50Z | 46 | 16 | 45 | 54 | 29 | 58 | 55 | 37   | 62.5 | 131.5 | 6 | 4  | 114 | 124 |
| MXQ8-75Z | 50 | 15 | 45 | 56 | 30 | 60 | 55 | 10   | 91.5 | 156.5 | 6 | 4  | 116 | 126 |

# Dimensions: MXQ **8** [Adjuster Option]

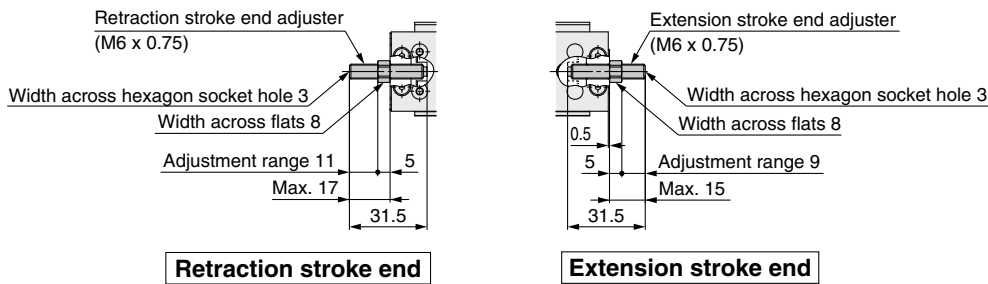
## MXQ 8-□ □ With adjuster option (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

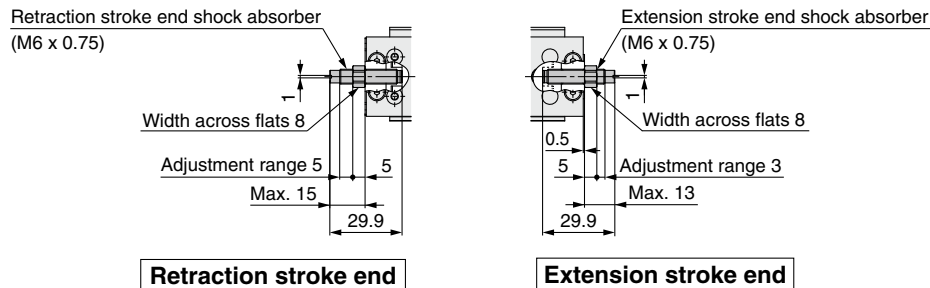
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

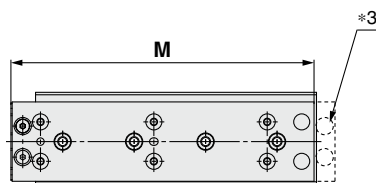


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 8-□ **ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

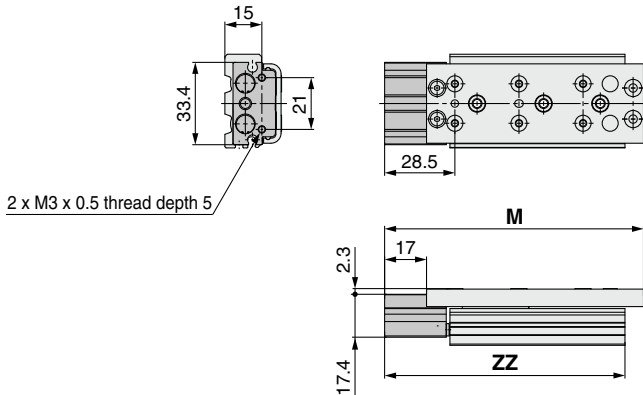
| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ8-10ZN       | 60  |
| MXQ8-20ZN       | 70  |
| MXQ8-30ZN       | 80  |
| MXQ8-40ZN       | 96  |
| MXQ8-50ZN       | 123 |
| MXQ8-75ZN       | 148 |

\* Dimensions other than those listed above are the same as those for the standard type.

# MXQ Series

## Dimensions: MXQ **8** [Functional Option]

### MXQ 8-□□1 With buffer (ø8)

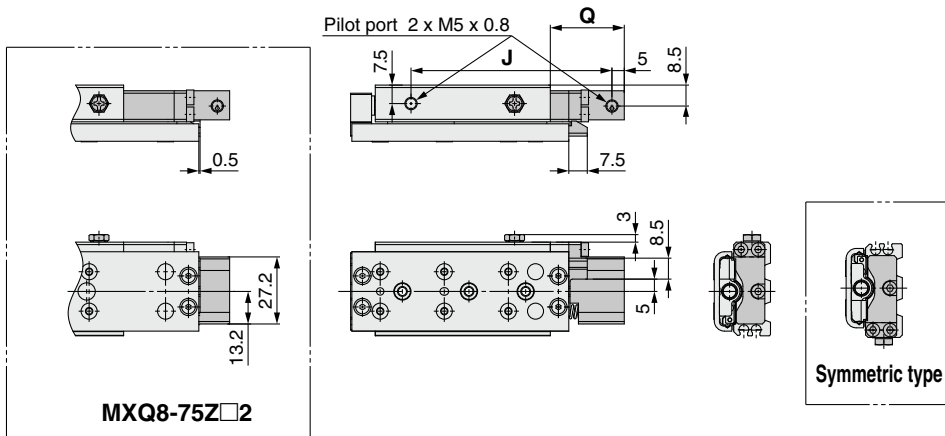


#### Dimensions [mm]

| Model      | Standard type |       | ZZ    |
|------------|---------------|-------|-------|
|            | M             | M     |       |
| MXQ8-10Z□1 | 85            | 76.5  | 77.5  |
| MXQ8-20Z□1 | 95            | 86.5  | 87.5  |
| MXQ8-30Z□1 | 105           | 96.5  | 97.5  |
| MXQ8-40Z□1 | 121           | 112.5 | 113.5 |
| MXQ8-50Z□1 | 148           | 139.5 | 140.5 |
| MXQ8-75Z□1 | 173           | 164.5 | 142.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 8-□□2 With end lock (ø8)



#### Dimensions [mm]

| Model      | J     | Q  |
|------------|-------|----|
|            |       |    |
| MXQ8-10Z□2 | 61.5  | 30 |
| MXQ8-20Z□2 | 71.5  |    |
| MXQ8-30Z□2 | 81.5  |    |
| MXQ8-40Z□2 | 97.5  |    |
| MXQ8-50Z□2 | 124.5 |    |
| MXQ8-75Z□2 | 139.5 | 43 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 8-□□2 With end lock, extension stroke end adjuster (ø8)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT8-X28      | MXQA-A887-X11                     |
| Rubber stopper: ZE            | MXQA-AT8-X28      | MXQA-A827-X11                     |
| Shock absorber/RJ: ZH         | MXQA-JT8-X28      | RJ0603N                           |
| Metal stopper: ZL             | MXQA-DT8-X28      | MXQA-A838-X11                     |

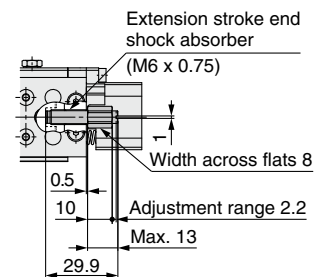
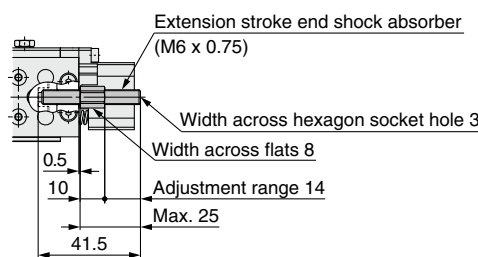
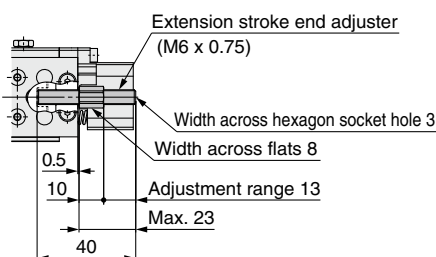
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

#### Metal stopper: **ZL**

#### Rubber stopper: **ZE**

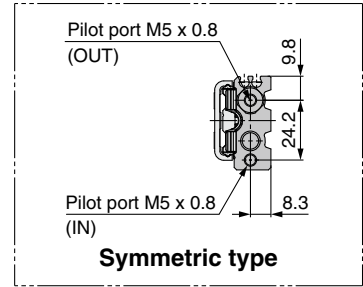
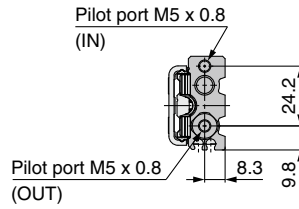
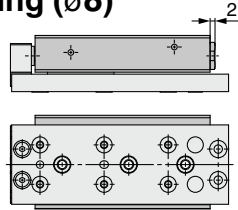
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

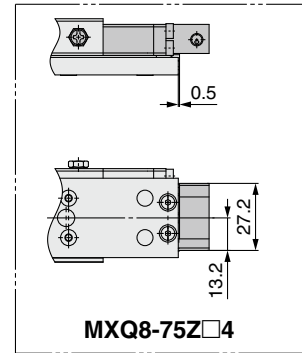
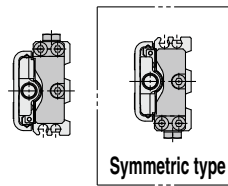
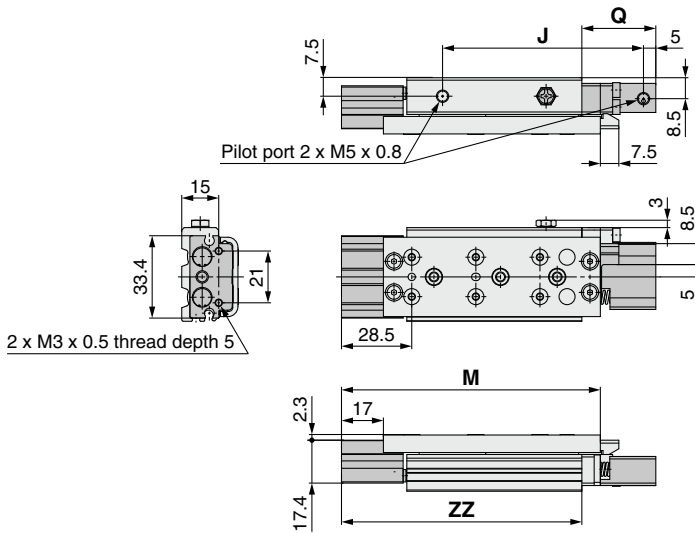
# Dimensions: MXQ **8** [Functional Option]

## MXQ 8-□□**3** Axial piping (ø8)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 8-□□**4** With buffer, end lock (ø8)

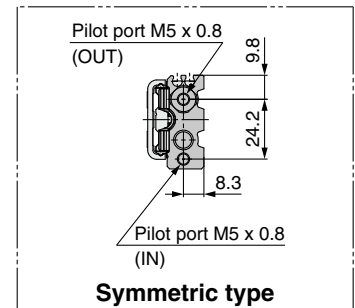
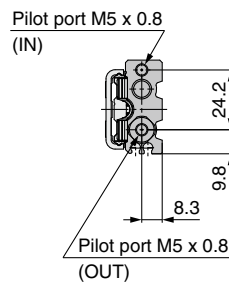
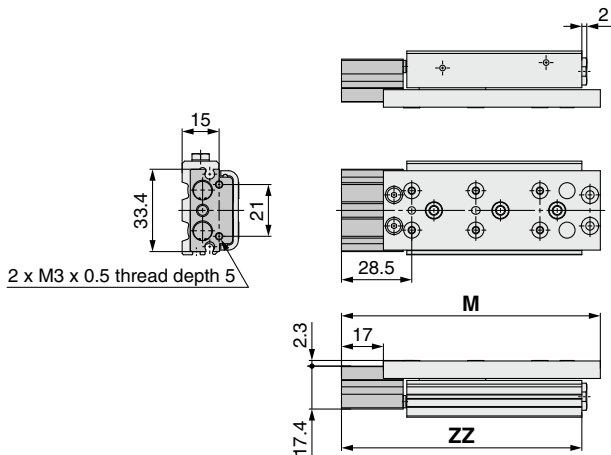


### Dimensions

| Model      | J     | Q  | Standard type |       | ZZ    |
|------------|-------|----|---------------|-------|-------|
|            |       |    | M             | M     |       |
| MXQ8-10Z□4 | 61.5  | 30 | 85            | 76.5  | 77.5  |
| MXQ8-20Z□4 | 71.5  |    | 95            | 86.5  | 87.5  |
| MXQ8-30Z□4 | 81.5  |    | 105           | 96.5  | 97.5  |
| MXQ8-40Z□4 | 97.5  |    | 121           | 112.5 | 113.5 |
| MXQ8-50Z□4 | 124.5 |    | 148           | 139.5 | 140.5 |
| MXQ8-75Z□4 | 139.5 | 43 | 173           | 164.5 | 142.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 8-□□**5** With buffer, axial piping (ø8)



### Dimensions

| Model      | Standard type |       | ZZ    |
|------------|---------------|-------|-------|
|            | M             | M     |       |
| MXQ8-10Z□5 | 85            | 76.5  | 77.5  |
| MXQ8-20Z□5 | 95            | 86.5  | 87.5  |
| MXQ8-30Z□5 | 105           | 96.5  | 97.5  |
| MXQ8-40Z□5 | 121           | 112.5 | 113.5 |
| MXQ8-50Z□5 | 148           | 139.5 | 140.5 |
| MXQ8-75Z□5 | 173           | 164.5 | 142.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

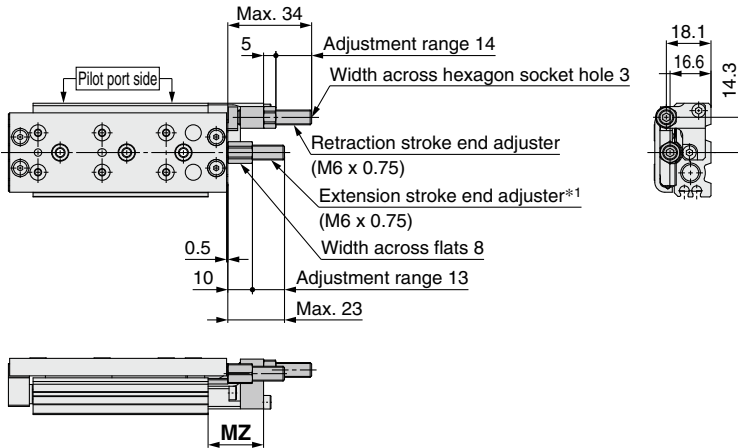
## Dimensions: MXQ **8** [Functional Option]

### MXQ 8-□□6 Centralized adjuster (ø8)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

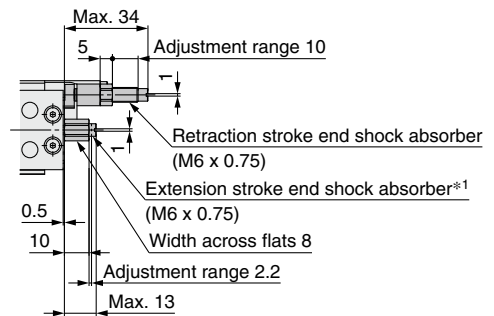
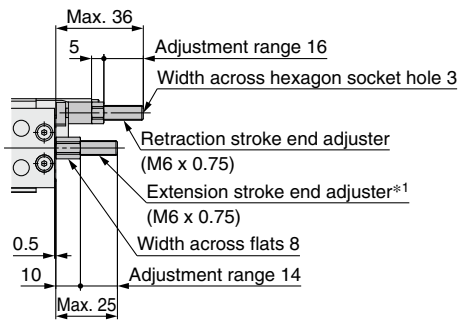
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8-10Z□6      | 22.5 |
| MXQ8-20Z□6      |      |
| MXQ8-30Z□6      |      |
| MXQ8-40Z□6      |      |
| MXQ8-50Z□6      | 46.5 |
| MXQ8-75Z□6      |      |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

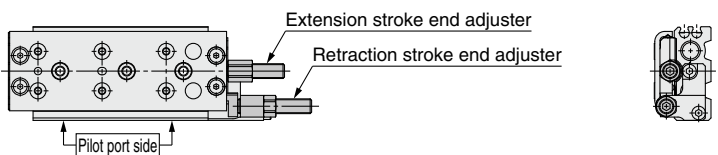
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 8L-□□7 Centralized adjuster / Symmetric type (ø8)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



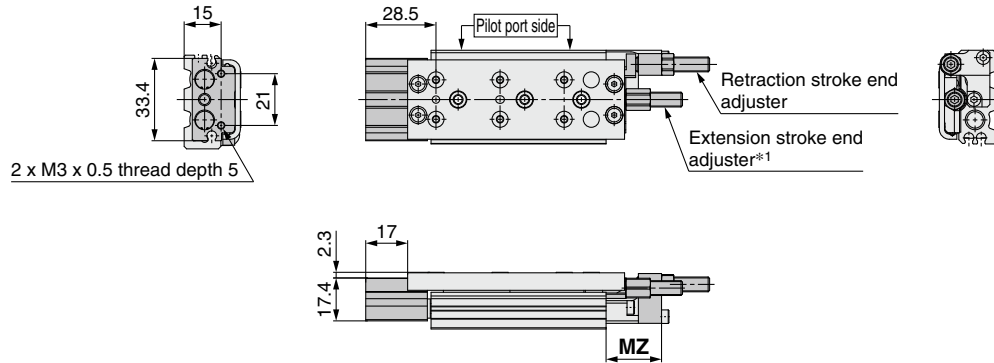


# Dimensions: MXQ **8** [Functional Option]

## MXQ **8**-□□**8** Buffer, Centralized adjuster (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

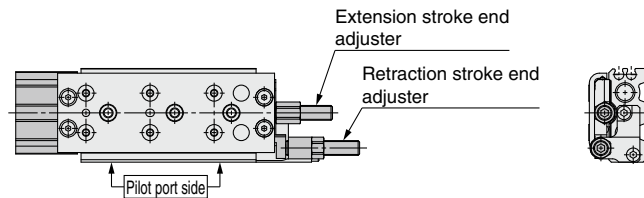


\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ8-10Z□8      | 22.5 |
| MXQ8-20Z□8      |      |
| MXQ8-30Z□8      |      |
| MXQ8-40Z□8      |      |
| MXQ8-50Z□8      | 46.5 |
| MXQ8-75Z□8      |      |

## MXQ **8L**-□□**9** Buffer, Centralized adjuster / Symmetric type (ø8)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

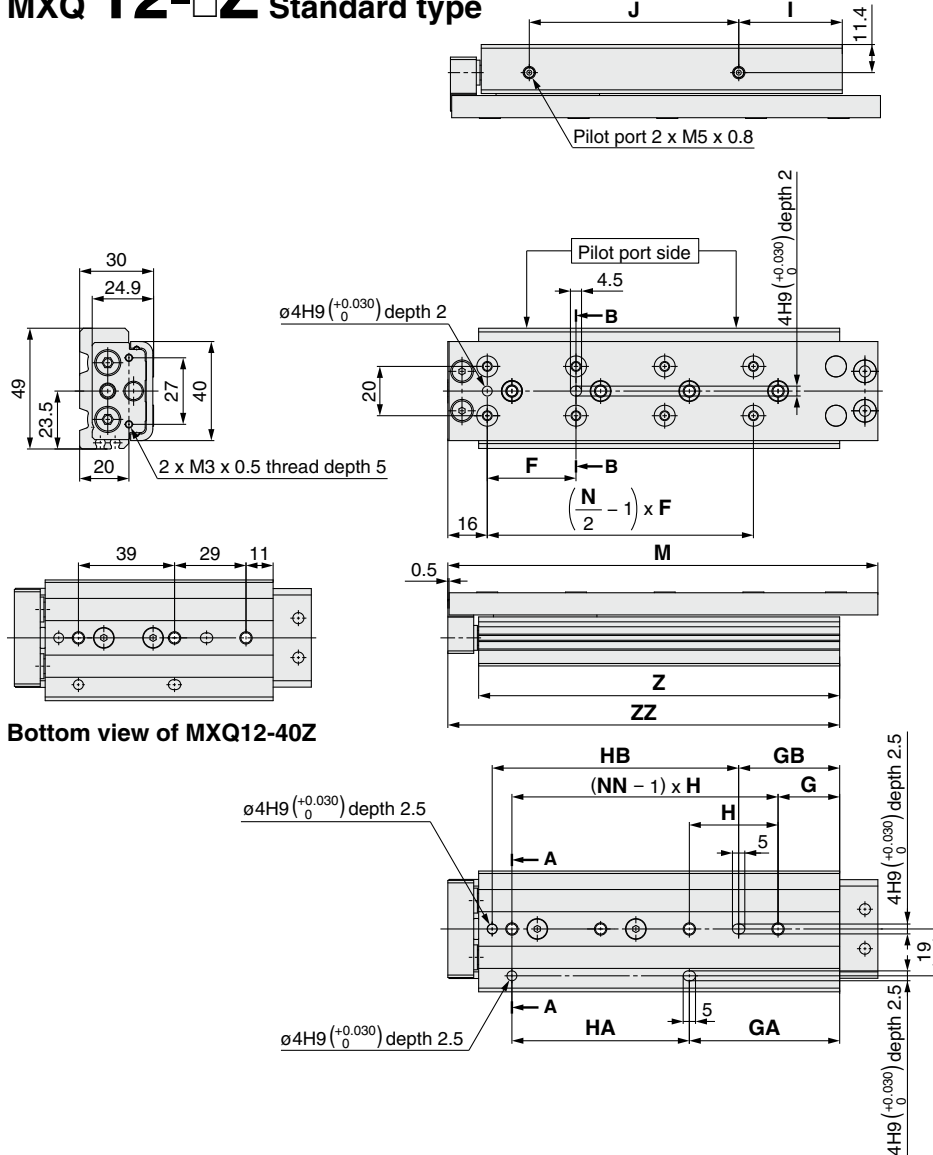
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **12** [Standard]

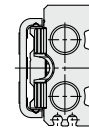
### MXQ 12-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.

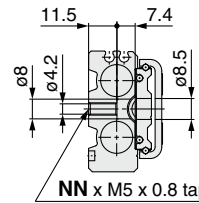
5.7 (Maximum screw-in depth)  
2.7 (Minimum screw-in depth)



N x M4 x 0.7\*1\*2

**Cross-sectional view B-B**

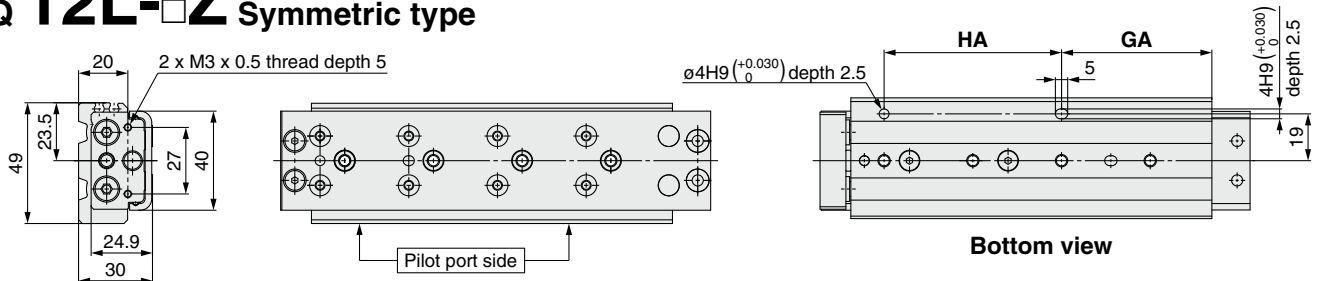
**Bottom view of MXQ12-40Z**



NN x M5 x 0.8 tapped through hole

**Cross-sectional view A-A**

### MXQ 12L-□Z Symmetric type



\* Dimensions other than those listed above are the same as those for the standard type.

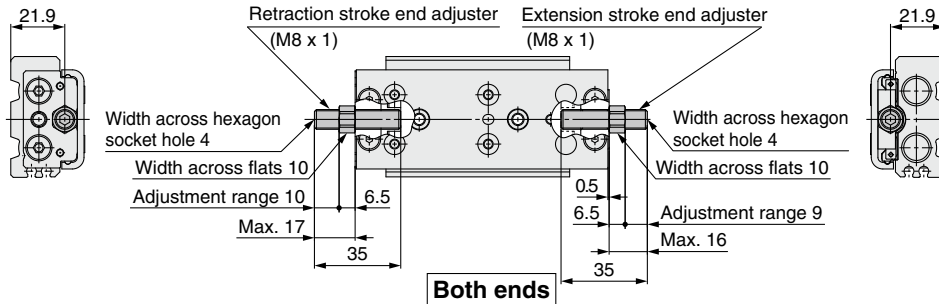
### Dimensions

| Model      | F  | G  | GA | GB | H  | HA | HB  | I  | J   | M     | N  | NN | Z     | ZZ  |
|------------|----|----|----|----|----|----|-----|----|-----|-------|----|----|-------|-----|
| MXQ12-10Z  | 28 | 17 | 17 | 11 | 32 | 32 | 46  | 11 | 32  | 82.5  | 4  | 2  | 62.5  | 75  |
| MXQ12-20Z  | 28 | 19 | 19 | 11 | 32 | 32 | 48  | 13 | 32  | 92.5  | 4  | 2  | 64.5  | 77  |
| MXQ12-30Z  | 38 | 21 | 21 | 11 | 40 | 40 | 58  | 15 | 40  | 102.5 | 4  | 2  | 74.5  | 87  |
| MXQ12-40Z  | 34 | —  | 40 | 27 | —  | 39 | 60  | 23 | 50  | 120.5 | 6  | 3  | 92.5  | 105 |
| MXQ12-50Z  | 34 | 11 | 50 | 37 | 39 | 39 | 60  | 23 | 60  | 130.5 | 6  | 3  | 102.5 | 115 |
| MXQ12-75Z  | 36 | 25 | 61 | 41 | 36 | 72 | 100 | 42 | 85  | 174.5 | 8  | 4  | 146.5 | 159 |
| MXQ12-100Z | 36 | 14 | 86 | 66 | 36 | 72 | 100 | 42 | 110 | 199.5 | 10 | 5  | 171.5 | 184 |

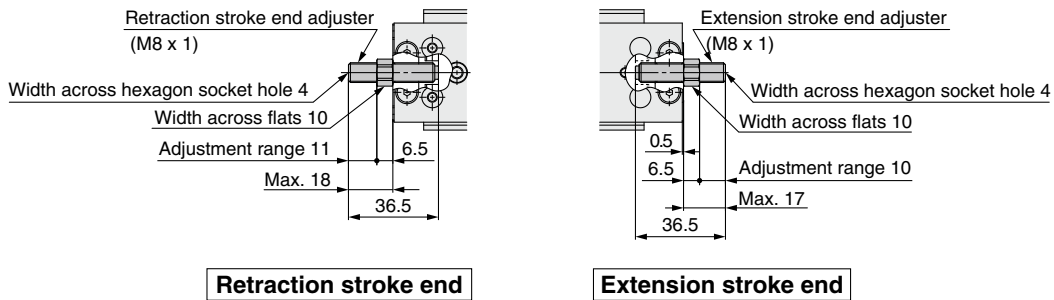
# Dimensions: MXQ **12** [Adjuster Option]

## MXQ 12-□ □ With adjuster option (∅12)

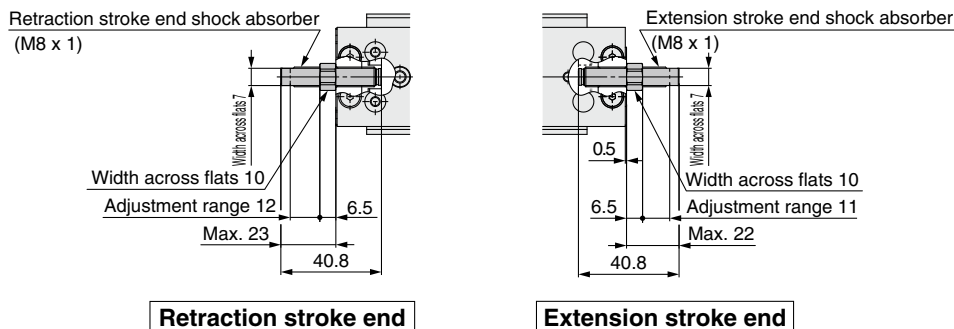
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)  
 Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

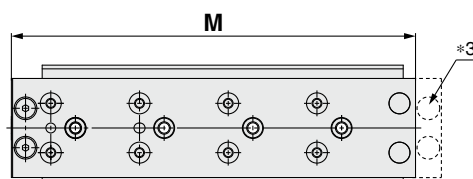


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 12-□ **ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ12-10ZN      | 72  |
| MXQ12-20ZN      | 82  |
| MXQ12-30ZN      | 92  |
| MXQ12-40ZN      | 110 |
| MXQ12-50ZN      | 120 |
| MXQ12-75ZN      | 164 |
| MXQ12-100ZN     | 189 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

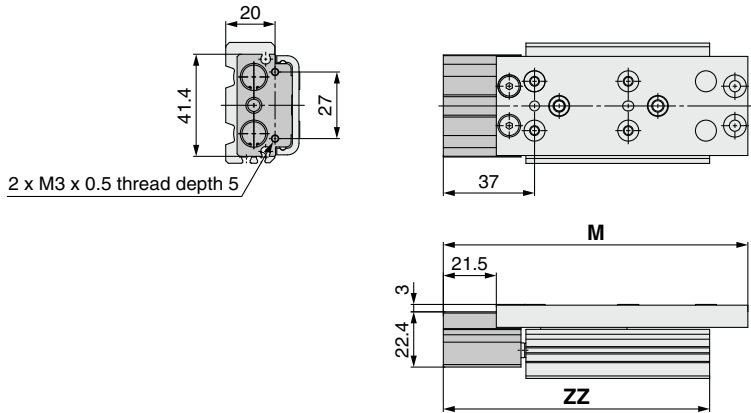
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **12** [Functional Option]

### MXQ 12-□□1 With buffer (∅12)

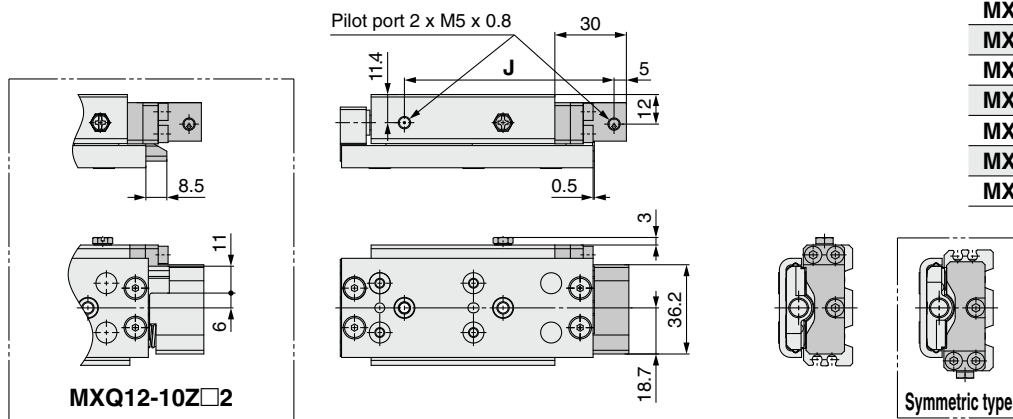


#### Dimensions [mm]

| Model        | Standard type | Shorter total length type | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | M                         |     |
| MXQ12-10Z□1  | 103.5         | 93                        | 96  |
| MXQ12-20Z□1  | 113.5         | 103                       | 98  |
| MXQ12-30Z□1  | 123.5         | 113                       | 108 |
| MXQ12-40Z□1  | 141.5         | 131                       | 126 |
| MXQ12-50Z□1  | 151.5         | 141                       | 136 |
| MXQ12-75Z□1  | 195.5         | 185                       | 180 |
| MXQ12-100Z□1 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 12-□□2 With end lock (∅12)



#### Dimensions [mm]

| Model        | J   |
|--------------|-----|
| MXQ12-10Z□2  | 68  |
| MXQ12-20Z□2  | 70  |
| MXQ12-30Z□2  | 80  |
| MXQ12-40Z□2  | 98  |
| MXQ12-50Z□2  | 108 |
| MXQ12-75Z□2  | 152 |
| MXQ12-100Z□2 | 177 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 12-□□2 With end lock, extension stroke end adjuster (∅12)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT12-X28     | MXQA-A1287-X11                    |
| Rubber stopper: ZE            | MXQA-AT12-X28     | MXQA-A1227-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT12-X28     | RJ0805U-X2300                     |
| Metal stopper: ZL             | MXQA-DT12-X28     | MXQA-A1238-X11                    |

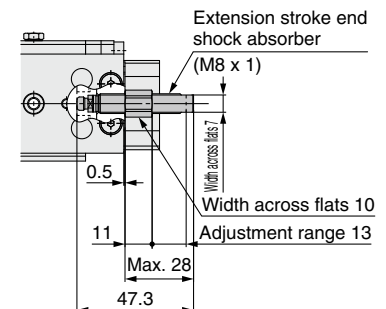
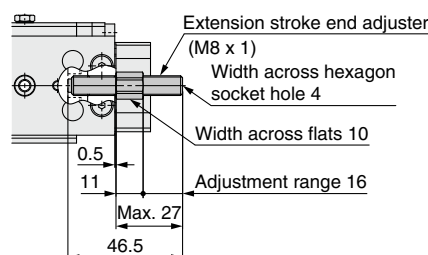
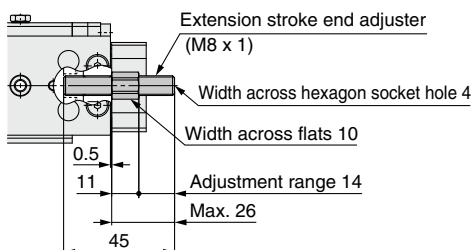
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

#### Metal stopper: **ZL**

#### Rubber stopper: **ZE**

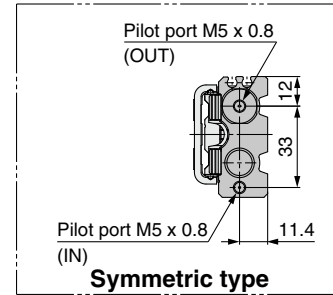
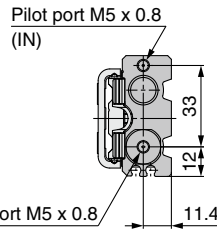
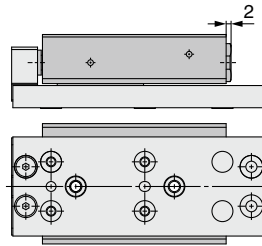
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

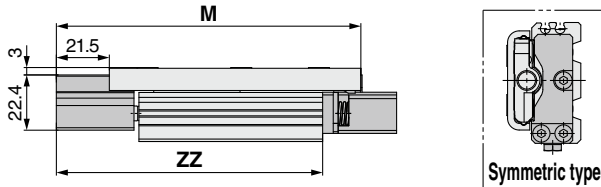
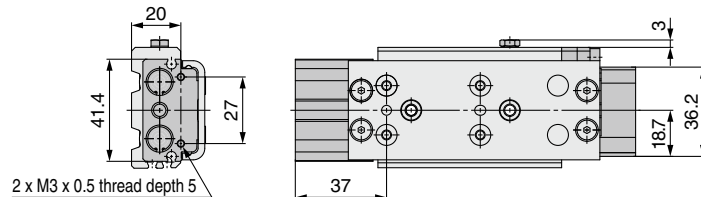
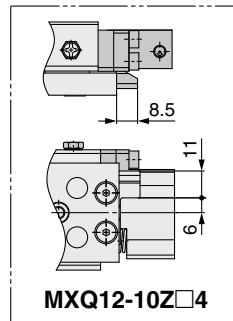
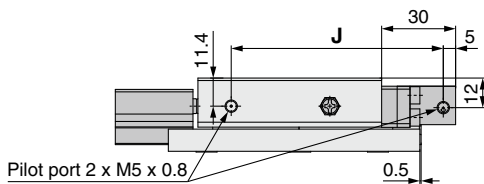
Dimensions: MXQ **12** [Functional Option]

MXQ 12-□□3 Axial piping (ø12)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12-□□4 With buffer, end lock (ø12)

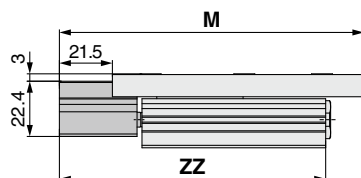
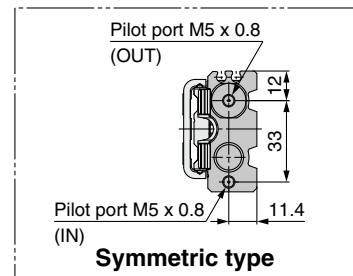
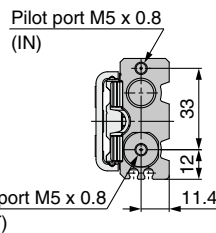
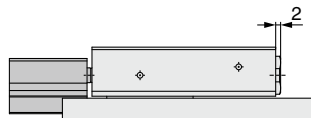
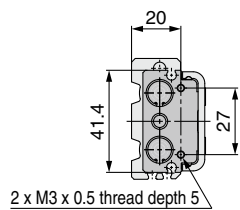


Dimensions [mm]

| Model        | J   | Standard type | Shorter total length type | ZZ  |
|--------------|-----|---------------|---------------------------|-----|
|              |     | M             | M                         |     |
| MXQ12-10Z□4  | 68  | 103.5         | 93                        | 96  |
| MXQ12-20Z□4  | 70  | 113.5         | 103                       | 98  |
| MXQ12-30Z□4  | 80  | 123.5         | 113                       | 108 |
| MXQ12-40Z□4  | 98  | 141.5         | 131                       | 126 |
| MXQ12-50Z□4  | 108 | 151.5         | 141                       | 136 |
| MXQ12-75Z□4  | 152 | 195.5         | 185                       | 180 |
| MXQ12-100Z□4 | 177 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

MXQ 12-□□5 With buffer, axial piping (ø12)



Dimensions [mm]

| Model        | Standard type | Shorter total length type | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | M                         |     |
| MXQ12-10Z□5  | 103.5         | 93                        | 96  |
| MXQ12-20Z□5  | 113.5         | 103                       | 98  |
| MXQ12-30Z□5  | 123.5         | 113                       | 108 |
| MXQ12-40Z□5  | 141.5         | 131                       | 126 |
| MXQ12-50Z□5  | 151.5         | 141                       | 136 |
| MXQ12-75Z□5  | 195.5         | 185                       | 180 |
| MXQ12-100Z□5 | 220.5         | 210                       | 205 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

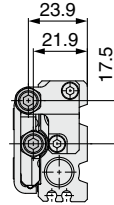
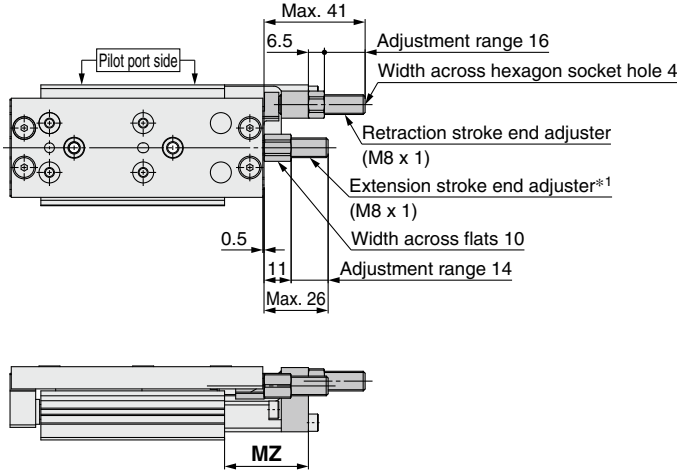
## Dimensions: MXQ **12** [Functional Option]

### MXQ 12-□□6 Centralized adjuster (ø12)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

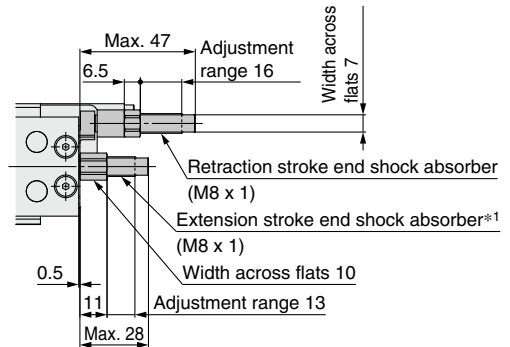
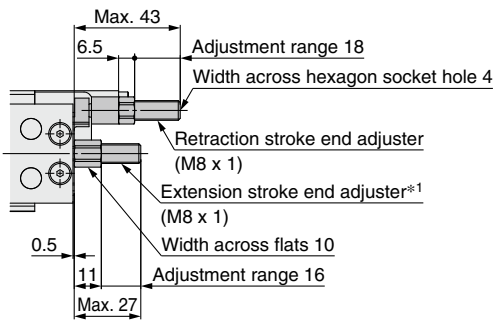
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12-10Z□6     | 26 |
| MXQ12-20Z□6     | 34 |
| MXQ12-30Z□6     |    |
| MXQ12-40Z□6     |    |
| MXQ12-50Z□6     |    |
| MXQ12-75Z□6     |    |
| MXQ12-100Z□6    |    |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

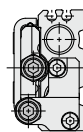
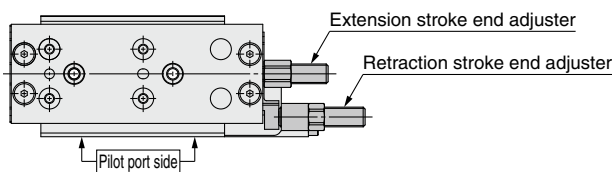
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 12L-□□7 Centralized adjuster / Symmetric type (ø12)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

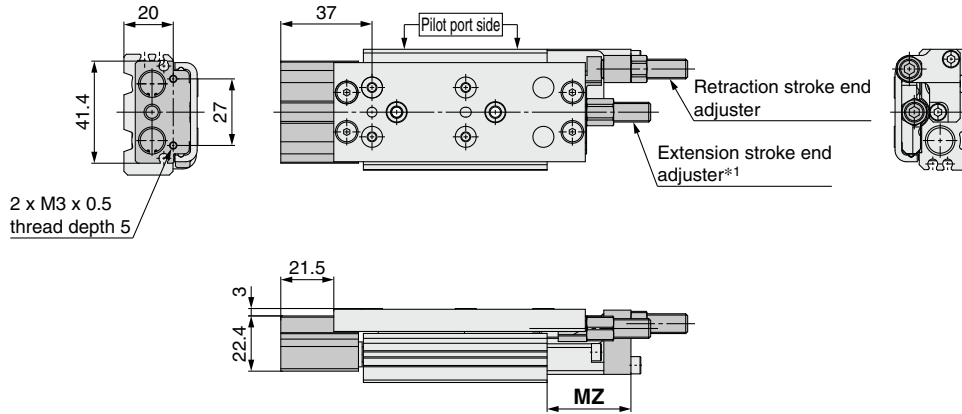


# Dimensions: MXQ **12** [Functional Option]

## MXQ 12-□□8 Buffer, Centralized adjuster (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

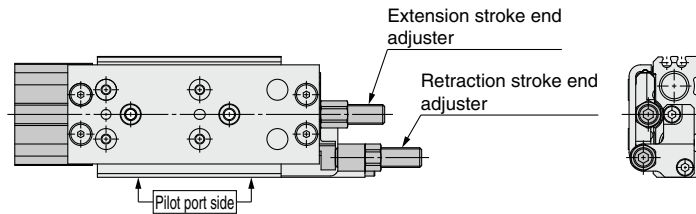


\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ12-10Z□8     | 26 |
| MXQ12-20Z□8     | 34 |
| MXQ12-30Z□8     |    |
| MXQ12-40Z□8     |    |
| MXQ12-50Z□8     |    |
| MXQ12-75Z□8     |    |
| MXQ12-100Z□8    |    |

## MXQ 12L-□□9 Buffer, Centralized adjuster / Symmetric type (ø12)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

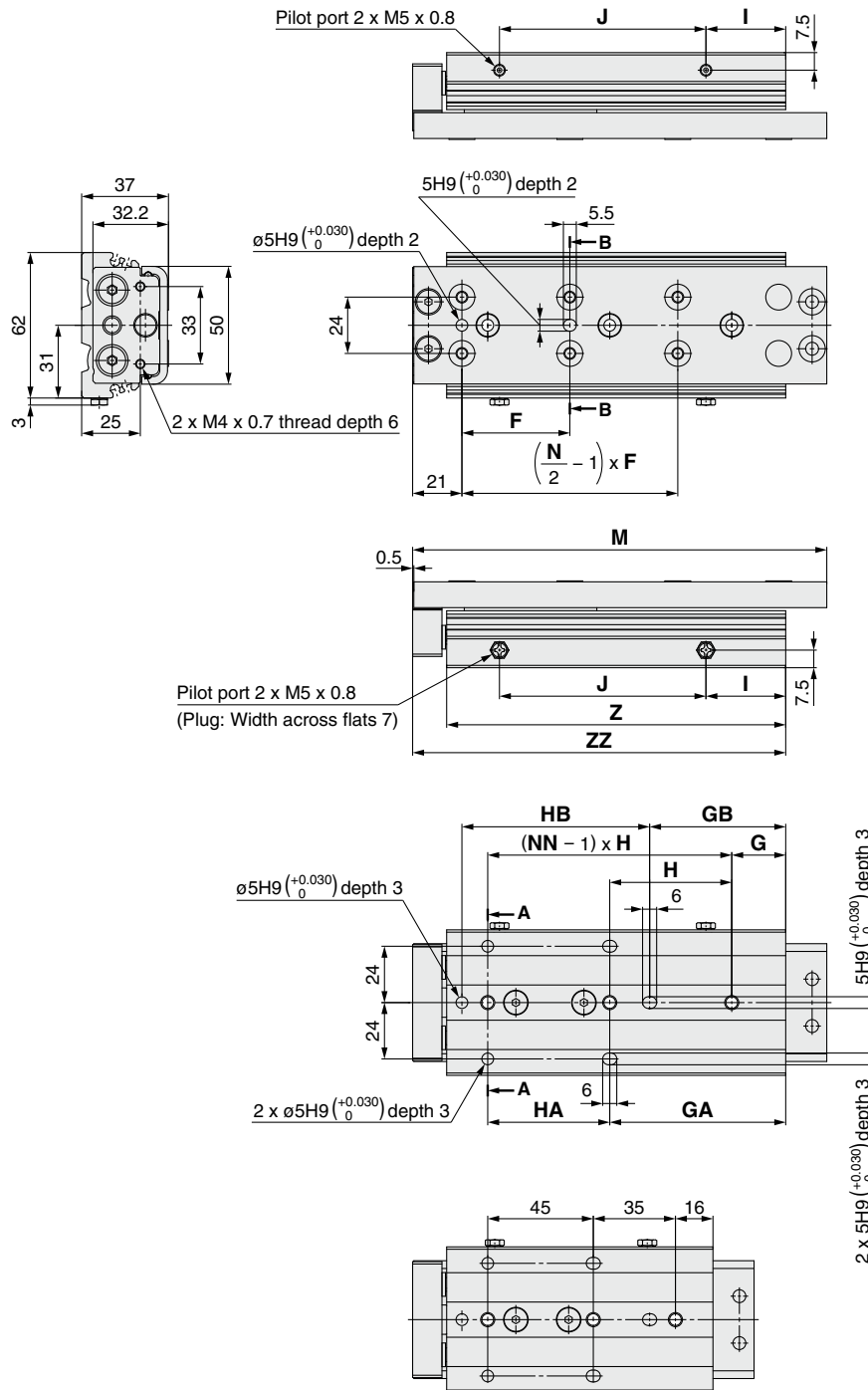
Model Selection



# MXQ Series

## Dimensions: MXQ **16** [Standard]

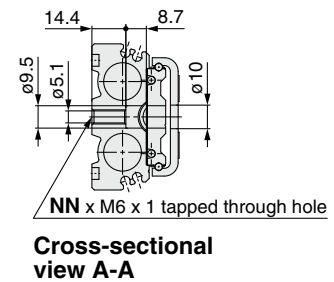
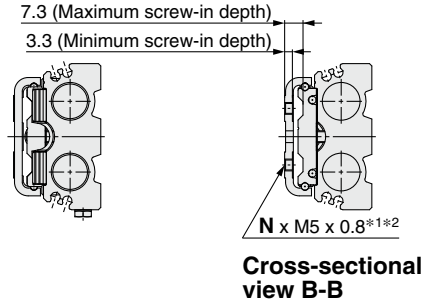
### MXQ 16-□Z Standard type



Bottom view of MXQ16-50Z

\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

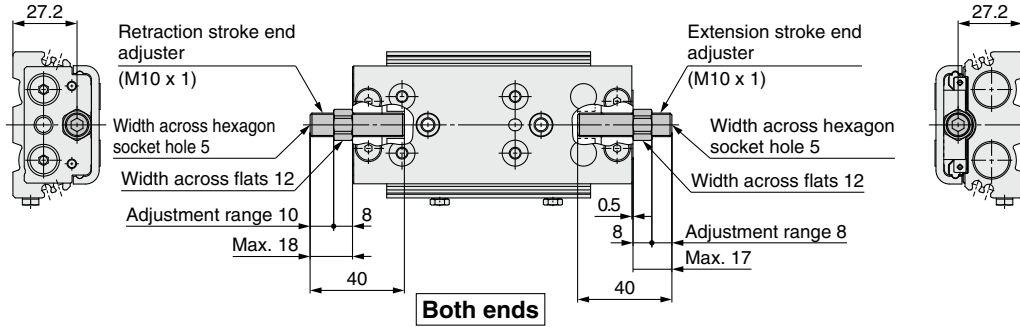
| Model      | F  | G  | GA  | GB  | H  | HA | HB | I  | J   | M     | N  | NN | Z     | ZZ  |
|------------|----|----|-----|-----|----|----|----|----|-----|-------|----|----|-------|-----|
| MXQ16-10Z  | 38 | 16 | 16  | 8   | 39 | 39 | 58 | 22 | 28  | 98.5  | 4  | 2  | 72.5  | 87  |
| MXQ16-20Z  | 38 | 20 | 20  | 12  | 39 | 39 | 58 | 15 | 39  | 108.5 | 4  | 2  | 76.5  | 91  |
| MXQ16-30Z  | 48 | 21 | 21  | 30  | 48 | 48 | 50 | 16 | 48  | 118.5 | 4  | 2  | 86.5  | 101 |
| MXQ16-40Z  | 58 | 28 | 28  | 17  | 58 | 58 | 80 | 23 | 58  | 135.5 | 4  | 2  | 103.5 | 118 |
| MXQ16-50Z  | 40 | —  | 51  | 27  | —  | 45 | 80 | 28 | 63  | 145.5 | 6  | 3  | 113.5 | 128 |
| MXQ16-75Z  | 46 | 23 | 75  | 58  | 52 | 52 | 80 | 34 | 88  | 176.5 | 6  | 3  | 144.5 | 159 |
| MXQ16-100Z | 44 | 39 | 83  | 102 | 44 | 88 | 80 | 53 | 113 | 220.5 | 8  | 4  | 188.5 | 203 |
| MXQ16-125Z | 44 | 20 | 108 | 127 | 44 | 88 | 80 | 53 | 138 | 245.5 | 10 | 5  | 213.5 | 228 |

# Dimensions: MXQ **16** [Adjuster Option]

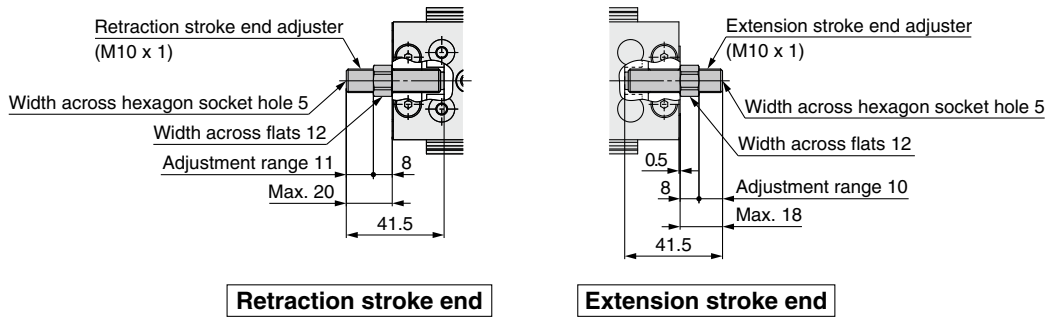
## MXQ 16-□ □ With adjuster option (∅16)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

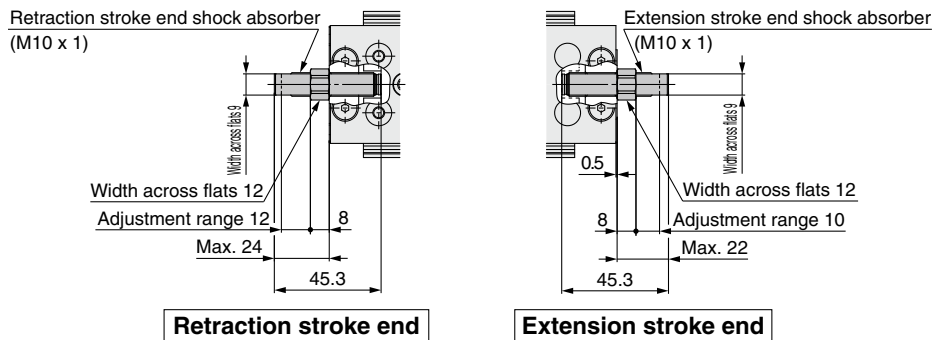
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



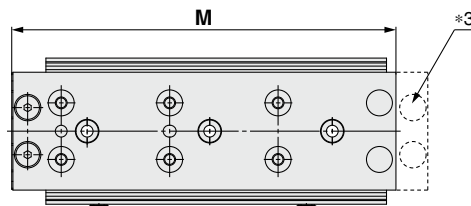
Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)



Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



## MXQ 16-□ ZN Shorter total length type



| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ16-10ZN      | 85  |
| MXQ16-20ZN      | 95  |
| MXQ16-30ZN      | 105 |
| MXQ16-40ZN      | 122 |
| MXQ16-50ZN      | 132 |
| MXQ16-75ZN      | 163 |
| MXQ16-100ZN     | 207 |
| MXQ16-125ZN     | 232 |

\* Dimensions other than those listed above are the same as those for the standard type.

\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

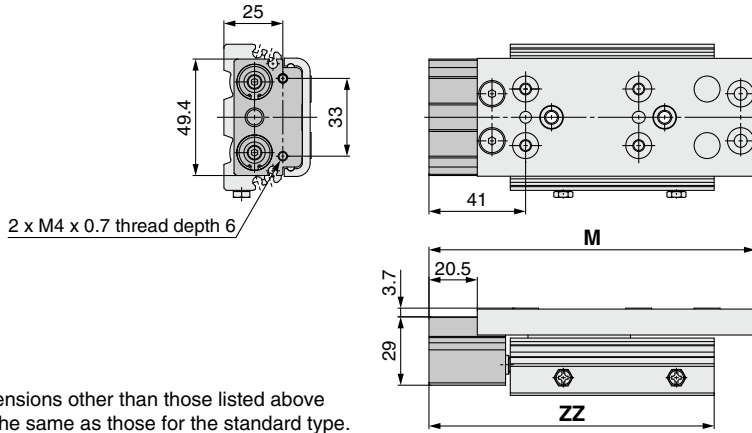
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **16** [Functional Option]

### MXQ 16-□□1 With buffer (ø16)

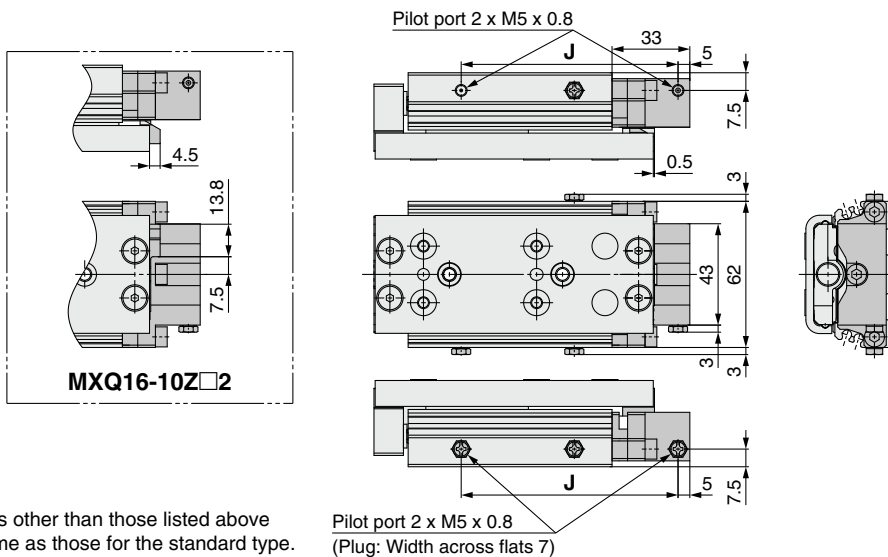


Dimensions [mm]

| Model        | Standard type | Shorter total length type | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | M                         |     |
| MXQ16-10Z□1  | 118.5         | 105                       | 107 |
| MXQ16-20Z□1  | 128.5         | 115                       | 111 |
| MXQ16-30Z□1  | 138.5         | 125                       | 121 |
| MXQ16-40Z□1  | 155.5         | 142                       | 138 |
| MXQ16-50Z□1  | 165.5         | 152                       | 148 |
| MXQ16-75Z□1  | 196.5         | 183                       | 179 |
| MXQ16-100Z□1 | 240.5         | 227                       | 223 |
| MXQ16-125Z□1 | 265.5         | 252                       | 248 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 16-□□2 With end lock (ø16)



Dimensions [mm]

| Model        | J   |
|--------------|-----|
| MXQ16-10Z□2  | 78  |
| MXQ16-20Z□2  | 82  |
| MXQ16-30Z□2  | 92  |
| MXQ16-40Z□2  | 109 |
| MXQ16-50Z□2  | 119 |
| MXQ16-75Z□2  | 150 |
| MXQ16-100Z□2 | 194 |
| MXQ16-125Z□2 | 219 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 16-□□2 With end lock, extension stroke end adjuster (ø16)

Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT16-X28     | MXQA-A1687-X11                    |
| Rubber stopper: ZE            | MXQA-AT16-X28     | MXQA-A1627-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT16-X28     | RJ1006U-X2300                     |
| Metal stopper: ZL             | MXQA-DT16-X28     | MXQA-A1638-X11                    |

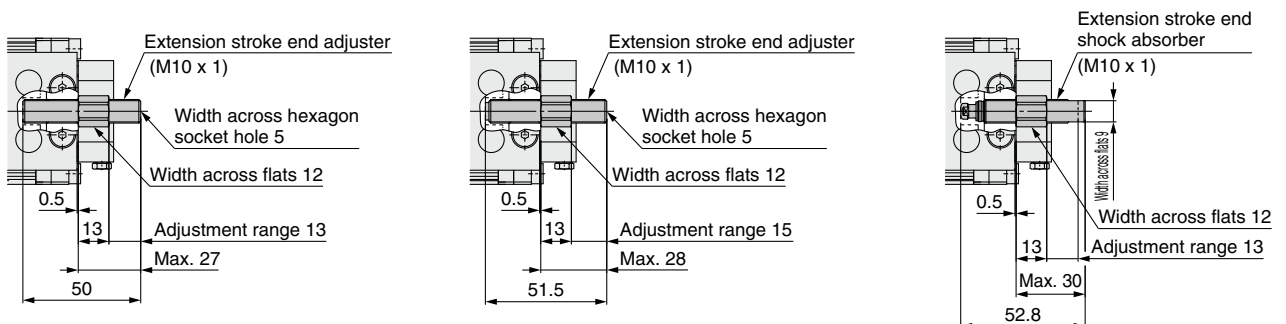
\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

#### Metal stopper with bumper: **ZB**

#### Metal stopper: **ZL**

#### Rubber stopper: **ZE**

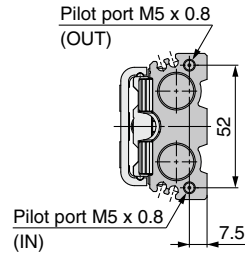
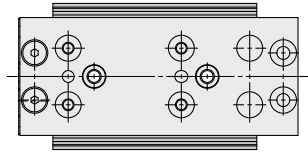
#### Shock absorber/RJ: **ZH**



\* Dimensions other than those listed above are the same as those for the standard type.

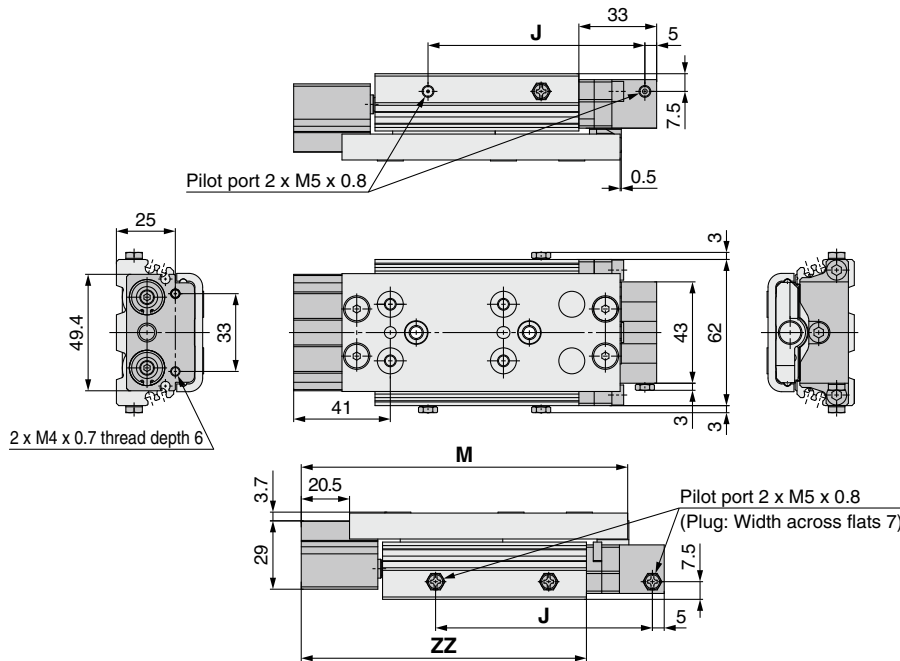
# Dimensions: MXQ **16** [Functional Option]

## MXQ 16-□□3 Axial piping (ø16)

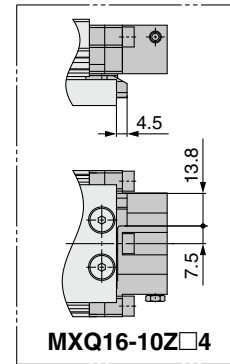


\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 16-□□4 With buffer, end lock (ø16)



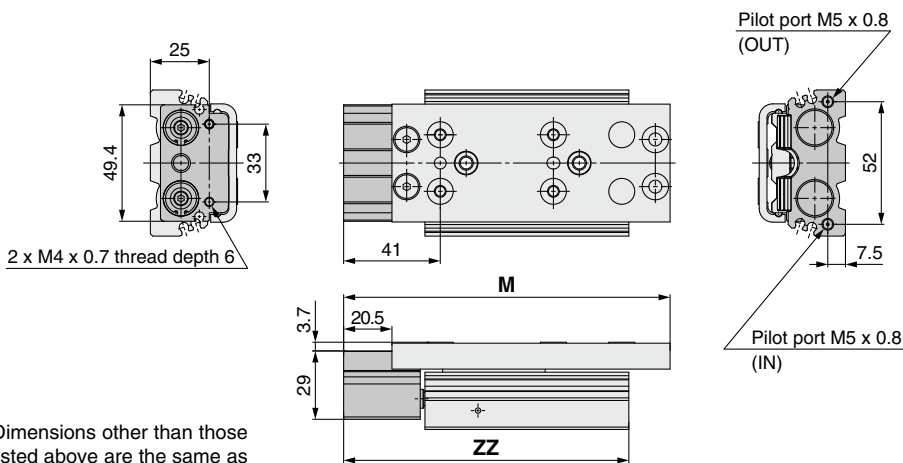
\* Dimensions other than those listed above are the same as those for the standard type.



**Dimensions**

| Model        | J   | Standard type |                           | ZZ  |
|--------------|-----|---------------|---------------------------|-----|
|              |     | M             | Shorter total length type |     |
| MXQ16-10Z□4  | 78  | 118.5         | 105                       | 107 |
| MXQ16-20Z□4  | 82  | 128.5         | 115                       | 111 |
| MXQ16-30Z□4  | 92  | 138.5         | 125                       | 121 |
| MXQ16-40Z□4  | 109 | 155.5         | 142                       | 138 |
| MXQ16-50Z□4  | 119 | 165.5         | 152                       | 148 |
| MXQ16-75Z□4  | 150 | 196.5         | 183                       | 179 |
| MXQ16-100Z□4 | 194 | 240.5         | 227                       | 223 |
| MXQ16-125Z□4 | 219 | 265.5         | 252                       | 248 |

## MXQ 16-□□5 With buffer, axial piping (ø16)



\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions**

| Model        | Standard type |                           | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | Shorter total length type |     |
| MXQ16-10Z□5  | 118.5         | 105                       | 107 |
| MXQ16-20Z□5  | 128.5         | 115                       | 111 |
| MXQ16-30Z□5  | 138.5         | 125                       | 121 |
| MXQ16-40Z□5  | 155.5         | 142                       | 138 |
| MXQ16-50Z□5  | 165.5         | 152                       | 148 |
| MXQ16-75Z□5  | 196.5         | 183                       | 179 |
| MXQ16-100Z□5 | 240.5         | 227                       | 223 |
| MXQ16-125Z□5 | 265.5         | 252                       | 248 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

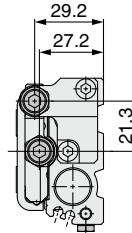
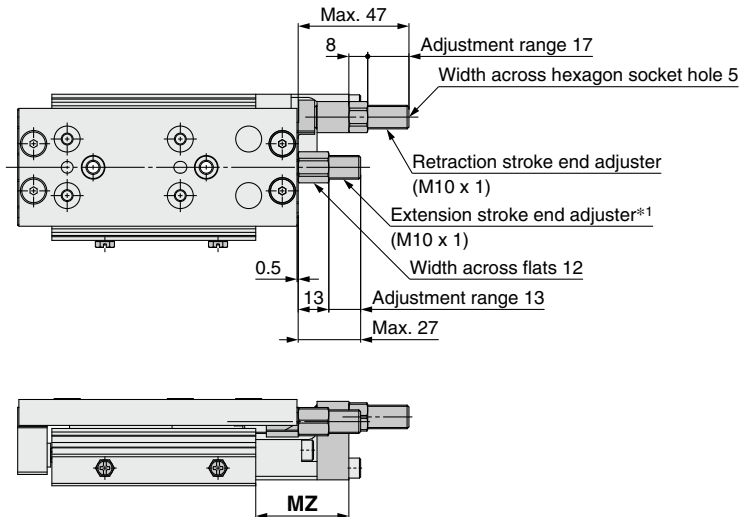
## Dimensions: MXQ **16** [Functional Option]

### MXQ 16-□□6 Centralized adjuster (ø16)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

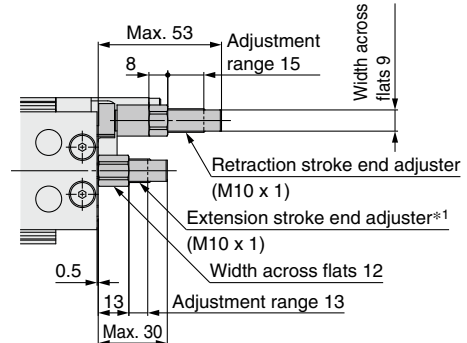
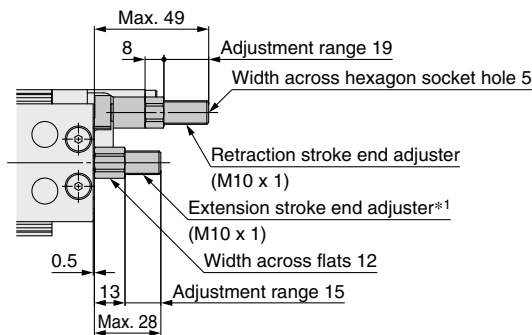
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ16-10Z□6     | 33.5 |
| MXQ16-20Z□6     | 39.5 |
| MXQ16-30Z□6     |      |
| MXQ16-40Z□6     |      |
| MXQ16-50Z□6     |      |
| MXQ16-75Z□6     |      |
| MXQ16-100Z□6    |      |
| MXQ16-125Z□6    |      |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

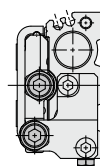
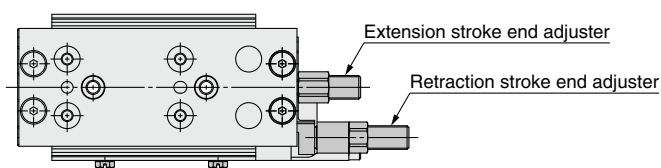


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ 16-□□7 Centralized adjuster / Symmetric type (ø16)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



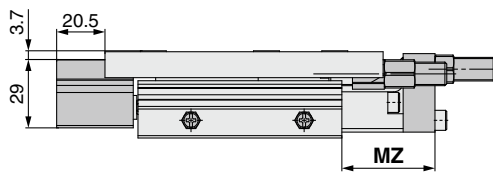
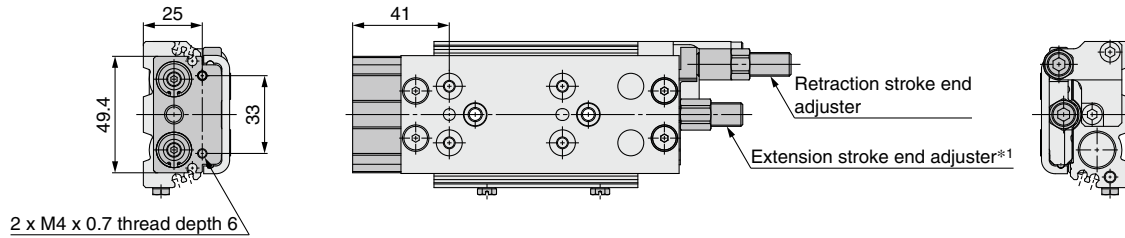
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

# Dimensions: MXQ **16** [Functional Option]

## MXQ 16-□□8 Buffer, Centralized adjuster (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

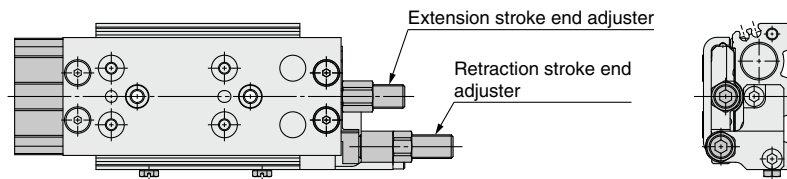


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ16-10Z□8     | 33.5 |
| MXQ16-20Z□8     | 39.5 |
| MXQ16-30Z□8     |      |
| MXQ16-40Z□8     |      |
| MXQ16-50Z□8     |      |
| MXQ16-75Z□8     |      |
| MXQ16-100Z□8    |      |
| MXQ16-125Z□8    |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

## MXQ 16-□□9 Buffer, Centralized adjuster / Symmetric type (ø16)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

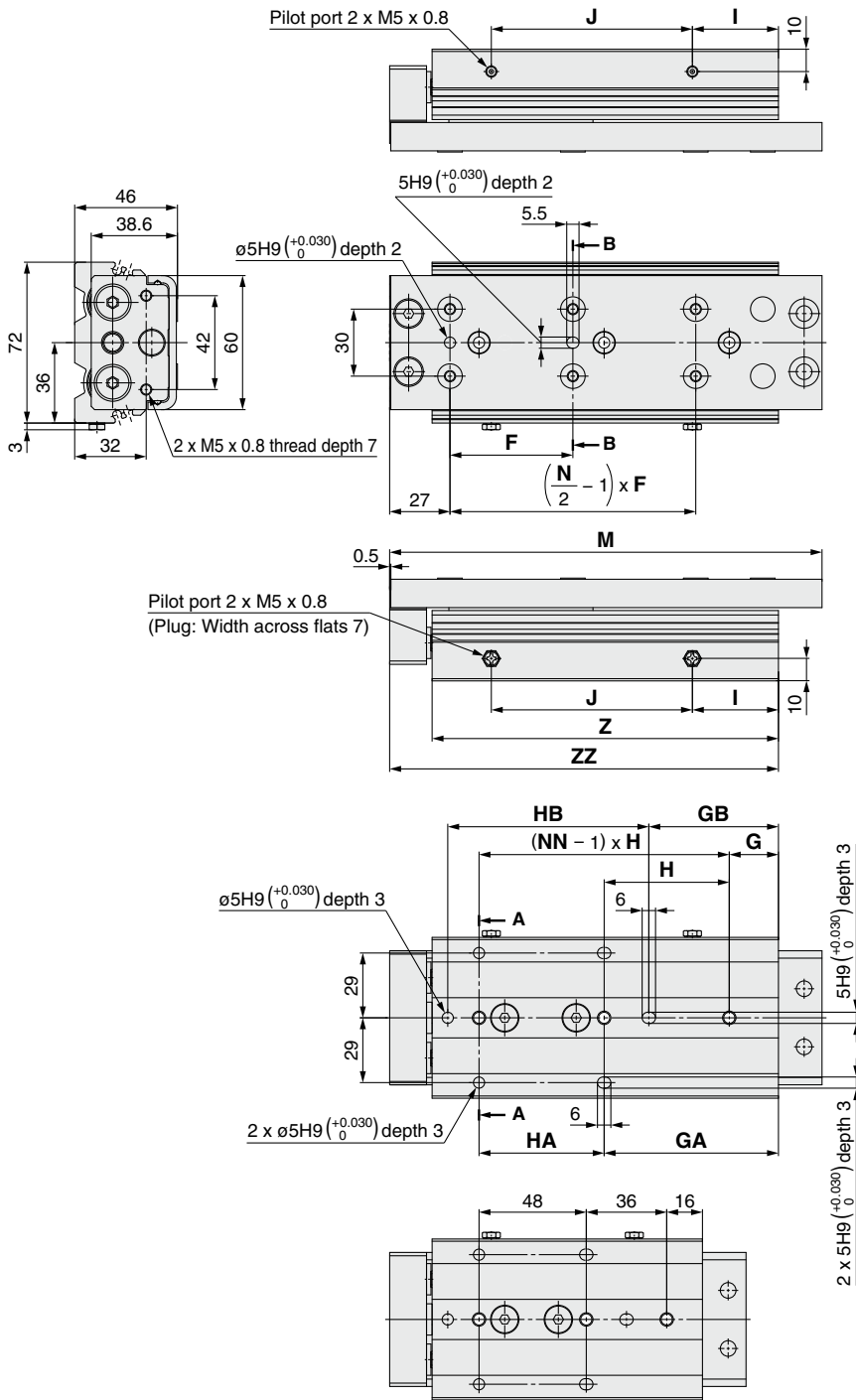
Made to Order

Model Selection

# MXQ Series

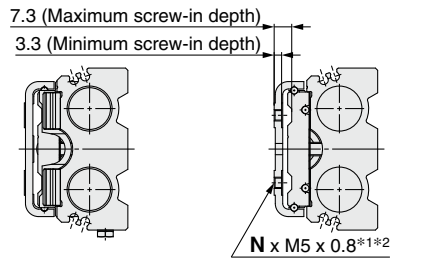
## Dimensions: MXQ **20** [Standard]

### MXQ **20**-□**Z** Standard type

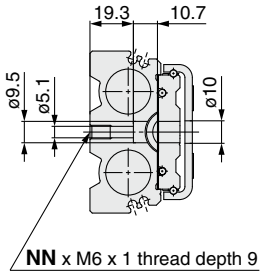


Bottom view of MXQ20-50Z

- \*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.
- \*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



Cross-sectional view B-B



Cross-sectional view A-A

### Dimensions

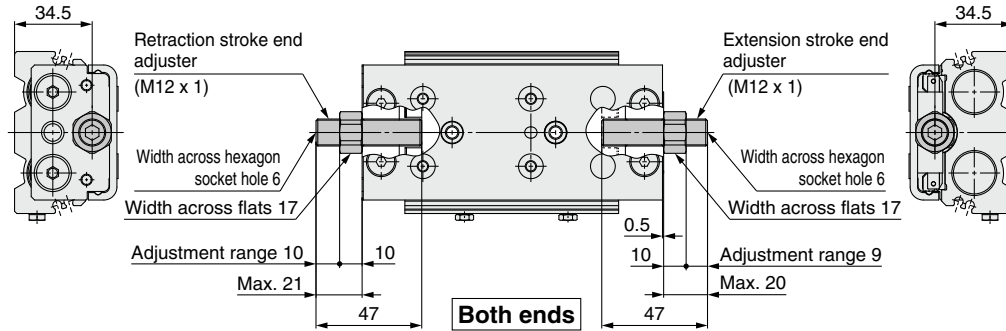
| Model      | F  | G  | GA  | GB  | H  | HA  | HB | I    | J   | M     | N | NN | Z   | ZZ  |
|------------|----|----|-----|-----|----|-----|----|------|-----|-------|---|----|-----|-----|
| MXQ20-10Z  | 45 | 18 | 14  | 8   | 46 | 50  | 70 | 24.5 | 34  | 113.5 | 4 | 2  | 85  | 104 |
| MXQ20-20Z  | 40 | 18 | 14  | 8   | 46 | 50  | 70 | 24.5 | 34  | 123.5 | 4 | 2  | 85  | 104 |
| MXQ20-30Z  | 48 | 28 | 24  | 18  | 46 | 50  | 70 | 22.5 | 46  | 133.5 | 4 | 2  | 95  | 114 |
| MXQ20-40Z  | 58 | 28 | 28  | 18  | 56 | 56  | 80 | 22.5 | 56  | 143.5 | 4 | 2  | 105 | 124 |
| MXQ20-50Z  | 42 | —  | 52  | 34  | —  | 48  | 80 | 30.5 | 64  | 159.5 | 6 | 3  | 121 | 140 |
| MXQ20-75Z  | 55 | 22 | 78  | 58  | 56 | 56  | 90 | 38.5 | 90  | 193.5 | 6 | 3  | 155 | 174 |
| MXQ20-100Z | 50 | 16 | 72  | 108 | 56 | 112 | 90 | 63.5 | 115 | 266.5 | 8 | 4  | 205 | 224 |
| MXQ20-125Z | 55 | 32 | 91  | 133 | 59 | 118 | 90 | 63.5 | 140 | 291.5 | 8 | 4  | 230 | 249 |
| MXQ20-150Z | 62 | 48 | 110 | 158 | 62 | 124 | 90 | 63.5 | 165 | 316.5 | 8 | 4  | 255 | 274 |



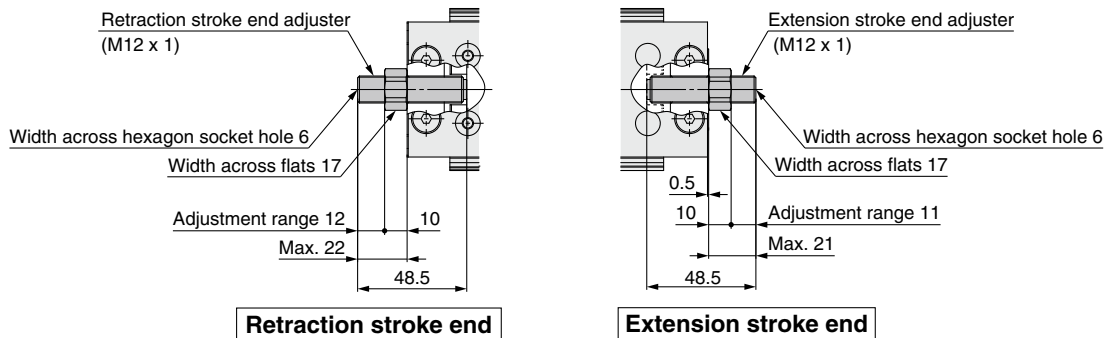
# Dimensions: MXQ **20** [Adjuster Option]

## MXQ 20-□ □ With adjuster option (ø20)

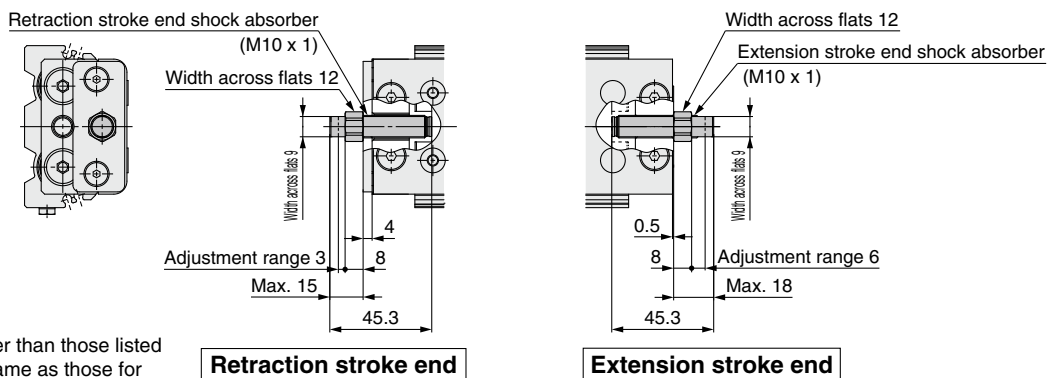
Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)  
 Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

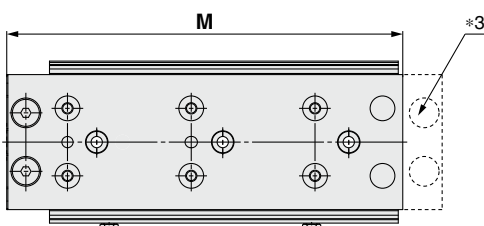


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 20-□ **ZN** Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ20-10ZN      | 96  |
| MXQ20-20ZN      | 106 |
| MXQ20-30ZN      | 116 |
| MXQ20-40ZN      | 126 |
| MXQ20-50ZN      | 142 |
| MXQ20-75ZN      | 176 |
| MXQ20-100ZN     | 249 |
| MXQ20-125ZN     | 274 |
| MXQ20-150ZN     | 299 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

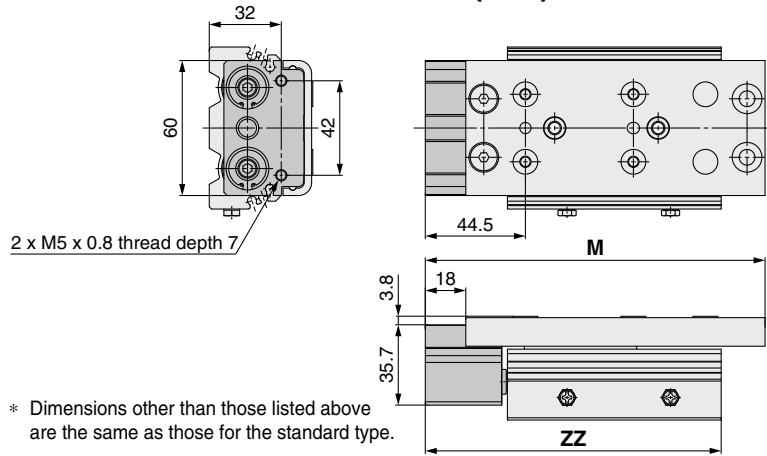
Made to Order

Model Selection

# MXQ Series

## Dimensions: MXQ **20** [Functional Option]

### MXQ 20-□□1 With buffer (ø20)

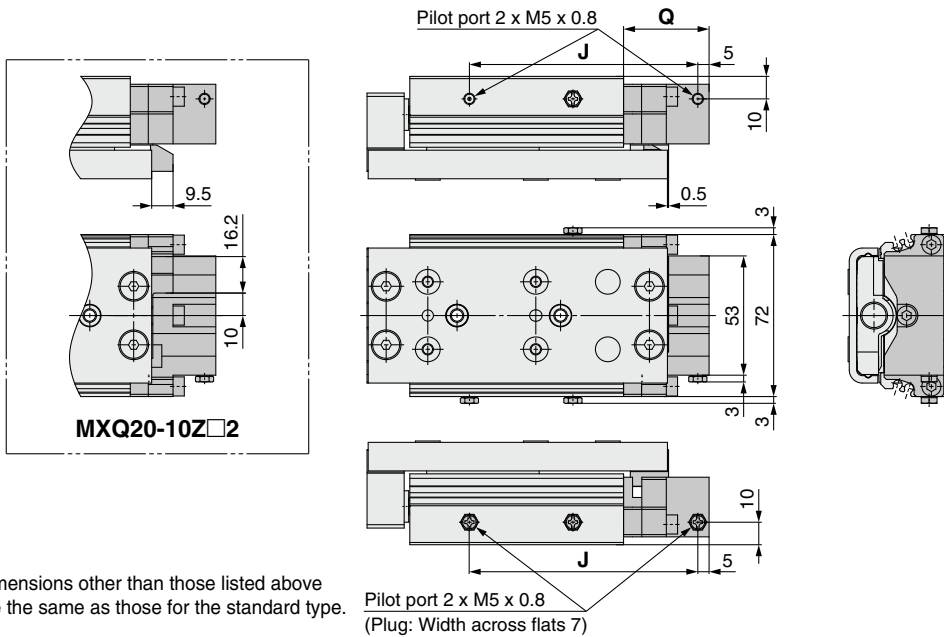


\* Dimensions other than those listed above are the same as those for the standard type.

### Dimensions

| Model        | Standard type |                             | ZZ    |
|--------------|---------------|-----------------------------|-------|
|              | M             | Shorter total length type M |       |
| MXQ20-10Z□1  | 131           | 113.5                       | 121.5 |
| MXQ20-20Z□1  | 141           | 123.5                       |       |
| MXQ20-30Z□1  | 151           | 133.5                       | 131.5 |
| MXQ20-40Z□1  | 161           | 143.5                       | 141.5 |
| MXQ20-50Z□1  | 177           | 159.5                       | 157.5 |
| MXQ20-75Z□1  | 211           | 193.5                       | 191.5 |
| MXQ20-100Z□1 | 284           | 266.5                       | 241.5 |
| MXQ20-125Z□1 | 309           | 291.5                       | 266.5 |
| MXQ20-150Z□1 | 334           | 316.5                       | 291.5 |

### MXQ 20-□□2 With end lock (ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

Pilot port 2 x M5 x 0.8  
(Plug: Width across flats 7)

### Dimensions

| Model        | Standard type |    |
|--------------|---------------|----|
|              | J             | Q  |
| MXQ20-10Z□2  | 38            | 61 |
| MXQ20-20Z□2  |               |    |
| MXQ20-30Z□2  |               |    |
| MXQ20-40Z□2  |               |    |
| MXQ20-50Z□2  |               |    |
| MXQ20-75Z□2  | 61            | 61 |
| MXQ20-100Z□2 |               |    |
| MXQ20-125Z□2 |               |    |
| MXQ20-150Z□2 |               |    |

### MXQ 20-□□2 With end lock, extension stroke end adjuster (ø20)

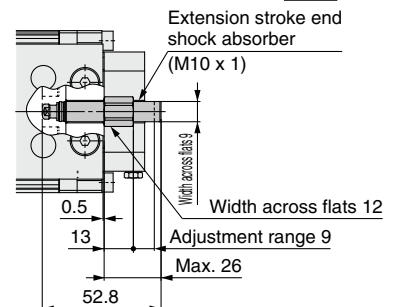
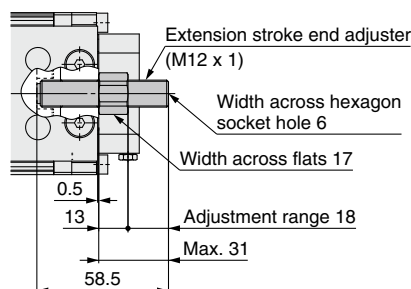
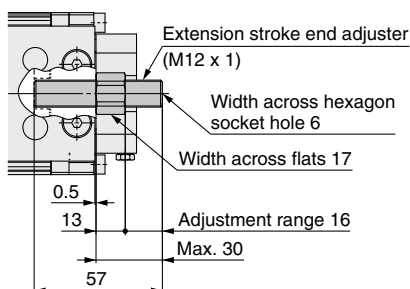
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

**Metal stopper with bumper: ZB**

**Metal stopper: ZL**

**Rubber stopper: ZE**

**Shock absorber/RJ: ZH**



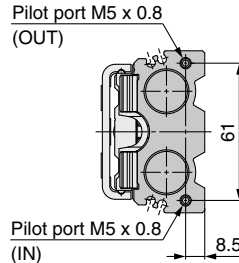
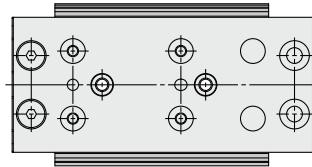
\* Dimensions other than those listed above are the same as those for the standard type.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT20-X28     | MXQA-A208-X11                     |
| Rubber stopper: ZE            | MXQA-AT20-X28     | MXQA-A2027-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT20-X28     | RJ1007HU-X2300                    |
| Metal stopper: ZL             | MXQA-DT20-X28     | MXQA-A2038-X11                    |

\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

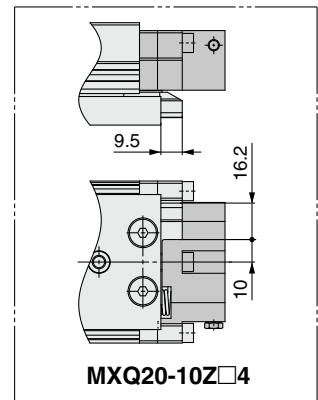
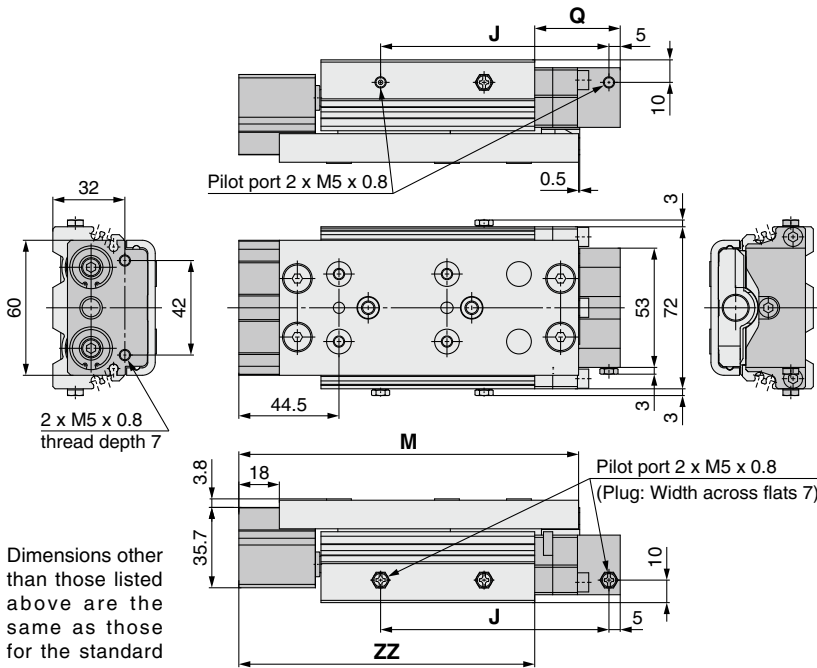
Dimensions: MXQ **20** [Functional Option]

MXQ 20-□□3 Axial piping (ø20)



\* Dimensions other than those listed above are the same as those for the standard type.

MXQ 20-□□4 With buffer, end lock (ø20)

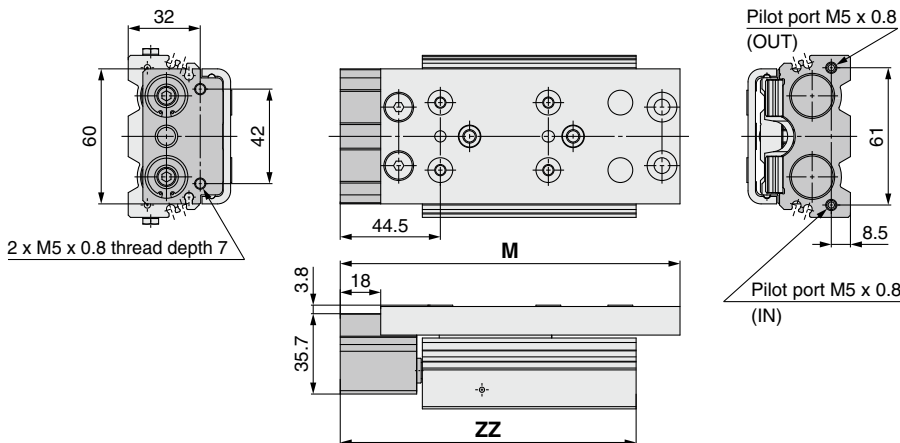


Dimensions [mm]

| Model        | J     | Q  | Standard type | Shorter total length type | ZZ    |
|--------------|-------|----|---------------|---------------------------|-------|
|              |       |    | M             | M                         |       |
| MXQ20-10Z□4  | 91.5  | 38 | 131           | 113.5                     | 121.5 |
| MXQ20-20Z□4  |       |    | 141           | 123.5                     |       |
| MXQ20-30Z□4  | 101.5 |    | 151           | 133.5                     | 131.5 |
| MXQ20-40Z□4  | 111.5 |    | 161           | 143.5                     | 141.5 |
| MXQ20-50Z□4  | 127.5 |    | 177           | 159.5                     | 157.5 |
| MXQ20-75Z□4  | 161.5 |    | 211           | 193.5                     | 191.5 |
| MXQ20-100Z□4 | 234.5 | 61 | 284           | 266.5                     | 241.5 |
| MXQ20-125Z□4 | 259.5 |    | 309           | 291.5                     | 266.5 |
| MXQ20-150Z□4 | 284.5 |    | 334           | 316.5                     | 291.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

MXQ 20-□□5 With buffer, axial piping (ø20)



Dimensions [mm]

| Model        | Standard type | Shorter total length type | ZZ    |
|--------------|---------------|---------------------------|-------|
|              | M             | M                         |       |
| MXQ20-10Z□5  | 131           | 113.5                     | 121.5 |
| MXQ20-20Z□5  | 141           | 123.5                     |       |
| MXQ20-30Z□5  | 151           | 133.5                     | 131.5 |
| MXQ20-40Z□5  | 161           | 143.5                     | 141.5 |
| MXQ20-50Z□5  | 177           | 159.5                     | 157.5 |
| MXQ20-75Z□5  | 211           | 193.5                     | 191.5 |
| MXQ20-100Z□5 | 284           | 266.5                     | 241.5 |
| MXQ20-125Z□5 | 309           | 291.5                     | 266.5 |
| MXQ20-150Z□5 | 334           | 316.5                     | 291.5 |

\* Dimensions other than those listed above are the same as those for the standard type.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

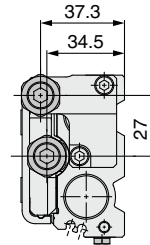
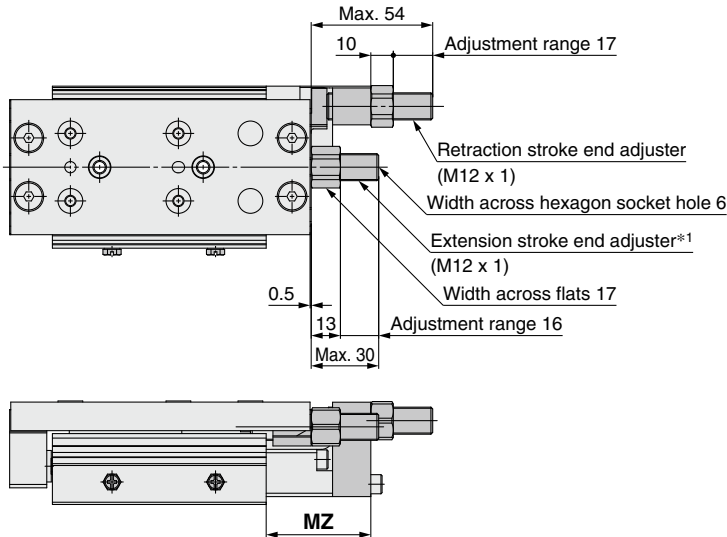
## Dimensions: MXQ **20** [Functional Option]

### MXQ 20-□□6 Centralized adjuster (ø20)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

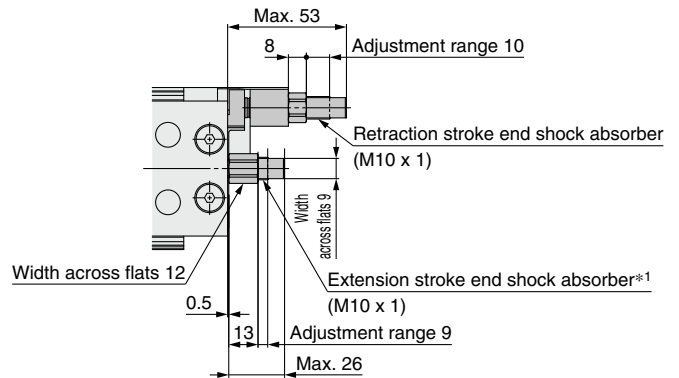
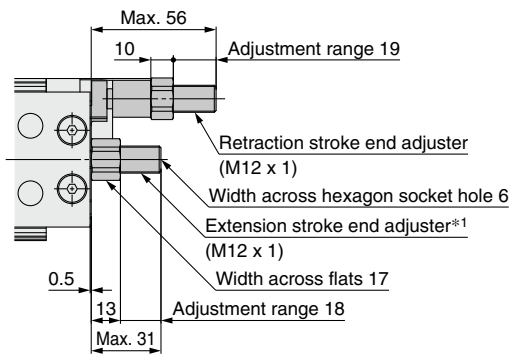
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ20-10Z□6     | 36.5 |
| MXQ20-20Z□6     | 46.5 |
| MXQ20-30Z□6     |      |
| MXQ20-40Z□6     |      |
| MXQ20-50Z□6     |      |
| MXQ20-75Z□6     | 69.5 |
| MXQ20-100Z□6    |      |
| MXQ20-125Z□6    |      |
| MXQ20-150Z□6    |      |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end

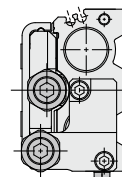
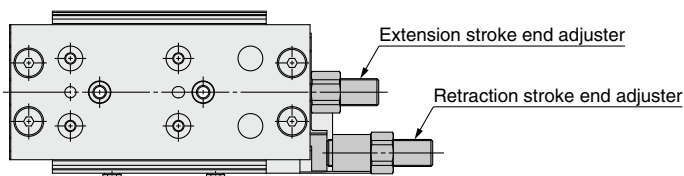


\* Dimensions other than those listed above are the same as those for the standard type.

\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

### MXQ 20-□□7 Centralized adjuster / Symmetric type (ø20)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.



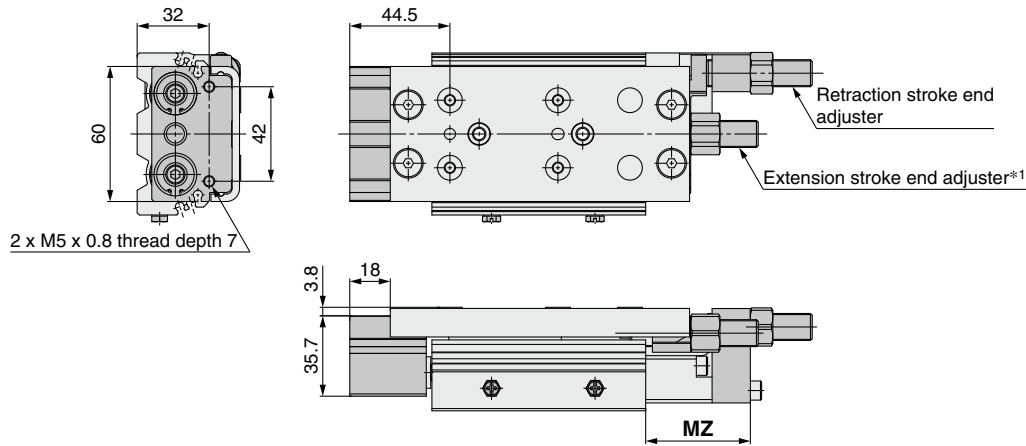
\* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

# Dimensions: MXQ **20** [Functional Option]

## MXQ 20-□□8 Buffer, Centralized adjuster (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

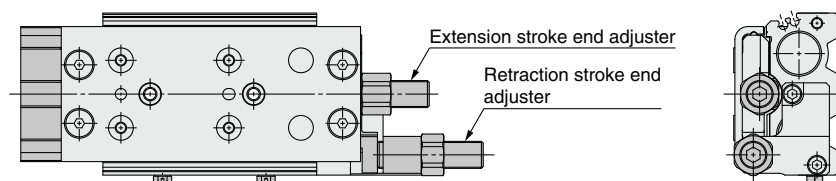


| Dimensions [mm] |      |
|-----------------|------|
| Model           | MZ   |
| MXQ20-10Z□8     | 36.5 |
| MXQ20-20Z□8     |      |
| MXQ20-30Z□8     |      |
| MXQ20-40Z□8     | 46.5 |
| MXQ20-50Z□8     |      |
| MXQ20-75Z□8     |      |
| MXQ20-100Z□8    | 69.5 |
| MXQ20-125Z□8    |      |
| MXQ20-150Z□8    |      |

- \* Dimensions other than those listed above are the same as those for the standard type.
- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

## MXQ 20-□□9 Buffer, Centralized adjuster / Symmetric type (ø20)

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



- \* In the case of a short stroke, there are some places where an auto switch cannot be mounted. For details, refer to page 126.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

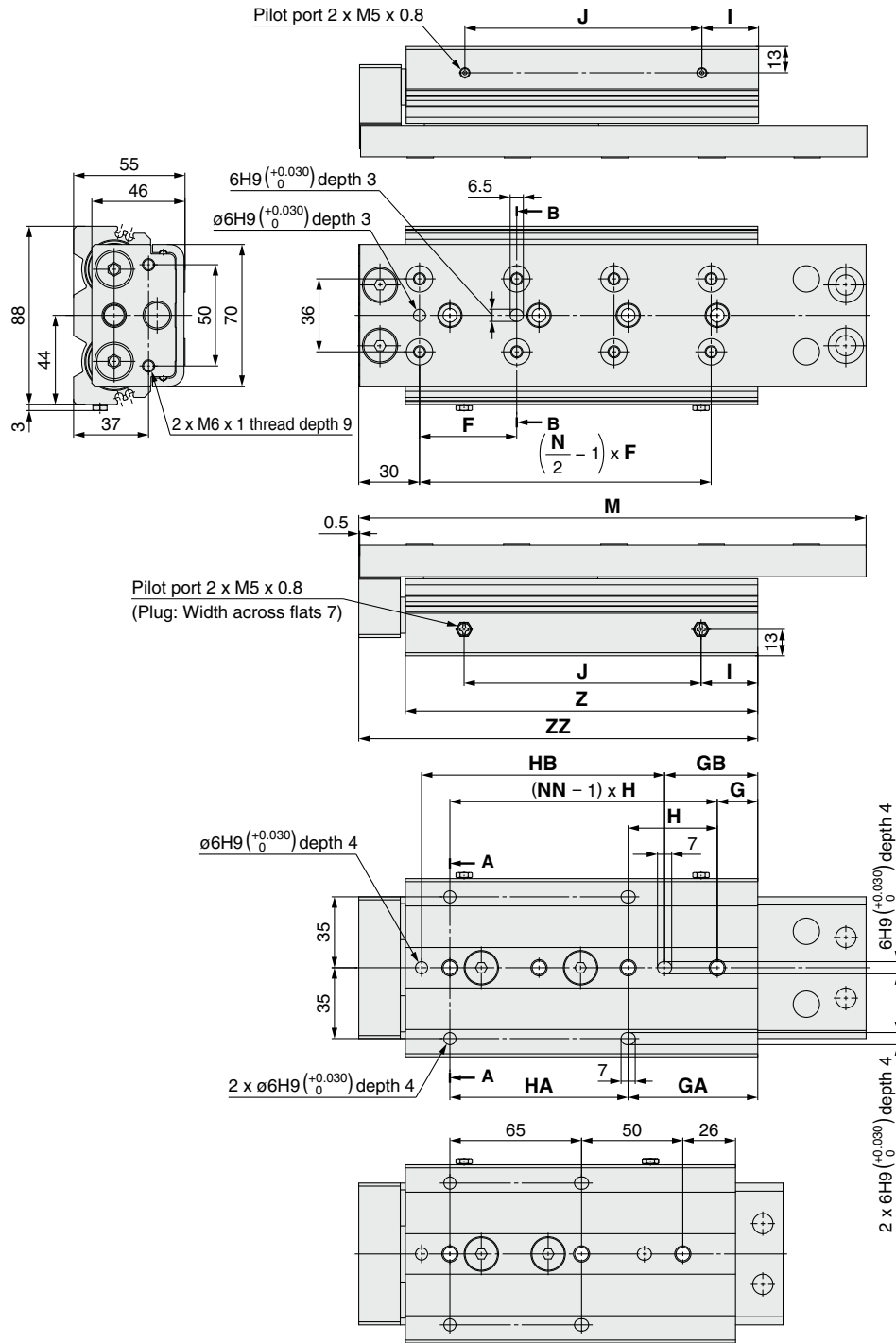
Made to Order

Model Selection

# MXQ Series

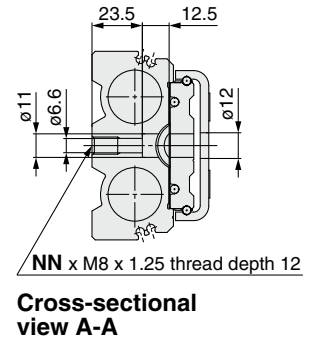
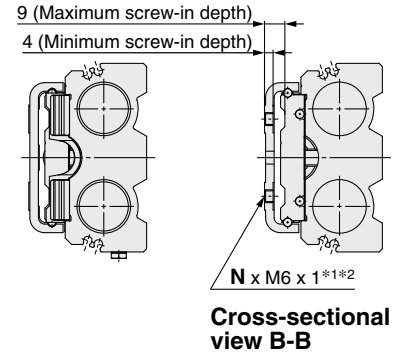
## Dimensions: MXQ **25** [Standard]

### MXQ 25-□Z Standard type



\*1 If long bolts are used, they may touch the guide block and cause a malfunction, etc. Use a screw which has an intermediate length between the maximum screw-in depth and minimum screw-in depth. Refer to page 196 for details.

\*2 Since the table is made of a magnetic substance, it could become magnetized if touched by a magnet, etc. This could cause an auto switch malfunction.



### Dimensions

Bottom view of MXQ25-75Z

| Model      | F  | G  | GA  | GB | H  | HA  | HB  | I  | J   | M     | N | NN | Z   | ZZ  |
|------------|----|----|-----|----|----|-----|-----|----|-----|-------|---|----|-----|-----|
| MXQ25-10Z  | 55 | 18 | 18  | 7  | 55 | 55  | 80  | 30 | 36  | 131.5 | 4 | 2  | 95  | 118 |
| MXQ25-20Z  | 46 | 18 | 18  | 7  | 55 | 55  | 80  | 30 | 36  | 141.5 | 4 | 2  | 95  | 118 |
| MXQ25-30Z  | 55 | 28 | 28  | 17 | 55 | 55  | 80  | 22 | 54  | 151.5 | 4 | 2  | 105 | 128 |
| MXQ25-40Z  | 65 | 28 | 28  | 17 | 65 | 65  | 90  | 22 | 64  | 161.5 | 4 | 2  | 115 | 138 |
| MXQ25-50Z  | 75 | 36 | 36  | 20 | 80 | 80  | 110 | 43 | 66  | 184.5 | 4 | 2  | 138 | 161 |
| MXQ25-75Z  | 60 | —  | 76  | 45 | —  | 65  | 110 | 42 | 92  | 209.5 | 6 | 3  | 163 | 186 |
| MXQ25-100Z | 48 | 20 | 64  | 46 | 44 | 88  | 120 | 28 | 117 | 250.5 | 8 | 4  | 174 | 197 |
| MXQ25-125Z | 60 | 18 | 84  | 60 | 66 | 132 | 170 | 67 | 142 | 314.5 | 8 | 4  | 238 | 261 |
| MXQ25-150Z | 65 | 43 | 109 | 85 | 66 | 132 | 170 | 66 | 168 | 339.5 | 8 | 4  | 263 | 286 |

# Dimensions: MXQ **25** [Adjuster Option]

## MXQ 25-□ □ With adjuster option (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end, **ZS**: Retraction stroke end (Shorter total length type)

Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end, **ZT**: Retraction stroke end (Shorter total length type)

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

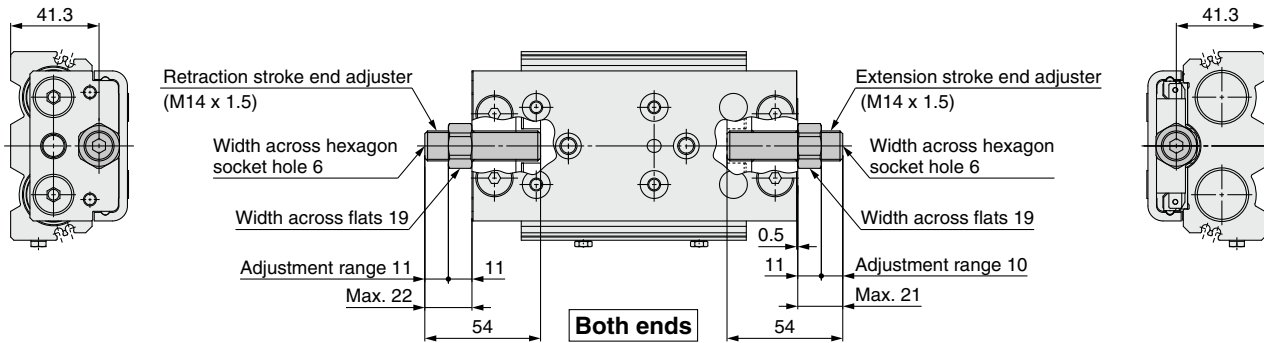
Height interchangeable type  
MXQ□

Common Adjuster Options

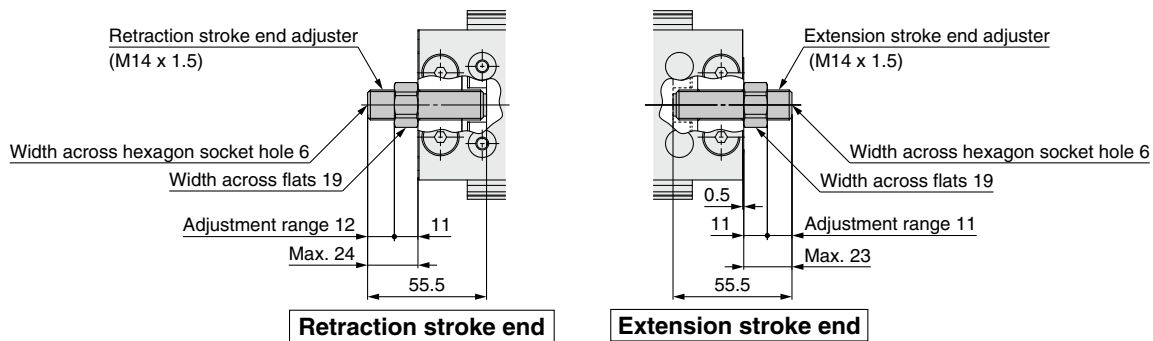
Auto Switch Mounting

Made to Order

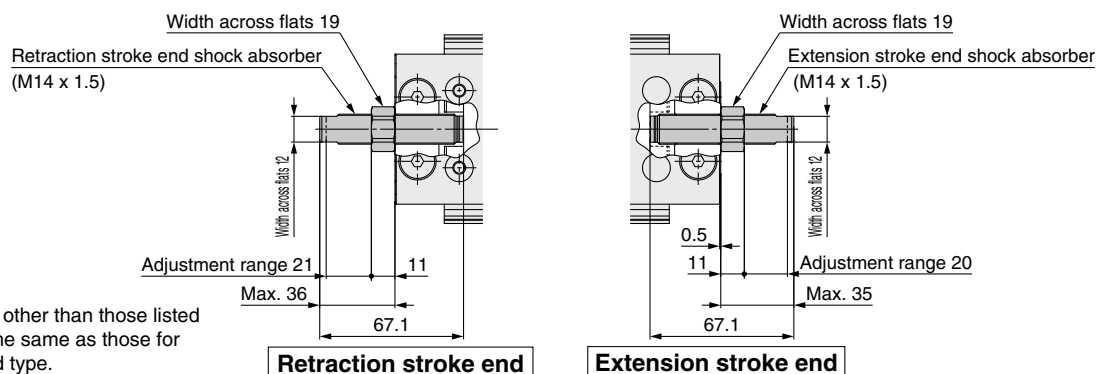
Model Selection



Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end, **ZP**: Retraction stroke end (Shorter total length type)

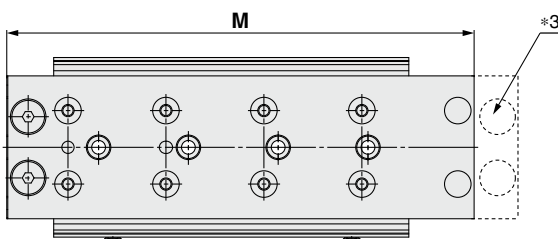


Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end, **ZQ**: Retraction stroke end (Shorter total length type)



\* Dimensions other than those listed above are the same as those for the standard type.

## MXQ 25-□ ZN Shorter total length type



\*3 As the total length has been reduced by removing the extension stroke end adjuster mounting holes, an extension stroke end adjuster cannot be mounted afterward. (Retraction stroke end adjusters can be mounted afterward.)

\* Dimensions other than those listed above are the same as those for the standard type.

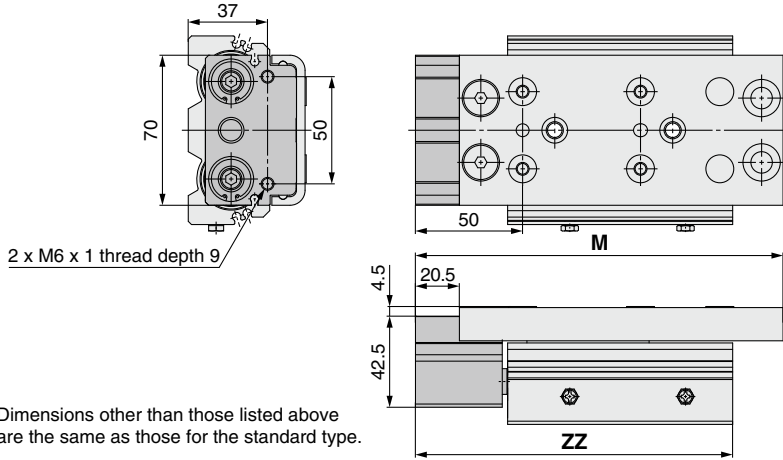
| Dimensions [mm] |     |
|-----------------|-----|
| Model           | M   |
| MXQ25-10ZN      | 110 |
| MXQ25-20ZN      | 120 |
| MXQ25-30ZN      | 130 |
| MXQ25-40ZN      | 140 |
| MXQ25-50ZN      | 163 |
| MXQ25-75ZN      | 188 |
| MXQ25-100ZN     | 229 |
| MXQ25-125ZN     | 293 |
| MXQ25-150ZN     | 318 |



# MXQ Series

## Dimensions: MXQ **25** [Functional Option]

### MXQ 25-□□1 With buffer (ø25)

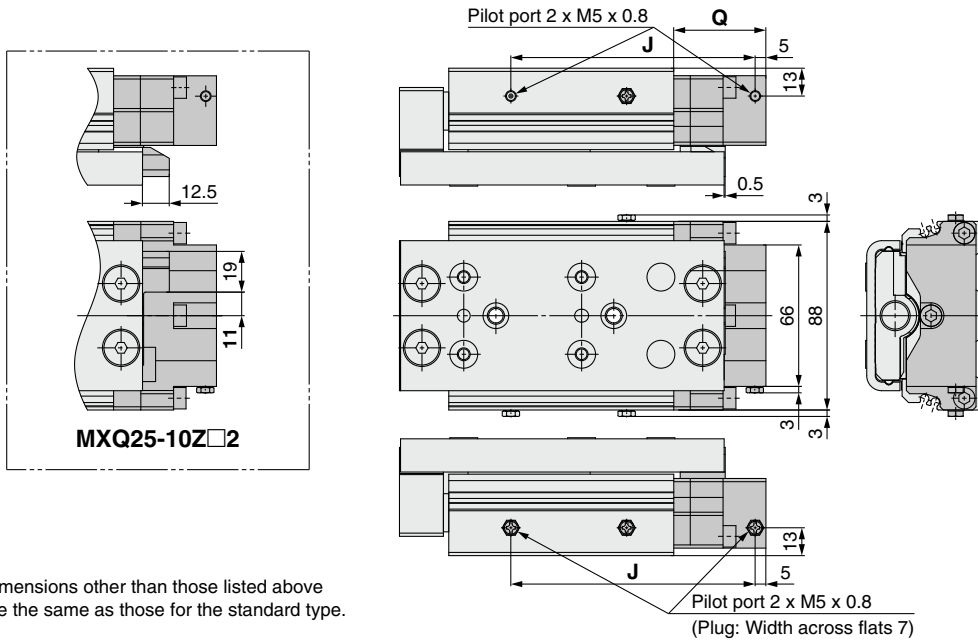


#### Dimensions

| Model        | Standard type |                           | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | Shorter total length type |     |
| MXQ25-10Z□1  | 151.5         | 130                       | 138 |
| MXQ25-20Z□1  | 161.5         | 140                       | 148 |
| MXQ25-30Z□1  | 171.5         | 150                       | 158 |
| MXQ25-40Z□1  | 181.5         | 160                       | 168 |
| MXQ25-50Z□1  | 204.5         | 183                       | 181 |
| MXQ25-75Z□1  | 229.5         | 208                       | 206 |
| MXQ25-100Z□1 | 270.5         | 249                       | 217 |
| MXQ25-125Z□1 | 334.5         | 313                       | 281 |
| MXQ25-150Z□1 | 359.5         | 338                       | 306 |

\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 25-□□2 With end lock (ø25)



#### Dimensions

| Model        | J   |    | Q |
|--------------|-----|----|---|
|              | J   | Q  |   |
| MXQ25-10Z□2  | 109 | 48 |   |
| MXQ25-20Z□2  | 104 | 43 |   |
| MXQ25-30Z□2  | 114 | 43 |   |
| MXQ25-40Z□2  | 124 | 43 |   |
| MXQ25-50Z□2  | 147 | 43 |   |
| MXQ25-75Z□2  | 172 | 43 |   |
| MXQ25-100Z□2 | 213 | 73 |   |
| MXQ25-125Z□2 | 277 | 73 |   |
| MXQ25-150Z□2 | 302 | 73 |   |

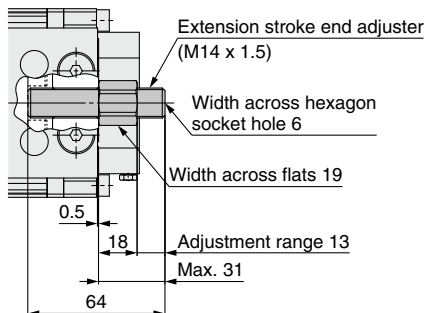
\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 25-□□2 With end lock, extension stroke end adjuster (ø25)

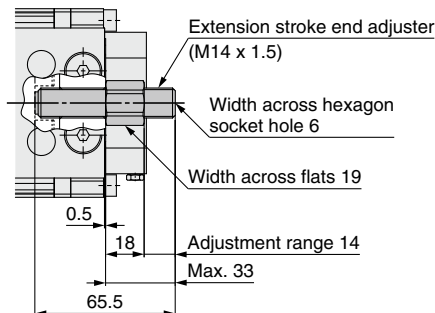
Select the long adjustment bolt and nut specification (-X28) when an end lock and extension stroke end adjuster are used together. However, the product number suffix (-X28) is not required. The stroke adjustment range is different from the adjuster of the standard product. A retraction stroke end adjuster cannot be mounted to the end lock.

#### Metal stopper with bumper: **ZB**

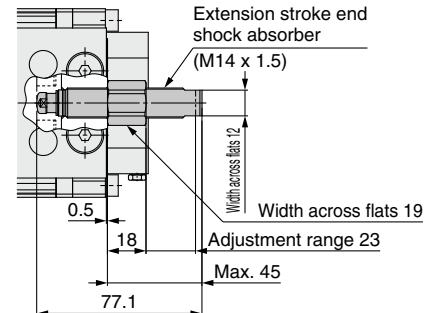
#### Metal stopper: **ZL**



#### Rubber stopper: **ZE**



#### Shock absorber/RJ: **ZH**



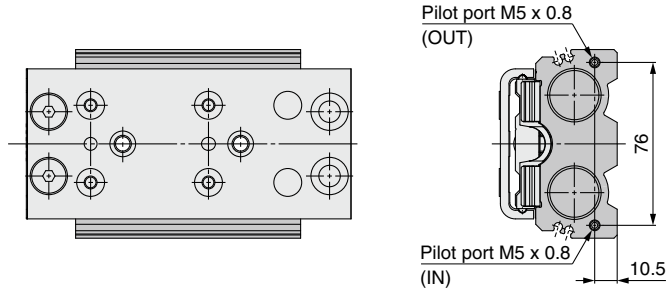
\* Dimensions other than those listed above are the same as those for the standard type.

| Type                          | Adjuster part no. | Single adjustment bolt part no.*1 |
|-------------------------------|-------------------|-----------------------------------|
| Metal stopper with bumper: ZB | MXQA-CT25-X28     | MXQA-A2587-X11                    |
| Rubber stopper: ZE            | MXQA-AT25-X28     | MXQA-A2527-X11                    |
| Shock absorber/RJ: ZH         | MXQA-JT25-X28     | RJ1410U-X2300                     |
| Metal stopper: ZL             | MXQA-DT25-X28     | MXQA-A2538-X11                    |

\*1 This part number is only for a single unit of the adjustment bolt without a nut. It can be used as a spare part when the adjustment bolt is worn.

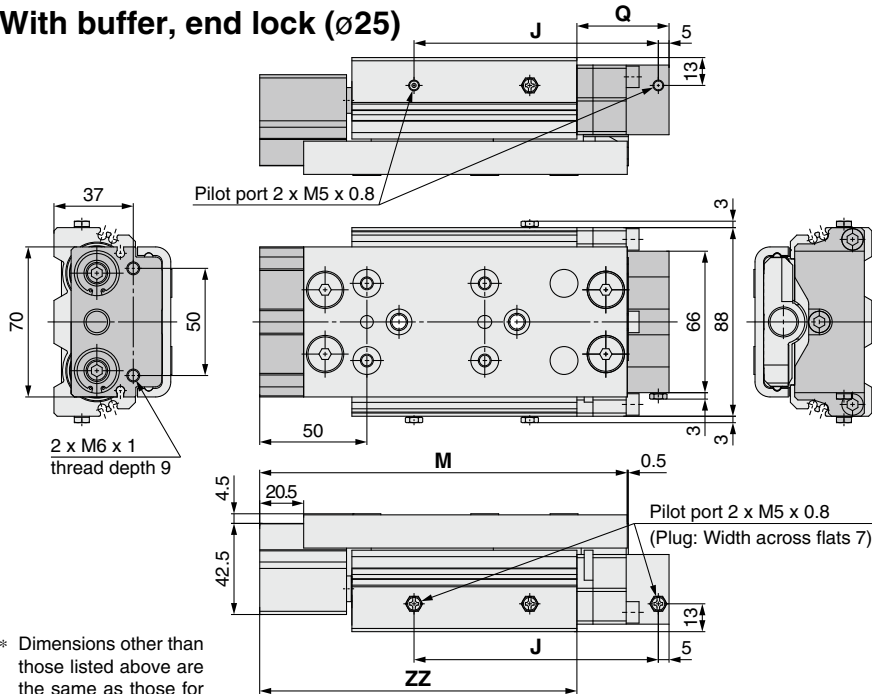
Dimensions: MXQ **25** [Functional Option]

**MXQ 25-□□3**  
Axial piping (ø25)

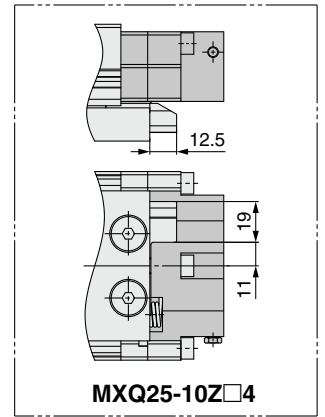


\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 25-□□4**  
With buffer, end lock (ø25)



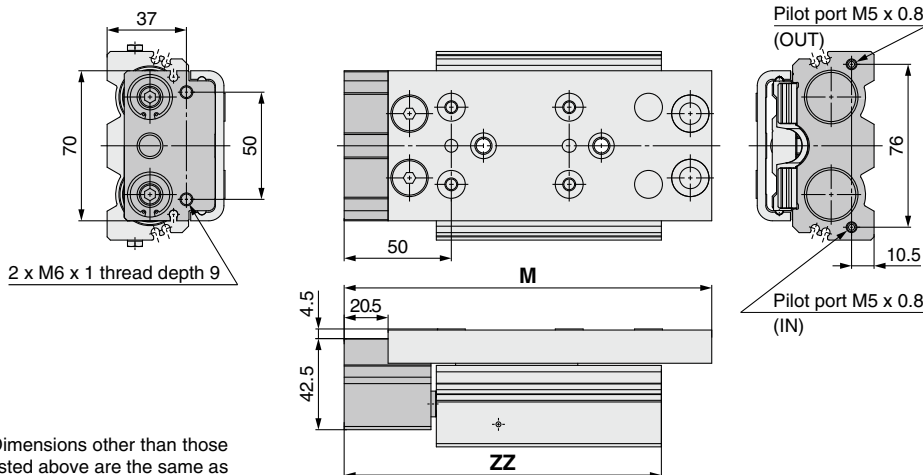
\* Dimensions other than those listed above are the same as those for the standard type.



**Dimensions** [mm]

| Model        | J   | Q  | Standard type |                           | ZZ  |
|--------------|-----|----|---------------|---------------------------|-----|
|              |     |    | M             | Shorter total length type |     |
| MXQ25-10Z□4  | 109 | 48 | 151.5         | 130                       | 138 |
| MXQ25-20Z□4  | 104 | 43 | 161.5         | 140                       | 138 |
| MXQ25-30Z□4  | 114 |    | 171.5         | 150                       |     |
| MXQ25-40Z□4  | 124 | 43 | 181.5         | 160                       | 158 |
| MXQ25-50Z□4  | 147 | 73 | 204.5         | 183                       | 181 |
| MXQ25-75Z□4  | 172 |    | 229.5         | 208                       | 206 |
| MXQ25-100Z□4 | 213 | 73 | 270.5         | 149                       | 217 |
| MXQ25-125Z□4 | 277 | 73 | 334.5         | 313                       | 281 |
| MXQ25-150Z□4 | 302 |    | 359.5         | 338                       | 306 |

**MXQ 25-□□5**  
With buffer, axial piping (ø25)



\* Dimensions other than those listed above are the same as those for the standard type.

**Dimensions** [mm]

| Model        | Standard type |                           | ZZ  |
|--------------|---------------|---------------------------|-----|
|              | M             | Shorter total length type |     |
| MXQ25-10Z□5  | 151.5         | 130                       | 138 |
| MXQ25-20Z□5  | 161.5         | 140                       | 138 |
| MXQ25-30Z□5  | 171.5         | 150                       |     |
| MXQ25-40Z□5  | 181.5         | 160                       | 158 |
| MXQ25-50Z□5  | 204.5         | 183                       | 181 |
| MXQ25-75Z□5  | 229.5         | 208                       | 206 |
| MXQ25-100Z□5 | 270.5         | 149                       | 217 |
| MXQ25-125Z□5 | 334.5         | 313                       | 281 |
| MXQ25-150Z□5 | 359.5         | 338                       | 306 |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

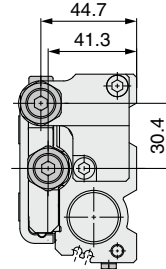
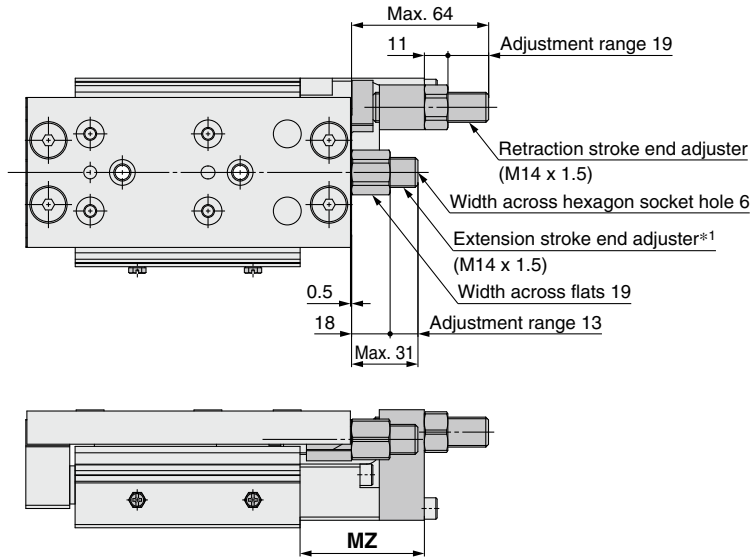
## Dimensions: MXQ **25** [Functional Option]

### MXQ 25-□□6 Centralized adjuster (ø25)

Metal stopper with bumper **ZA**: Both ends, **ZC**: Retraction stroke end

Metal stopper **ZK**: Both ends, **ZM**: Retraction stroke end

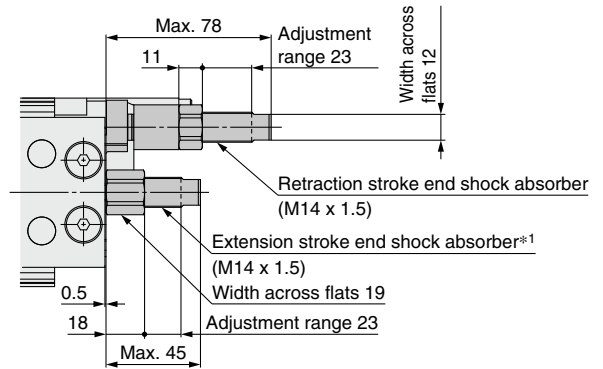
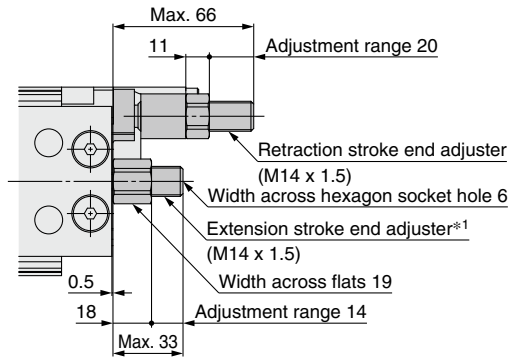
\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.



| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ25-10Z□6     | 48 |
| MXQ25-20Z□6     | 58 |
| MXQ25-30Z□6     |    |
| MXQ25-40Z□6     |    |
| MXQ25-50Z□6     |    |
| MXQ25-75Z□6     | 88 |
| MXQ25-100Z□6    |    |
| MXQ25-125Z□6    |    |
| MXQ25-150Z□6    |    |

Rubber stopper **ZD**: Both ends, **ZF**: Retraction stroke end

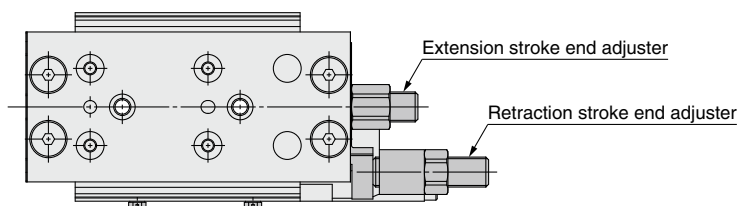
Shock absorber/RJ **ZG**: Both ends, **ZJ**: Retraction stroke end



\* Dimensions other than those listed above are the same as those for the standard type.

### MXQ 25-□□7 Centralized adjuster / Symmetric type (ø25)

The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 6.

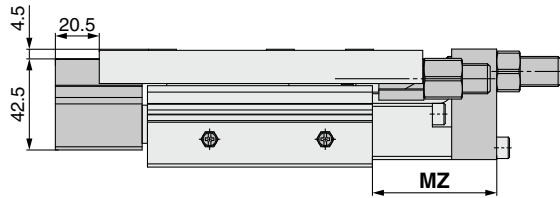
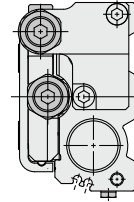
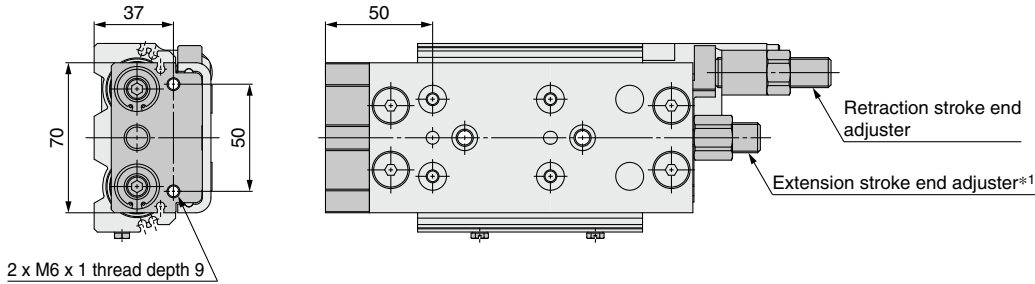


Dimensions: MXQ **25** [Functional Option]

**MXQ 25-□□8 Buffer, Centralized adjuster (ø25)**

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type.

\*1 The extension stroke end adjuster (shock absorber) uses long adjustment nut and bolt specifications (-X28). (A standard adjuster cannot be mounted on the product.) For details on long adjustment nut and bolt specifications (-X28), refer to page 130.

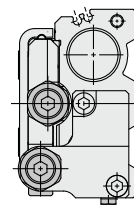
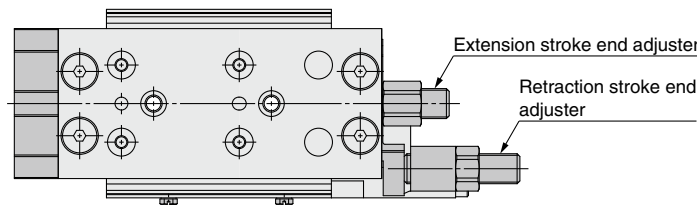


| Dimensions [mm] |    |
|-----------------|----|
| Model           | MZ |
| MXQ25-10Z□8     | 48 |
| MXQ25-20Z□8     |    |
| MXQ25-30Z□8     |    |
| MXQ25-40Z□8     | 58 |
| MXQ25-50Z□8     |    |
| MXQ25-75Z□8     |    |
| MXQ25-100Z□8    | 88 |
| MXQ25-125Z□8    |    |
| MXQ25-150Z□8    |    |

\* Dimensions other than those listed above are the same as those for the standard type.

**MXQ 25-□□9 Buffer, Centralized adjuster / Symmetric type (ø25)**

The extension stroke end adjuster can only be mounted on a rubber stopper type or a metal stopper type. The mounting position of the retraction stroke end adjuster is on the reverse side of functional option 8.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

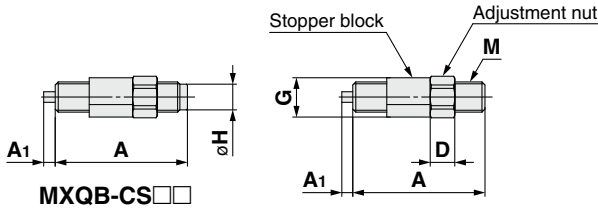
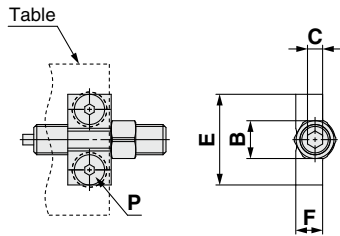
Made to Order

Model Selection

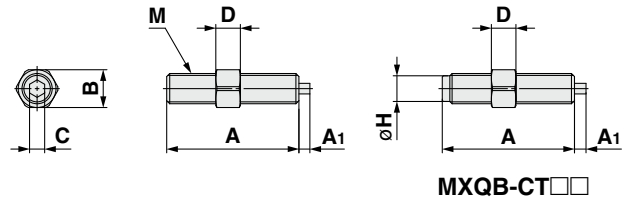
# Common Adjuster Options

## Metal Stopper with Bumper

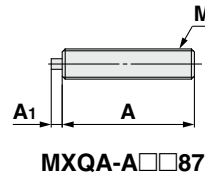
### Extension stroke end



### Retraction stroke end



### Single metal stopper with bumper

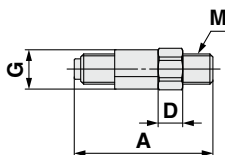
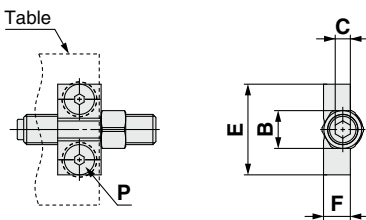


| Model       | Adjuster part no.    |                       |                                    | A          | A1 | B   | C  | D | E   | F    | G    | M (Fine pitch) | P*2       | øH      |      |
|-------------|----------------------|-----------------------|------------------------------------|------------|----|-----|----|---|-----|------|------|----------------|-----------|---------|------|
|             | Extension stroke end | Retraction stroke end | Single metal stopper with bumper*1 |            |    |     |    |   |     |      |      |                |           |         |      |
| MXQ8(A, C)  | —                    | MXQA-CS8              | MXQA-CT8                           | MXQA-A887  | 30 | 2   | 8  | 3 | 5   | 18   | 5.8  | 8.3            | M6 x 0.75 | M3 x 6  | —    |
| MXQ12(A, C) | —                    | MXQA-CS12             | MXQA-CT12                          | MXQA-A1287 | 35 | 2.8 | 10 | 4 | 6.5 | 24   | 7.1  | 10.4           | M8 x 1    | M4 x 8  | —    |
| MXQ16(A)    | —                    | MXQA-CS16             | MXQA-CT16                          | MXQA-A1687 | 40 | 3.6 | 12 | 5 | 8   | 29.4 | 9.2  | 12.6           | M10 x 1   | M5 x 10 | —    |
| MXQ20(A)    | —                    | MXQA-CS20             | MXQA-CT20                          | MXQA-A2087 | 47 | 4.4 | 17 | 6 | 10  | 36   | 11.2 | 16.2           | M12 x 1   | M6 x 12 | —    |
| MXQ25(A)    | —                    | MXQA-CS25             | MXQA-CT25                          | MXQA-A2587 | 54 | 5.5 | 19 | 6 | 11  | 44   | 13.5 | 19.3           | M14 x 1.5 | M8 x 16 | —    |
| —           | MXQ8B                | MXQB-CS8              | MXQB-CT8                           | MXQB-A887  | 35 | 2   | 10 | 4 | 6.5 | 24   | 7.1  | 10.4           | M8 x 1    | M4 x 8  | 6.8  |
| —           | MXQ12B               | MXQB-CS12             | MXQB-CT12                          | MXQB-A1287 | 40 | 2.8 | 12 | 5 | 8   | 29.4 | 9.2  | 12.6           | M10 x 1   | M5 x 10 | 8.8  |
| —           | MXQ16B               | MXQB-CS16             | MXQB-CT16                          | MXQB-A1687 | 47 | 3.6 | 17 | 6 | 10  | 36   | 11.2 | 16.2           | M12 x 1   | M6 x 12 | 10.8 |
| —           | MXQ20B               | MXQB-CS20             | MXQB-CT20                          | MXQB-A2087 | 54 | 4.4 | 19 | 6 | 11  | 44   | 13.5 | 19.3           | M14 x 1.5 | M8 x 16 | 12.3 |

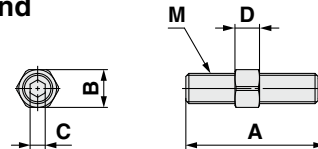
\*1 Single metal stopper with bumper: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw  
 \*2 Size of the hexagon socket flat countersunk head cap screw

## Rubber Stopper

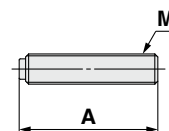
### Extension stroke end



### Retraction stroke end



### Single rubber stopper

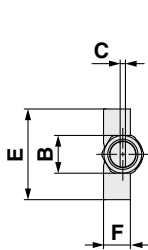
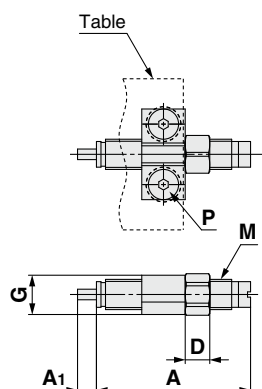


| Model       | Adjuster part no.    |                       |                         | A    | B  | C | D   | E    | F    | G    | M (Fine pitch) | P*2     |
|-------------|----------------------|-----------------------|-------------------------|------|----|---|-----|------|------|------|----------------|---------|
|             | Extension stroke end | Retraction stroke end | Single rubber stopper*1 |      |    |   |     |      |      |      |                |         |
| MXQ6(A)     | —                    | —                     | —                       | 31.5 | 8  | 3 | 5   | 18   | 5.8  | 8.3  | M6 x 0.75      | M3 x 6  |
| MXQ6B       | MXQA-AS8             | MXQA-AT8              | MXQA-A827               | 31.5 | 8  | 3 | 5   | 18   | 5.8  | 8.3  | M6 x 0.75      | M3 x 6  |
| MXQ8(A, C)  | —                    | —                     | —                       | 36.5 | 10 | 4 | 6.5 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ12(A, C) | MXQA-AS12            | MXQA-AT12             | MXQA-A1227              | 36.5 | 10 | 4 | 6.5 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ8B       | MXQA-AS12            | MXQA-AT12             | MXQA-A1227              | 36.5 | 10 | 4 | 6.5 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ16(A)    | —                    | —                     | —                       | 41.5 | 12 | 5 | 8   | 29.4 | 9.2  | 12.6 | M10 x 1        | M5 x 10 |
| MXQ12B      | MXQA-AS16            | MXQA-AT16             | MXQA-A1627              | 41.5 | 12 | 5 | 8   | 29.4 | 9.2  | 12.6 | M10 x 1        | M5 x 10 |
| MXQ20(A)    | —                    | —                     | —                       | 48.5 | 17 | 6 | 10  | 36   | 11.2 | 16.2 | M12 x 1        | M6 x 12 |
| MXQ16B      | MXQA-AS20            | MXQA-AT20             | MXQA-A2027              | 48.5 | 17 | 6 | 10  | 36   | 11.2 | 16.2 | M12 x 1        | M6 x 12 |
| MXQ25(A)    | —                    | —                     | —                       | 55.5 | 19 | 6 | 11  | 44   | 13.5 | 19.3 | M14 x 1.5      | M8 x 16 |
| MXQ20B      | MXQA-AS25            | MXQA-AT25             | MXQA-A2527              | 55.5 | 19 | 6 | 11  | 44   | 13.5 | 19.3 | M14 x 1.5      | M8 x 16 |

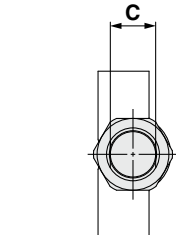
\*1 Single rubber stopper: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw  
 \*2 Size of the hexagon socket flat countersunk head cap screw

## Shock Absorber/RJ

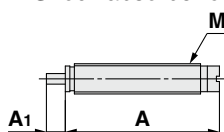
### Extension stroke end



MXQA-JS8



MXQA-JS12 to JS25  
Shock absorber only

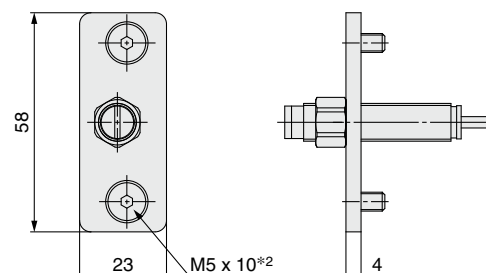
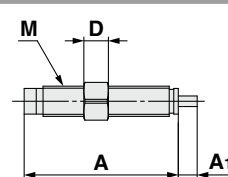
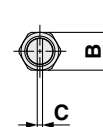


RJ□□□□(H)N

### Retraction stroke end



MXQA-JT12 to JT25 MXQA-JT8



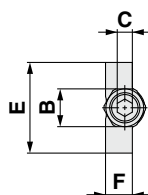
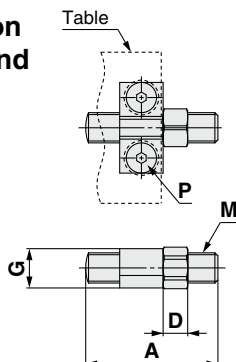
MXQA-JT20P\*3

| Model       | Adjuster part no.    |                       |                       | A    | A1  | B  | C  | D   | E    | F    | G    | M (Fine pitch) | P*2     |
|-------------|----------------------|-----------------------|-----------------------|------|-----|----|----|-----|------|------|------|----------------|---------|
|             | Extension stroke end | Retraction stroke end | Shock absorber only*1 |      |     |    |    |     |      |      |      |                |         |
| MXQ6(A)     | MXQA-JS8             | MXQA-JT8              | RJ0603N               | 29.9 | 3.4 | 8  | 1  | 5   | 18   | 5.8  | 8.3  | M6 x 0.75      | M3 x 6  |
| MXQ6B       |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |
| MXQ8(A, C)  | MXQA-JS12            | MXQA-JT12             | RJ0805N               | 40.8 | 5   | 10 | 7  | 6.5 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ12(A, C) |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |
| MXQ8B       | MXQA-JS16            | MXQA-JT16             | RJ1006N               | 45.3 | 6   | 12 | 9  | 8   | 29.4 | 9.2  | 12.6 | M10 x 1        | M5 x 10 |
| MXQ16(A)    |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |
| MXQ12B      | MXQA-JS20            | MXQA-JT20P            | RJ1007HN              | 45.3 | 7   | 12 | 9  | 8   | 36   | 11.2 | 16.2 | M10 x 1        | M6 x 12 |
| MXQ20(A)    |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |
| MXQ16B      | MXQA-JS25            | MXQA-JT25             | RJ1410N               | 67.1 | 10  | 19 | 12 | 11  | 44   | 13.5 | 19.3 | M14 x 1.5      | M8 x 16 |
| MXQ25(A)    |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |
| MXQ20B      |                      |                       |                       |      |     |    |    |     |      |      |      |                |         |

- \*1 Shock absorber only: A single unit of the shock absorber without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw
- \*2 Size of the hexagon socket flat countersunk head cap screw
- \*3 Since the retraction stroke end shock absorber of the MXQ20(A) and MXQ16B has a different thread size from that of the product, use the mounting plate to mount the shock absorber. For this reason, the part number will differ from other sizes. (The part number has a "P" suffix.)

## Metal Stopper

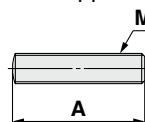
### Extension stroke end



### Retraction stroke end



Metal stopper only



MXQA-A□□38

| Model       | Adjuster part no.    |                       |                      | A  | B  | C | D   | E    | F    | G    | M (Fine pitch) | P*2     |
|-------------|----------------------|-----------------------|----------------------|----|----|---|-----|------|------|------|----------------|---------|
|             | Extension stroke end | Retraction stroke end | Metal stopper only*1 |    |    |   |     |      |      |      |                |         |
| MXQ6(A)     | MXQA-DS8             | MXQA-DT8              | MXQA-A838            | 30 | 8  | 3 | 5   | 18   | 5.8  | 8.3  | M6 x 0.75      | M3 x 6  |
| MXQ6B       |                      |                       |                      |    |    |   |     |      |      |      |                |         |
| MXQ8(A, C)  | MXQA-DS12            | MXQA-DT12             | MXQA-A1238           | 35 | 10 | 4 | 6.5 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ12(A, C) |                      |                       |                      |    |    |   |     |      |      |      |                |         |
| MXQ8B       | MXQA-DS16            | MXQA-DT16             | MXQA-A1638           | 40 | 12 | 5 | 8   | 29.4 | 9.2  | 12.6 | M10 x 1        | M5 x 10 |
| MXQ16(A)    |                      |                       |                      |    |    |   |     |      |      |      |                |         |
| MXQ12B      | MXQA-DS20            | MXQA-DT20             | MXQA-A2038           | 47 | 17 | 6 | 10  | 36   | 11.2 | 16.2 | M12 x 1        | M6 x 12 |
| MXQ20(A)    |                      |                       |                      |    |    |   |     |      |      |      |                |         |
| MXQ16B      | MXQA-DS25            | MXQA-DT25             | MXQA-A2538           | 54 | 19 | 6 | 11  | 44   | 13.5 | 19.3 | M14 x 1.5      | M8 x 16 |
| MXQ25(A)    |                      |                       |                      |    |    |   |     |      |      |      |                |         |
| MXQ20B      |                      |                       |                      |    |    |   |     |      |      |      |                |         |

- \*1 Metal stopper only: A single unit of the stopper without a stopper block, adjustment nut, or hexagon socket flat countersunk head cap screw
- \*2 Size of the hexagon socket flat countersunk head cap screw

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

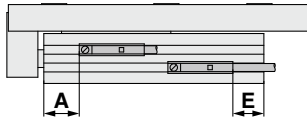
Model Selection



# MXQ Series Auto Switch Mounting

## Auto Switch Proper Mounting Position (Detection at stroke end)

\* Adjust the auto switch after confirming the operating conditions in the actual setting.



### Solid State Auto Switch: D-M9□/M9□W

[mm]

| Model       | A stroke |      |      |      |      |      |      |      |      |      | E stroke |      |      |      |      |      |      |      |  |  |
|-------------|----------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|--|--|
|             | 10       | 20   | 30   | 40   | 50   | 75   | 100  | 125  | 150  | 10   | 20       | 30   | 40   | 50   | 75   | 100  | 125  | 150  |  |  |
| MXQ6(A)     | 18       | 7.4  | 7.4  | 7.4  | 7.4  | —    | —    | —    | —    | 0    | 0.6      | 3.6  | 5.6  | 5.6  | —    | —    | —    | —    |  |  |
| MXQ8(A, C)  | 13.9     | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | —    | —    | —    | 5.1  | 5.1      | 5.1  | 11.1 | 28.1 | 5.1  | —    | —    | —    |  |  |
| MXQ12(A, C) | 26.5     | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | —    | —    | —    | 4.1  | 6.1      | 6.1  | 14.1 | 14.1 | 33.1 | 33.1 | —    | —    |  |  |
| MXQ16(A)    | 20.6     | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | —    | —    | 20   | 14       | 14   | 21   | 21   | 27   | 46   | 46   | —    |  |  |
| MXQ20(A)    | 32.2     | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | —    | 20.9 | 21.9     | 21.9 | 21.9 | 27.9 | 36.9 | 61.9 | 61.9 | 61.9 |  |  |
| MXQ25(A)    | 34.4     | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 28.7 | 27.7     | 27.7 | 27.7 | 40.7 | 40.7 | 42.7 | 65.4 | 65.7 |  |  |
| MXQ6B       | 18       | 7.4  | 7.4  | 7.4  | 7.4  | 7.4  | —    | —    | —    | 1    | 11.6     | 11.6 | 17.6 | 34.6 | 11.6 | —    | —    | —    |  |  |
| MXQ8B       | 29       | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | —    | —    | —    | 2    | 9.1      | 9.1  | 17.1 | 17.1 | 36.1 | 36.1 | —    | —    |  |  |
| MXQ12B      | 26.5     | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | —    | —    | 14   | 18       | 18   | 25   | 25   | 31   | 50   | 50   | —    |  |  |
| MXQ16B      | 20.6     | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | —    | 32.9 | 22.9     | 22.9 | 22.9 | 28.9 | 37.9 | 62.9 | 62.9 | 62.9 |  |  |
| MXQ20B      | 32.2     | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | —    | 30.8 | 31.8     | 31.8 | 31.8 | 44.8 | 44.8 | 30.8 | 69.8 | 69.8 |  |  |

### Solid State Auto Switch: D-M9□V/M9□WV

[mm]

| Model       | A stroke |      |      |      |      |      |      |      |     |      | E stroke |      |      |      |      |      |      |      |  |  |
|-------------|----------|------|------|------|------|------|------|------|-----|------|----------|------|------|------|------|------|------|------|--|--|
|             | 10       | 20   | 30   | 40   | 50   | 75   | 100  | 125  | 150 | 10   | 20       | 30   | 40   | 50   | 75   | 100  | 125  | 150  |  |  |
| MXQ6(A)     | 18       | 7.4  | 7.4  | 7.4  | 7.4  | —    | —    | —    | —   | 2    | 2.6      | 5.6  | 7.6  | 7.6  | —    | —    | —    | —    |  |  |
| MXQ8(A, C)  | 13.9     | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | —    | —    | —   | 7.1  | 7.1      | 7.1  | 13.1 | 30.1 | 7.1  | —    | —    | —    |  |  |
| MXQ12(A, C) | 26.5     | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | —    | —   | 6.1  | 8.1      | 8.1  | 16.1 | 16.1 | 35.1 | 35.1 | —    | —    |  |  |
| MXQ16(A)    | 20.6     | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | —    | —   | 22   | 16       | 16   | 23   | 23   | 29   | 48   | 48   | —    |  |  |
| MXQ20(A)    | 32.2     | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | —   | 22.9 | 23.9     | 23.9 | 23.9 | 29.9 | 38.9 | 63.9 | 63.9 | 63.9 |  |  |
| MXQ25(A)    | 34.4     | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | 25.4 | —   | 30.7 | 29.7     | 29.7 | 29.7 | 42.7 | 42.7 | 28.7 | 67.7 | 67.7 |  |  |
| MXQ6B       | 18       | 7.4  | 7.4  | 7.4  | 7.4  | 7.4  | —    | —    | —   | 3    | 13.6     | 13.6 | 19.6 | 36.6 | 13.6 | —    | —    | —    |  |  |
| MXQ8B       | 29       | 13.9 | 13.9 | 13.9 | 13.9 | 13.9 | —    | —    | —   | 4    | 11.1     | 11.1 | 19.1 | 19.1 | 38.1 | 38.1 | —    | —    |  |  |
| MXQ12B      | 26.5     | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | 16.5 | —    | —   | 16   | 20       | 20   | 27   | 27   | 33   | 52   | 52   | —    |  |  |
| MXQ16B      | 20.6     | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 | —   | 34.9 | 24.9     | 24.9 | 24.9 | 30.9 | 30.9 | 64.9 | 64.9 | 64.9 |  |  |
| MXQ20B      | 32.2     | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | 21.2 | —   | 32.9 | 33.8     | 33.8 | 33.8 | 46.8 | 46.8 | 32.8 | 71.8 | 71.8 |  |  |

### Reed Auto Switch: D-A9□/A9□V

[mm]

| Model       | A stroke |      |      |      |      |      |      |      |     |                | E stroke       |                |                |                |                |                |                |                |  |  |
|-------------|----------|------|------|------|------|------|------|------|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--|--|
|             | 10       | 20   | 30   | 40   | 50   | 75   | 100  | 125  | 150 | 10             | 20             | 30             | 40             | 50             | 75             | 100            | 125            | 150            |  |  |
| MXQ6(A)     | 14       | 3.4  | 3.4  | 3.4  | 3.4  | —    | —    | —    | —   | 4<br>(1.5)     | 4.6<br>(2)     | 7.6<br>(5.1)   | 9.6<br>(7.1)   | 9.6<br>(7.1)   | —              | —              | —              | —              |  |  |
| MXQ8(A, C)  | 9.9      | 9.9  | 9.9  | 9.9  | 9.9  | 9.9  | —    | —    | —   | 9.1<br>(6.6)   | 9.1<br>(6.6)   | 9.1<br>(6.6)   | 15.1<br>(12.6) | 32.1<br>(29.6) | 9.1<br>(6.6)   | —              | —              | —              |  |  |
| MXQ12(A, C) | 22.5     | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | —    | —    | —   | 8.1<br>(5.6)   | 10.1<br>(7.6)  | 10.1<br>(7.6)  | 18.1<br>(15.6) | 18.1<br>(15.6) | 37.1<br>(34.6) | 37.1<br>(34.6) | —              | —              |  |  |
| MXQ16(A)    | 16.6     | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | —    | —   | 24<br>(21.5)   | 18<br>(15.5)   | 18<br>(15.5)   | 25<br>(22.5)   | 25<br>(22.5)   | 31<br>(28.5)   | 50<br>(47.5)   | 50<br>(47.5)   | —              |  |  |
| MXQ20(A)    | 28.2     | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | —   | 24.9<br>(22.4) | 25.9<br>(23.4) | 25.9<br>(23.4) | 25.9<br>(23.4) | 31.9<br>(29.4) | 40.9<br>(38.4) | 65.9<br>(63.4) | 65.9<br>(63.4) | 65.9<br>(63.4) |  |  |
| MXQ25(A)    | 30.4     | 21.4 | 21.4 | 21.4 | 21.4 | 21.4 | 21.4 | 21.4 | —   | 32.7<br>(30.2) | 31.7<br>(30.2) | 31.7<br>(30.2) | 31.7<br>(30.2) | 44.7<br>(42.2) | 44.7<br>(42.2) | 46.7<br>(44.2) | 69.4<br>(66.9) | 69.7<br>(67.2) |  |  |
| MXQ6B       | 14       | 3.4  | 3.4  | 3.4  | 3.4  | 3.4  | —    | —    | —   | 5<br>(2.5)     | 15.6<br>(13.1) | 15.6<br>(13.1) | 21.6<br>(19.1) | 38.6<br>(36.1) | 15.6<br>(13.1) | —              | —              | —              |  |  |
| MXQ8B       | 25       | 9.9  | 9.9  | 9.9  | 9.9  | 9.9  | —    | —    | —   | 6<br>(3.5)     | 13.1<br>(10.6) | 13.1<br>(10.6) | 21.1<br>(18.6) | 21.1<br>(18.6) | 40.1<br>(37.6) | 40.1<br>(37.6) | —              | —              |  |  |
| MXQ12B      | 22.5     | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | —    | —   | 18<br>(15.5)   | 22<br>(19.5)   | 22<br>(19.5)   | 29<br>(26.5)   | 29<br>(26.5)   | 35<br>(32.5)   | 54<br>(51.5)   | 54<br>(51.5)   | —              |  |  |
| MXQ16B      | 16.6     | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | —   | 36.9<br>(34.4) | 26.9<br>(24.4) | 26.9<br>(24.4) | 26.9<br>(24.4) | 32.9<br>(30.4) | 41.9<br>(39.4) | 66.9<br>(64.4) | 66.9<br>(64.4) | 66.9<br>(64.4) |  |  |
| MXQ20B      | 28.2     | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | —   | 34.8<br>(32.3) | 35.8<br>(33.3) | 35.8<br>(33.3) | 35.8<br>(33.3) | 48.8<br>(46.3) | 48.8<br>(46.3) | 34.8<br>(32.3) | 73.8<br>(71.3) | 73.8<br>(71.3) |  |  |

( ): Denotes the values of D-A93.

## Auto Switch Mounting

### ⚠ Caution

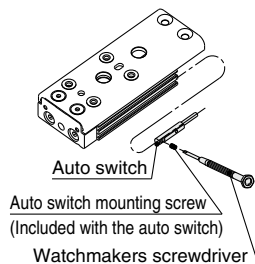
#### ■ Tightening torque

Tightening Torque of Auto Switch Mounting Screw [N·m]

| Auto switch model    | Tightening torque |
|----------------------|-------------------|
| D-M9□(V)/M9□W(V)/M9□ | 0.05 to 0.15      |
| D-A9□(V)             | 0.10 to 0.20      |

#### ■ Auto switch mounting tool

When tightening the auto switch mounting screw (included with the auto switch), use a watchmakers screwdriver with a handle diameter of about 5 to 6 mm.



## Operating Range

[mm]

| Auto switch model    | Applicable bore size |     |    |    |     |    |
|----------------------|----------------------|-----|----|----|-----|----|
|                      | 6                    | 8   | 12 | 16 | 20  | 25 |
| D-M9□(V)/M9□W(V)/M9□ | 2.5                  | 2.5 | 3  | 4  | 4.5 | 5  |
| D-A9□(V)             | 4.5                  | 5   | 6  | 7  | 8   | 9  |

\* Values which include hysteresis are for reference purposes only. They are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

Other than the applicable auto switches listed in "How to Order," the following auto switches are also mountable.

Normally closed (NC = b contact) solid state auto switches (D-F9G/ F9H) and solid state auto switch (D-F8) are also available. For details, refer to the Web Catalog or Best Pneumatics Catalog.

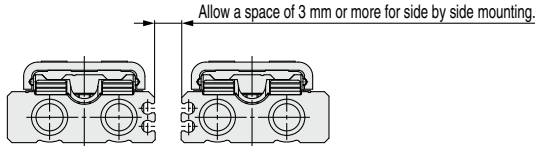


## Caution on Mounting Auto Switches

### ⚠ Caution

1. Allow a space of 3 mm or more if a standard type and symmetric type are used side by side.

Otherwise, the auto switches may malfunction.



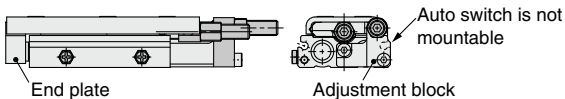
2. Note that an auto switch with a functional option centralized adjuster may not be able to be installed in some places because of the adjustment block. Use the method listed below. In the case of a stroke that is not indicated by [x] in the table below, it is possible to use the auto switch after inserting it from the end plate side.

- 1) Install the auto switch in another auto switch groove.
- 2) First, remove the adjustment block unit, and then insert the switch.  
(For details on the removal method of the adjustment block unit, refer to "How to Remove the Adjustment Block Unit.")
- 3) Replace the auto switch with a D-F8 auto switch.

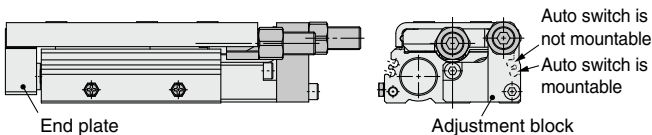
| Double-ported type     |        |    |    |    |    |    |     |     |     |
|------------------------|--------|----|----|----|----|----|-----|-----|-----|
| Model                  | Stroke |    |    |    |    |    |     |     |     |
|                        | 10     | 20 | 30 | 40 | 50 | 75 | 100 | 125 | 150 |
| MXQ6A-Z□□(6, 7, 8, 9)  | ×      | ×  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ8A-Z□□(6, 7, 8, 9)  | ×      | ×  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ12A-Z□□(6, 7, 8, 9) | ×      | ×  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ16A-Z□□(6, 7, 8, 9) | ×      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |
| MXQ20A-Z□□(6, 7, 8, 9) | ×      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |
| MXQ25A-Z□□(6, 7, 8, 9) | ○      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |

| Height interchangeable type |        |    |    |    |    |    |     |     |     |
|-----------------------------|--------|----|----|----|----|----|-----|-----|-----|
| Model                       | Stroke |    |    |    |    |    |     |     |     |
|                             | 10     | 20 | 30 | 40 | 50 | 75 | 100 | 125 | 150 |
| MXQ6(L)-Z□□(6, 7, 8, 9)     | ○      | ○  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ8(L)-Z□□(6, 7, 8, 9)     | ○      | ○  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ12(L)-Z□□(6, 7, 8, 9)    | ○      | ○  | ○  | ○  | ○  | /  | /   | /   | /   |
| MXQ16-Z□□(6, 7, 8, 9)       | ×      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |
| MXQ20-Z□□(6, 7, 8, 9)       | ×      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |
| MXQ25-Z□□(6, 7, 8, 9)       | ○      | ○  | ○  | ○  | ○  | ○  | ○   | ○   | ○   |

### MXQ6A, 8A, 12A 10, 20 mm stroke

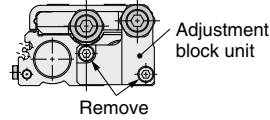


### MXQ16(A), 20(A) 10 mm stroke



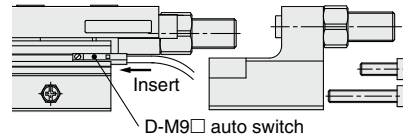
## How to Remove the Adjustment Block Unit

1. Remove the hexagon socket head cap screws shown in the drawing.



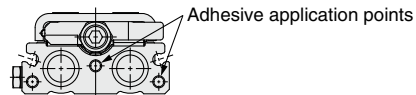
| Model                   | Hexagon socket head cap screw |                                       |                         |
|-------------------------|-------------------------------|---------------------------------------|-------------------------|
|                         | Screw size [mm]               | Width across hexagon socket hole [mm] | Tightening torque [N·m] |
| MXQ6□□-SZ□(6, 7, 8, 9)  | M2.5                          | 2                                     | 0.36                    |
| MXQ8□□-SZ□(6, 7, 8, 9)  | M3                            | 2.5                                   | 0.63                    |
| MXQ12□□-SZ□(6, 7, 8, 9) | M4                            | 3                                     | 1.5                     |
| MXQ16□□-SZ□(6, 7, 8, 9) | M5                            | 4                                     | 3                       |
| MXQ20□□-SZ□(6, 7, 8, 9) | M5                            | 4                                     | 3                       |

2. Insert the D-M9 auto switch.



3. Apply locking adhesive to the female thread of the body, and then install the adjustment block unit once again.

\* For the tightening torque and other values, refer to the table in item 1.



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection



## Made to Order

| Symbol | Specifications   | Double-ported type | Low thrust with high rigidity type | Single side-ported type | Height interchangeable type | Page |
|--------|--|--------------------|------------------------------------|-------------------------|-----------------------------|------|
|        |  | MXQ□A              | MXQ□B                              | MXQ□C                   | MXQ□                        |      |
| -X7    | PTFE grease  | ●                  | ●                                  | ●                       | ●                           | 128  |
| -X9    | Grease for food processing equipment                         | ●                  | ●                                  | ●                       | ●                           | 128  |
| -X11   | Long adjustment bolt (10 mm longer adjustment range)         | ●                  | ●                                  | ●                       | ●                           | 128  |
| -X12   | Long adjustment bolt (20 mm longer adjustment range)         | ●                  | ●                                  | ●                       | ●                           | 129  |
| -X28   | Long adjustment nut and bolt                                 | ●                  | ●                                  | ●                       | ●                           | 130  |
| -X33   | Without built-in auto switch magnet                          | ●                  | ●                                  | ●                       | ●                           | 131  |
| -X39   | Fluororubber seal  | ●                  | ●                                  | ●                       | ●                           | 131  |
| -X42   | Anti-corrosive guide unit                                    | ●                  | ●                                  | ●                       | ●                           | 131  |
| -X45   | EPDM seal  | ●                  | ●                                  | ●                       | ●                           | 131  |
| -X580  | Low-speed specification (15 to 50 mm/s)                      | ●                  | ●                                  | ●                       | ●                           | 131  |
| -X2100 | End plate compatible with the current MXQ series             |                    |                                    |                         | ●                           | 132  |
| -X2128 | Heat-resistant specification (-10°C to 100°C)                | ●                  | ●                                  | ●                       | ●                           | 132  |
| -X2192 | Dual stroke specification                                    | ● <sup>*1</sup>    |                                    |                         | ●                           | 133  |
| -X2200 | Side adjuster specification                                  |                    |                                    |                         | ●                           | 141  |
| -X2201 | Combined use of shock absorber + metal stopper               |                    |                                    |                         | ●                           | 147  |
| -X2202 | Extension stroke end adjuster fixed from the axial direction | ●                  | ●                                  | ●                       | ●                           | 153  |

\*1 Excludes ø6

## 1 PTFE Grease

Symbol  
**-X7**

PTFE grease is used for all parts to which grease is applied.

MXQ Standard model no. - X7

### Specifications

PTFE grease

|                |                      |
|----------------|----------------------|
| Bore size [mm] | 6, 8, 12, 16, 20, 25 |
|----------------|----------------------|

\* Dimensions and specifications other than the above are the same as the standard type.

## Warning

### Precautions

Be aware that smoking cigarettes, etc., after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

## 2 Grease for Food Processing Equipment

Symbol  
**-X9**

Grease for food is used for all parts to which grease is applied.

MXQ Standard model no. - X9

### Specifications

Grease for food processing equipment

|                |                      |
|----------------|----------------------|
| Bore size [mm] | 6, 8, 12, 16, 20, 25 |
|----------------|----------------------|

\* Dimensions and specifications other than the above are the same as the standard type.

## Caution

- Do not use in a food contact environment.
- Do not use in a liquid splash environment, e.g. water, detergent, liquid chemicals.

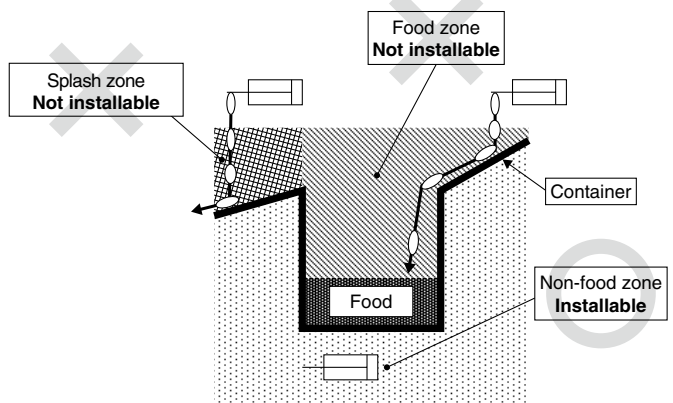
<Not installable>

Food zone.....An environment where food which will be sold as merchandise directly touches the cylinder's components

Splash zone.....An environment where food which will not be sold as merchandise directly touches the cylinder's components

<Installable>

Non-food zone ...An environment where there is no contact with food



## 3 Long Adjustment Bolt (10 mm longer adjustment range)

Symbol  
**-X11**

Metal stopper with bumper, Rubber stopper: The stroke adjustment range has been increased by 10 mm compared with the standard product by making the adjustment bolt longer. Shock absorber/RJ: The adjustment range has been increased though the use of a cap bracket mounted at the rod end of the shock absorber.

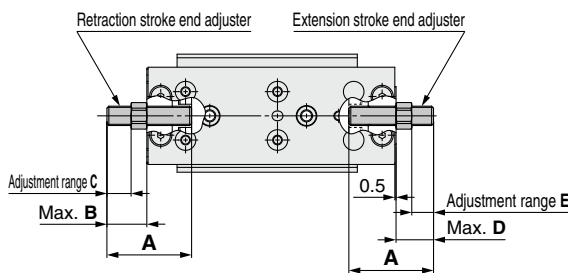
\*1 Refer to the table below for the shock absorber unit applicable to "-X11."

\* "-X11" is not available for products with end locks or centralized adjusters. Please consult with SMC when a product with a 10 mm longer adjustment range is required.

|     |                                      |       |
|-----|--------------------------------------|-------|
| MXQ | Standard model no.                   | - X11 |
|     | Standard adjuster model no.          |       |
|     | Standard adjustment bolt model no.*1 |       |

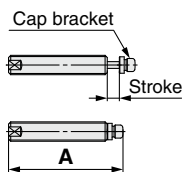
Long adjustment bolt (10 mm longer adjustment range)

## Dimensions



### RJ□-X2300

A cap bracket is mounted to lengthen the A dimension.



### Metal Stopper with Bumper

| Model             | A  | B  | C  | D  | E  |    |
|-------------------|----|----|----|----|----|----|
| MXQ8(A, C)        | —  | 40 | 25 | 20 | 23 | 18 |
| MXQ12(A, C) MXQ8B | 45 | 27 | 20 | 26 | 19 |    |
| MXQ16(A) MXQ12B   | 50 | 28 | 20 | 27 | 18 |    |
| MXQ20(A) MXQ16B   | 57 | 31 | 20 | 30 | 19 |    |
| MXQ25(A) MXQ20B   | 64 | 32 | 21 | 31 | 20 |    |

\*-X11" is not available for the MXQ6(A, B).

### Rubber Stopper

| Model             | A    | B    | C  | D  | E  |    |
|-------------------|------|------|----|----|----|----|
| MXQ6(A)           | —    | 41.5 | 27 | 22 | 25 | 20 |
| MXQ8(A, C) MXQ6B  | 41.5 | 27   | 21 | 25 | 19 |    |
| MXQ12(A, C) MXQ8B | 46.5 | 28   | 21 | 27 | 20 |    |
| MXQ16(A) MXQ12B   | 51.5 | 30   | 21 | 28 | 20 |    |
| MXQ20(A) MXQ16B   | 58.5 | 32   | 22 | 31 | 21 |    |
| MXQ25(A) MXQ20B   | 65.5 | 34   | 22 | 33 | 21 |    |

### Shock Absorber/RJ

| Model             | A    | B  | C  | D  | E  | Applicable shock absorber unit model |
|-------------------|------|----|----|----|----|--------------------------------------|
| MXQ12(A, C) MXQ8B | 47.3 | 29 | 19 | 28 | 18 | RJ0805U-X2300                        |
| MXQ16(A) MXQ12B   | 52.8 | 31 | 19 | 30 | 18 | RJ1006U-X2300                        |
| MXQ20(A) MXQ16B   | 52.8 | 23 | 11 | 26 | 14 | RJ1007HU-X2300                       |
| MXQ25(A) MXQ20B   | 77.1 | 46 | 31 | 45 | 30 | RJ1410U-X2300                        |

\*-X11" is not available for the MXQ6(A, B) and MXQ8(A, C).

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster or shock absorber. Refer to the full view of the standard product for details.

### Metal Stopper

| Model             | A  | B  | C  | D  | E  |    |
|-------------------|----|----|----|----|----|----|
| MXQ6(A)           | —  | 40 | 25 | 20 | 23 | 18 |
| MXQ8(A, C) MXQ6B  | 45 | 27 | 20 | 26 | 19 |    |
| MXQ12(A, C) MXQ8B | 50 | 28 | 20 | 27 | 18 |    |
| MXQ16(A) MXQ12B   | 57 | 31 | 20 | 30 | 19 |    |
| MXQ20(A) MXQ16B   | 64 | 32 | 21 | 31 | 20 |    |

## 4 Long Adjustment Bolt (20 mm longer adjustment range)

**-X12**

The stroke adjustment range has been increased by 20 mm compared with the standard product by making the adjustment bolt longer. For the adjustment range, refer to the table below.

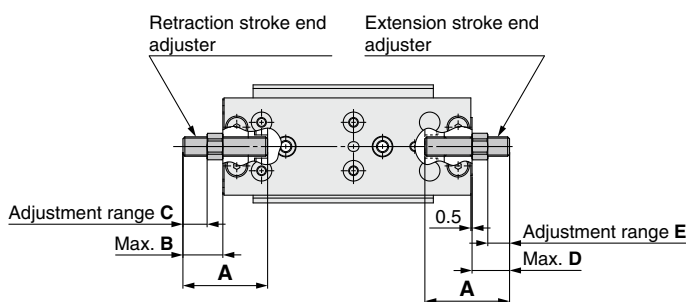
\* "-X12" is not available for the shock absorber (RJ).

\* "-X12" is not available for products with end locks or centralized adjusters. Please consult with SMC when a product with a 20 mm longer adjustment range is required.

|     |                                    |       |
|-----|------------------------------------|-------|
| MXQ | Standard model no.                 | - X12 |
|     | Standard adjuster model no.        |       |
|     | Standard adjustment bolt model no. |       |

● Long adjustment bolt (20 mm longer adjustment range)

### Dimensions



### Metal Stopper with Bumper

[mm]

| Model       | A      | B  | C  | D  | E  |    |
|-------------|--------|----|----|----|----|----|
| MXQ8(A, C)  | —      | 50 | 35 | 30 | 33 | 28 |
| MXQ12(A, C) | MXQ8B  | 55 | 37 | 30 | 36 | 29 |
| MXQ16(A)    | MXQ12B | 60 | 38 | 30 | 37 | 28 |
| MXQ20(A)    | MXQ16B | 67 | 41 | 30 | 40 | 29 |
| MXQ25(A)    | MXQ20B | 74 | 42 | 31 | 41 | 30 |

"-X12" is not available for the MXQ6(A, B).

### Rubber Stopper

[mm]

| Model       | A      | B    | C  | D  | E  |    |
|-------------|--------|------|----|----|----|----|
| MXQ6(A)     | —      | 51.5 | 37 | 32 | 35 | 30 |
| MXQ8(A, C)  | MXQ6B  | 51.5 | 37 | 31 | 35 | 29 |
| MXQ12(A, C) | MXQ8B  | 56.5 | 38 | 31 | 37 | 30 |
| MXQ16(A)    | MXQ12B | 61.5 | 40 | 31 | 38 | 30 |
| MXQ20(A)    | MXQ16B | 68.5 | 42 | 32 | 41 | 31 |
| MXQ25(A)    | MXQ20B | 75.5 | 44 | 32 | 43 | 31 |

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster. Refer to the full view of the standard product for details.

### Metal Stopper

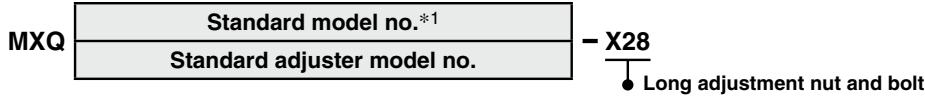
[mm]

| Model       | A      | B  | C  | D  | E  |    |
|-------------|--------|----|----|----|----|----|
| MXQ6(A)     | —      | 50 | 35 | 30 | 33 | 28 |
| MXQ8(A, C)  | MXQ6B  | 55 | 37 | 30 | 36 | 29 |
| MXQ12(A, C) | MXQ8B  | 60 | 38 | 30 | 37 | 28 |
| MXQ16(A)    | MXQ12B | 67 | 41 | 30 | 40 | 29 |
| MXQ20(A)    | MXQ16B | 74 | 42 | 31 | 41 | 30 |

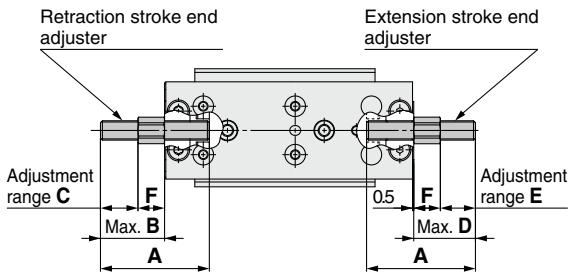
Symbol  
**-X28**

## 5 Long Adjustment Nut and Bolt

Easier stroke adjustment with the longer overall lengths of the adjustment nut, adjustment bolt, and shock absorber  
This is used for the extension stroke end adjuster of the end lock mechanism and the extension stroke end adjuster of the centralized adjuster specification.



### Dimensions



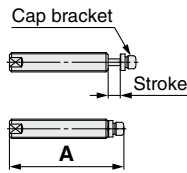
#### Metal Stopper with Bumper [mm]

| Model       | A      | B  | C  | D  | E  | F  |
|-------------|--------|----|----|----|----|----|
| MXQ8(A, C)  | —      | 40 | 25 | 15 | 23 | 13 |
| MXQ12(A, C) | —      | 45 | 27 | 16 | 26 | 15 |
| MXQ16(A)    | —      | 50 | 28 | 15 | 27 | 14 |
| MXQ20(A)    | —      | 57 | 31 | 17 | 30 | 16 |
| MXQ25(A)    | —      | 64 | 32 | 14 | 31 | 13 |
| —           | MXQ8B  | 45 | 27 | 16 | 26 | 15 |
| —           | MXQ12B | 50 | 28 | 15 | 27 | 14 |
| —           | MXQ16B | 57 | 31 | 17 | 30 | 16 |
| —           | MXQ20B | 64 | 32 | 14 | 31 | 13 |

The MXQ6(A, B) is not available.

#### Rubber Stopper [mm]

| Model       | A      | B    | C  | D  | E  | F  |
|-------------|--------|------|----|----|----|----|
| MXQ6(A)     | —      | 41.5 | 27 | 17 | 25 | 15 |
| MXQ8(A, C)  | MXQ6B  | 41.5 | 27 | 16 | 25 | 14 |
| MXQ12(A, C) | MXQ8B  | 46.5 | 28 | 17 | 27 | 16 |
| MXQ16(A)    | MXQ12B | 51.5 | 30 | 16 | 28 | 15 |
| MXQ20(A)    | MXQ16B | 58.5 | 32 | 19 | 31 | 18 |
| MXQ25(A)    | MXQ20B | 65.5 | 34 | 15 | 33 | 15 |



#### RJ□-X2300

A cap bracket is mounted to lengthen the A dimension.

#### Shock Absorber/RJ [mm]

| Model       | A      | B    | C  | D  | E  | F   | Applicable part no. (Shock absorber only) |
|-------------|--------|------|----|----|----|-----|---|
| MXQ6(A)     | —      | 29.9 | 16 | 3  | 14 | 3   | RJ0603N                                   |
| MXQ8(A, C)  | MXQ6B  | 29.9 | 15 | 3  | 13 | 2.2 |   |
| MXQ12(A, C) | MXQ8B  | 47.3 | 29 | 15 | 29 | 13  | RJ0805U-X2300                             |
| MXQ16(A)    | MXQ12B | 52.8 | 31 | 14 | 30 | 13  | RJ1006U-X2300                             |
| MXQ20(A)    | MXQ16B | 52.8 | 23 | 8  | 26 | 9   | RJ1007HU-X2300                            |
| MXQ25(A)    | MXQ20B | 77.1 | 46 | 24 | 45 | 24  | RJ1410U-X2300                             |

For the MXQ6(A, B) and MXQ8(A, C), only the adjustment nut is long.

#### Metal Stopper [mm]

| Model       | A      | B  | C  | D  | E  | F  |
|-------------|--------|----|----|----|----|----|
| MXQ6(A)     | —      | 40 | 26 | 16 | 24 | 14 |
| MXQ8(A, C)  | MXQ6B  |    |    |    |    |    |
| MXQ12(A, C) | MXQ8B  | 45 | 27 | 16 | 26 | 15 |
| MXQ16(A)    | MXQ12B | 50 | 28 | 15 | 27 | 14 |
| MXQ20(A)    | MXQ16B | 57 | 31 | 17 | 30 | 16 |
| MXQ25(A)    | MXQ20B | 64 | 32 | 14 | 31 | 13 |

Shape of the adjustment part varies (hexagonal hole, width across flats, slot) depending on the model of the adjuster or shock absorber. Refer to the full view of the standard product for details.

\*1 The extension stroke end adjuster (-X28) of the end lock is already used for the standard product. The product number suffix (-X28) is not required.

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

## 6 Without Built-in Auto Switch Magnet

Symbol  
**-X33**

This product does not have a magnet for an auto switch.  
It is suitable for applications where magnetic force is not acceptable.

MXQ Standard model no. - X33

● Without built-in auto switch magnet

### Specifications

|                |                      |
|----------------|----------------------|
| Bore size [mm] | 6, 8, 12, 16, 20, 25 |
| Auto switch    | Not mountable        |

\* Dimensions and specifications other than the above are the same as the standard type.

## 7 Fluororubber Seal

Symbol  
**-X39**

This specification changes the materials for the piston seal, rod seal, and O-rings to fluororubber.

MXQ Standard model no. - X39

● Fluororubber seal

### Specifications

|                |                      |
|----------------|----------------------|
| Bore size [mm] | 6, 8, 12, 16, 20, 25 |
| Seal material  | Fluororubber         |

\* Dimensions and specifications other than the above are the same as the standard type.

## 8 Anti-corrosive Guide Unit

Symbol  
**-X42**

Martensitic stainless steel is used for the table and guide block.  
Use this treatment if more effective anti-corrosiveness is necessary.  
Table and guide block are given anti-corrosive treatment.

MXQ Standard model no. - X42

● Anti-corrosive guide unit

### Specifications

|                   |                                    |
|-------------------|------------------------------------|
| Bore size [mm]    | 6, 8, 12, 16, 20, 25               |
| Surface treatment | Special anti-corrosive treatment*1 |

\*1 Special anti-corrosive treatment makes the table and the guide block black.  
\* Dimensions and specifications other than the above are the same as the standard type.

## 9 EPDM Seal

Symbol  
**-X45**

This specification changes the materials for the piston seal, rod seal, and O-rings to EPDM.

MXQ Standard model no. - X45

● EPDM seal

### Specifications

|                |                      |
|----------------|----------------------|
| Bore size [mm] | 6, 8, 12, 16, 20, 25 |
| Seal material  | EPDM                 |
| Grease         | PTFE grease          |

\* Dimensions and specifications other than the above are the same as the standard type.

## ⚠ Warning

### Precautions

Be aware that smoking cigarettes, etc., after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

## 10 Low-speed Specification (15 to 50 mm/s)

Symbol  
**-X580**

Stick-slip phenomenon can be prevented, and smooth operation can be achieved even at lower driving speeds between 15 to 50 mm/s.

MXQ Standard model no. - X580

● Low speed

### Specifications

|   |                               |
|---|-------------------------------|
| Bore size [mm]                                  | 6, 8, 12, 16, 20, 25          |
| Operating speed range (Average operating speed) | 15 to 50 mm/s                 |
| Applicable adjuster type                        | Rubber stopper, Metal stopper |

\* Dimensions and specifications other than the above are the same as the standard type.

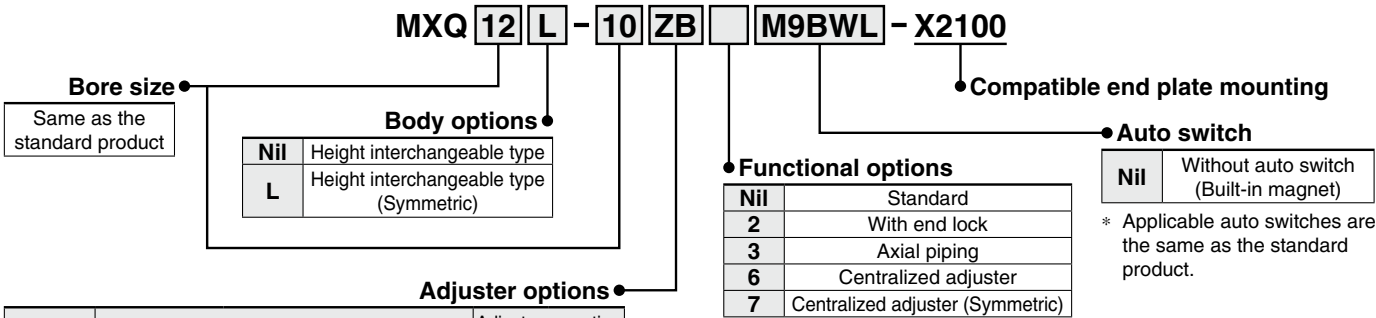
\* Operate without lubrication from a pneumatic system lubricator.

# 11 End Plate Compatible with the Current MXQ Series

Symbol  
**-X2100**

Dimensions for mounting a workpiece on the end plate are the same as those of the current MXQ series.

## How to Order



| Symbol                   | Adjuster type                                |   | Adjuster mounting position <sup>*3</sup> |                       |
|--------------------------|--|---|--|-----------------------|
|                          | Extension stroke end                         | Retraction stroke end                   | Extension stroke end                     | Retraction stroke end |
| <b>Z</b>                 | Without adjuster                             |   |  |                       |
| <b>ZA</b> <sup>*1</sup>  |  |   | ○  | ○                     |
| <b>ZB</b>                | Metal stopper with bumper <sup>*2</sup>      |   | ○  | ○                     |
| <b>ZC</b> <sup>*1</sup>  |  |   |  | ○                     |
| <b>ZD</b> <sup>*1</sup>  |  |   | ○  | ○                     |
| <b>ZE</b>                | Rubber stopper                               |   | ○  | ○                     |
| <b>ZF</b> <sup>*1</sup>  |  |   |  | ○                     |
| <b>ZG</b> <sup>*1</sup>  |  |   | ○  | ○                     |
| <b>ZH</b>                | Shock absorber/RJ                            |   | ○  | ○                     |
| <b>ZJ</b> <sup>*1</sup>  |  |   |  | ○                     |
| <b>ZK</b> <sup>*1</sup>  |  |   | ○  | ○                     |
| <b>ZL</b>                | Metal stopper                                |   | ○  | ○                     |
| <b>ZM</b> <sup>*1</sup>  |  |   |  | ○                     |
| <b>ZN</b>                | Shorter total length type (without adjuster) |   |  |                       |
| <b>ZBF</b> <sup>*1</sup> | Metal stopper with bumper <sup>*2</sup>      | Rubber stopper                          | ○  | ○                     |
| <b>ZBJ</b> <sup>*1</sup> |  | Shock absorber/RJ                       | ○  | ○                     |
| <b>ZBM</b> <sup>*1</sup> |  | Metal stopper                           | ○  | ○                     |
| <b>ZEC</b> <sup>*1</sup> |  | Metal stopper with bumper <sup>*2</sup> | ○  | ○                     |
| <b>ZEJ</b> <sup>*1</sup> | Rubber stopper                               | Shock absorber/RJ                       | ○  | ○                     |
| <b>ZEM</b> <sup>*1</sup> |  | Metal stopper                           | ○  | ○                     |
| <b>ZHC</b> <sup>*1</sup> |  | Metal stopper with bumper <sup>*2</sup> | ○  | ○                     |
| <b>ZHF</b> <sup>*1</sup> | Shock absorber/RJ                            | Rubber stopper                          | ○  | ○                     |
| <b>ZHM</b> <sup>*1</sup> |  | Metal stopper                           | ○  | ○                     |
| <b>ZLC</b> <sup>*1</sup> |  | Metal stopper with bumper <sup>*2</sup> | ○  | ○                     |
| <b>ZLF</b> <sup>*1</sup> | Metal stopper                                | Rubber stopper                          | ○  | ○                     |
| <b>ZLJ</b> <sup>*1</sup> |  | Shock absorber/RJ                       | ○  | ○                     |

\*1 Only for use with a centralized adjuster  
 \*2 Not available for ø6  
 \*3 Without any symbol for the adjuster mounting position: The adjuster can be mounted afterward.

**Adjuster Options/Functional Option Combinations**

| Adjuster option   | Functional option Nil | 2 | 3 | 6 | 7 |
|---|-----------------------|---|---|---|---|
| <b>ZA, ZD, ZG, ZK, ZC, ZF, ZJ, ZM, ZBF, ZBJ, ZBM, ZEC, ZEJ, ZEM, ZHC, ZHF, ZHM, ZLC, ZLF, ZLJ</b> | ×                     | × | × | ○ | ○ |
| <b>ZB, ZH</b>   | ○                     | ○ | ○ | × | × |
| <b>ZE, ZL</b>   | ○                     | ○ | ○ | × | × |
| <b>ZN</b>   | ○                     | × | ○ | × | × |

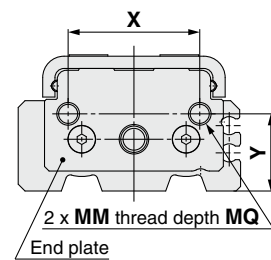
## Specifications

|                            |   |   |
|----------------------------|---|---|
| Series                     | Height interchangeable type   |   |
| Bore size [mm]             | 6, 8, 12, 16, 20, 25  |   |
| Adjuster mounting position | Standard  | Extension stroke end adjuster                         |
|                            | Centralized adjuster  | Adjuster on both ends, Retraction stroke end adjuster |
| Functional option type     | Without functional option (Standard), With end lock, Axial piping, Centralized adjuster, Centralized adjuster (Symmetric) |   |

\* Specifications other than the above are the same as the standard type.

## Dimensions

(Dimensions other than those shown below are the same as the standard type.)



## Dimensions [mm]

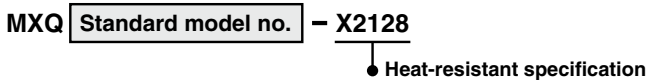
| Series       | X  | Y    | MM        | MQ |
|--------------|----|------|-----------|----|
| <b>MXQ6</b>  | 20 | 11   | M3 x 0.5  | 5  |
| <b>MXQ8</b>  | 24 | 13   | M4 x 0.7  | 6  |
| <b>MXQ12</b> | 29 | 17   | M5 x 0.8  | 6  |
| <b>MXQ16</b> | 29 | 23   | M6 x 1    | 10 |
| <b>MXQ20</b> | 35 | 28   | M6 x 1    | 13 |
| <b>MXQ25</b> | 44 | 33.5 | M8 x 1.25 | 15 |

\* There are no mounting holes in the center of the end plate.

# 12 Heat-resistant Specification (-10 to 100°C)

Symbol  
**-X2128**

Seal material and grease have been changed so that the product can be used at temperatures between -10 up to 100°C.



\* Magnet is built-in, but when using an auto switch, the acceptable temperature range becomes -10 to 60°C.  
 \* It is not possible to order a model with an auto switch.  
 \* For lubrication, specialized grease GR-F is recommended.

## Specifications

|                          |                              |
|--------------------------|------------------------------|
| Ambient temperature      | -10°C to 100°C (No freezing) |
| Seal material            | Fluororubber                 |
| Grease                   | Heat-resistant grease (GR-F) |
| Applicable adjuster type | Metal stopper                |

\* Specifications other than the above are the same as the standard type.

## Warning

### Precautions

Be aware that smoking cigarettes, etc. after your hands have come into contact with the grease used in this cylinder can create a gas that is hazardous to humans.

Double-ported type **MXQ□A**  
 Low thrust with high rigidity type **MXQ□B**  
 Single side-ported type **MXQ□C**  
 Height interchangeable type **MXQ□**  
 Common Adjuster Options  
 Auto Switch Mounting  
 Made to Order  
 Model Selection



## 13 Dual Stroke Specification

Two cylinders can be integrated by connecting them in line, and the cylinder stroke can be controlled in two stages in both directions.

### How to Order

MXQ 12 A - 15 - 25 ZA - M9BWL - X2192 Dual stroke

**Bore size**

|    |
|----|
| 8  |
| 12 |
| 16 |
| 20 |
| 25 |

**Body option**  
**A** Double-ported type

|    | A stroke | B-A stroke |
|----|----------|------------|
| 5  | 15       | 15         |
|    | 25       | 25         |
|    | 35       | 35         |
|    | 45       | 45         |
| 10 | 10       | 20         |
|    | 20       | 30         |
|    | 30       | 40         |
|    | 40       | 40         |
| 15 | 15       | 15         |
|    | 25       | 25         |
|    | 35       | 35         |
|    | 45       | 45         |
| 20 | 20       | 20         |
|    | 30       | 30         |
| 25 | 25       | 25         |
|    | 25       | 25         |

**Auto switch**

**Nil** Without auto switch (Built-in magnet)

\* Applicable auto switches are the same as the standard product.

**Adjuster options**

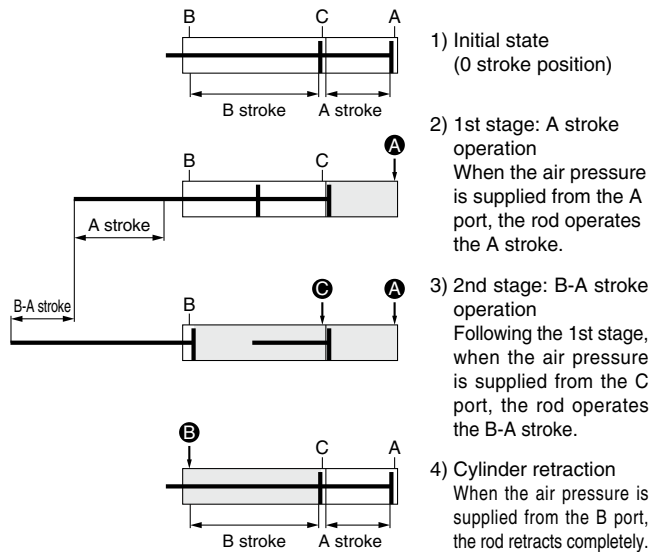
| Symbol | Adjuster type*2*3         |                           | Adjuster mounting position*1 |                       |
|--------|---------------------------|---------------------------|------------------------------|-----------------------|
|        | Extension stroke end      | Retraction stroke end     | Extension stroke end         | Retraction stroke end |
| Z      | Without adjuster          |                           |                              |                       |
| ZA     |                           |                           | ●                            | ●                     |
| ZB     | Metal stopper with bumper |                           | ●                            |                       |
| ZC     |                           |                           |                              | ●                     |
| ZD     |                           |                           | ●                            | ●                     |
| ZE     | Rubber stopper            |                           | ●                            |                       |
| ZF     |                           |                           |                              | ●                     |
| ZG     |                           |                           | ●                            | ●                     |
| ZH     | Shock absorber/RJ         |                           | ●                            |                       |
| ZJ     |                           |                           |                              | ●                     |
| ZK     |                           |                           | ●                            | ●                     |
| ZL     | Metal stopper             |                           | ●                            |                       |
| ZM     |                           |                           |                              | ●                     |
| ZBF    | Metal stopper             | Rubber stopper            | ●                            | ●                     |
| ZBJ    | stopper with bumper       | Shock absorber/RJ         | ●                            | ●                     |
| ZBM    |                           | Metal stopper             | ●                            | ●                     |
| ZEC    | Rubber stopper            | Metal stopper with bumper | ●                            | ●                     |
| ZEJ    | stopper                   | Shock absorber/RJ         | ●                            | ●                     |
| ZEM    |                           | Metal stopper             | ●                            | ●                     |
| ZHC    | Shock absorber/RJ         | Metal stopper with bumper | ●                            | ●                     |
| ZHF    |                           | Rubber stopper            | ●                            | ●                     |
| ZHM    |                           | Metal stopper             | ●                            | ●                     |
| ZLC    |                           | Metal stopper with bumper | ●                            | ●                     |
| ZLF    | Metal stopper             | Rubber stopper            | ●                            | ●                     |
| ZLJ    |                           | Shock absorber/RJ         | ●                            | ●                     |

### Specifications

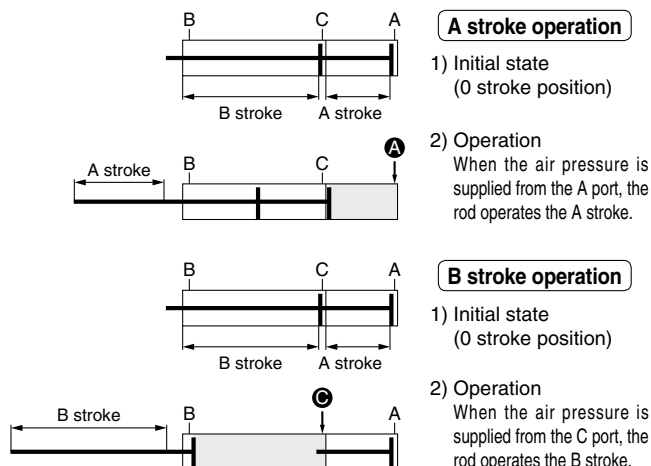
| Series                  | Double-ported type |
|-------------------------|--------------------|
| <b>Bore size [mm]</b>   | 8, 12, 16, 20, 25  |
| <b>Max. stroke [mm]</b> | 50                 |

\* Specifications other than the above are the same as the standard type.

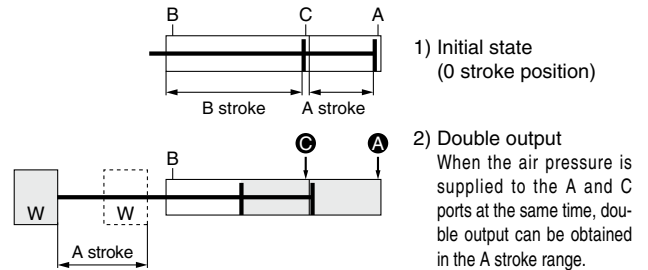
### Functional description of dual stroke cylinder



### A stroke or B stroke operation can be made individually.



### Double output is possible.



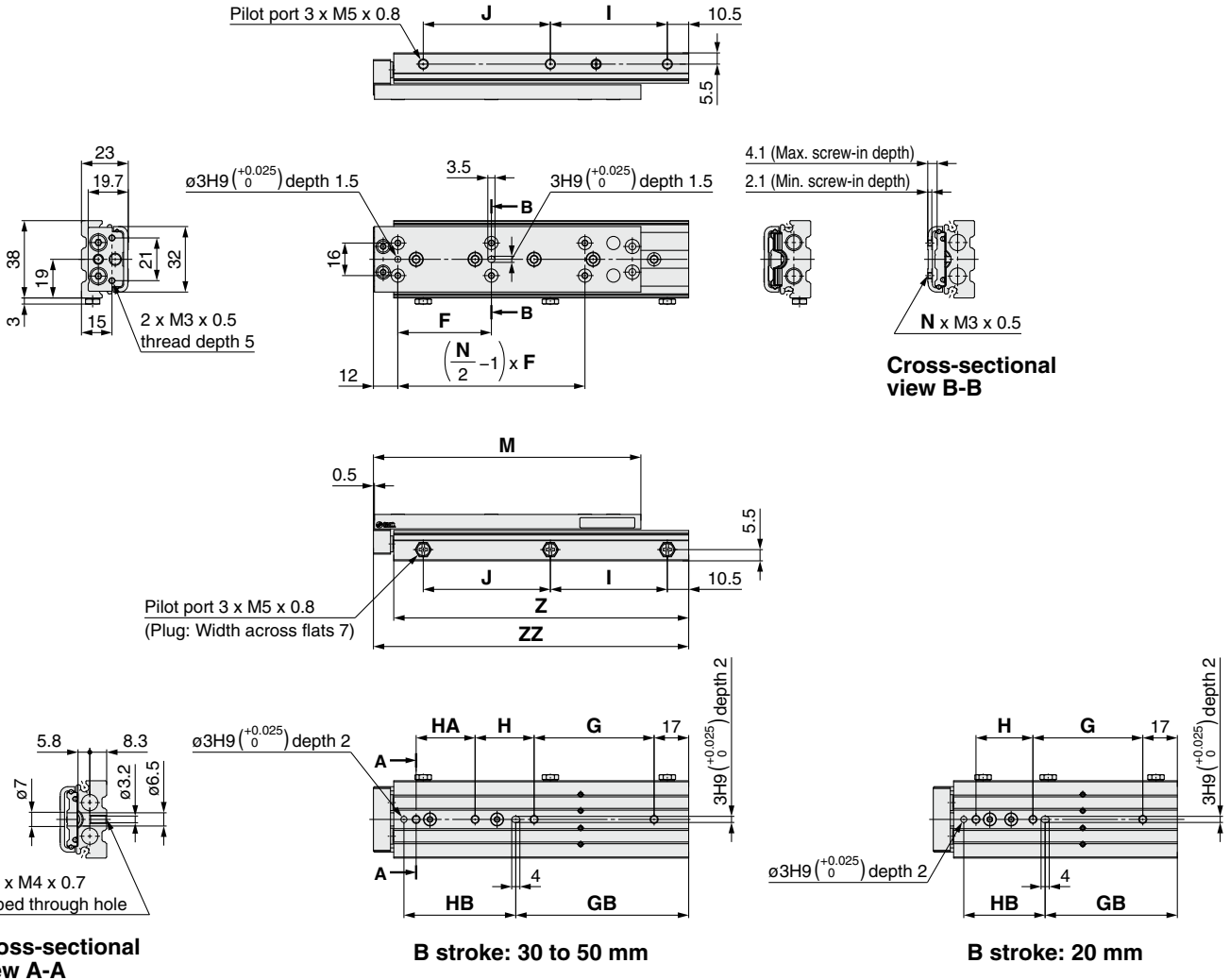
### Precautions

#### ⚠ Caution

- Do not supply air until the cylinder is fixed with the attached bolt.
- If air is supplied before securing the cylinder, the cylinder could lurch, posing a risk of bodily injury or damage to the peripheral equipment.
- Adjustment can be performed by the stroke adjusters at the positions of the extension stroke end and the retraction stroke end, but not at the center position.

**Dimensions**

**MXQ8A-□-□Z-X2192**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

**Dimensions/Weights**

| Stroke A | Stroke B | Model               | Dimension [mm] |   |    |    |    |    |    |    |      |      |       | Weight [g] |     |               |                                      |                      |                       |  |
|----------|----------|---------------------|----------------|---|----|----|----|----|----|----|------|------|-------|------------|-----|---------------|--------------------------------------|----------------------|-----------------------|--|
|          |          |                     | F              | N | G  | H  | HA | NN | GB | HB | I    | J    | M     | Z          | ZZ  | Standard type | Additional weight of adjuster option | Extension stroke end | Retraction stroke end |  |
| 5        | 20       | MXQ8A-5-15Z□-X2192  | 25             | 4 | 54 | 28 | —  | 3  | 65 | 40 | 52.5 | 32.5 | 78.5  | 110        | 120 | 230           |                                      |                      |                       |  |
| 10       |          | MXQ8A-10-10Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 5        | 30       | MXQ8A-5-25Z□-X2192  | 26             | 6 | 52 | 23 | 27 | 4  | 85 | 40 | 63   | 42   | 88.5  | 130        | 140 | 270           |                                      |                      |                       |  |
| 10       |          | MXQ8A-10-20Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 15       |          | MXQ8A-15-15Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 5        | 40       | MXQ8A-5-35Z□-X2192  | 32             | 6 | 40 | 31 | 31 | 4  | 70 | 55 | 52.5 | 52.5 | 104.5 | 130        | 140 | 280           | 15                                   | 8                    |                       |  |
| 10       |          | MXQ8A-10-30Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 15       |          | MXQ8A-15-25Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 20       |          | MXQ8A-20-20Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 5        | 50       | MXQ8A-5-45Z□-X2192  | 46             | 6 | 59 | 29 | 29 | 4  | 85 | 55 | 57.5 | 62.5 | 131.5 | 145        | 155 | 330           |                                      |                      |                       |  |
| 10       |          | MXQ8A-10-40Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 15       |          | MXQ8A-15-35Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 20       |          | MXQ8A-20-30Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |
| 25       |          | MXQ8A-25-25Z□-X2192 |                |   |    |    |    |    |    |    |      |      |       |            |     |               |                                      |                      |                       |  |

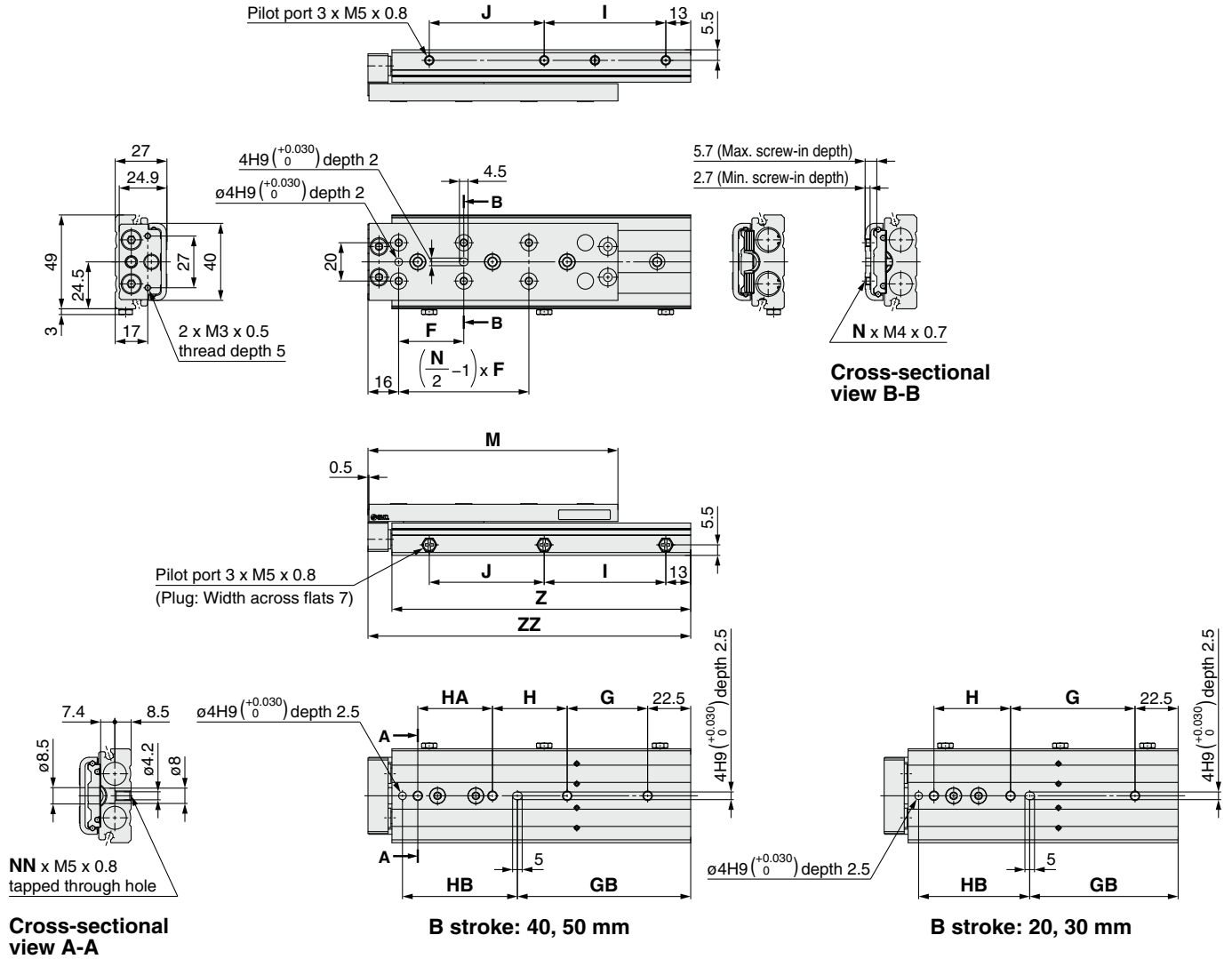
\* The first stage stroke adjustment cannot be performed.  
\* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

# MXQ Series

## 13 Dual Stroke Specification

### Dimensions

#### MXQ12A-□-□Z-X2192



### Dimensions/Weights

| Stroke A | Stroke B | Model                | Dimension [mm] |   |    |    |    |    |      |    |      |    |       | Weight [g] |       |               |                                      |                       |
|----------|----------|----------------------|----------------|---|----|----|----|----|------|----|------|----|-------|------------|-------|---------------|--------------------------------------|-----------------------|
|          |          |                      | F              | N | G  | H  | HA | NN | GB   | HB | I    | J  | M     | Z          | ZZ    | Standard type | Additional weight of adjuster option | Retraction stroke end |
| 5        | 20       | MXQ12A-5-15Z□-X2192  | 28             | 4 | 53 | 32 | —  | 3  | 67.5 | 48 | 56.5 | 32 | 92.5  | 121        | 133.5 | 420           | 30<br>(25)*1                         | 16                    |
| 10       |          | MXQ12A-10-10Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 5        | 30       | MXQ12A-5-25Z□-X2192  | 38             | 4 | 65 | 40 | —  | 3  | 77.5 | 58 | 68.5 | 40 | 102.5 | 141        | 153.5 | 480           |                                      |                       |
| 10       |          | MXQ12A-10-20Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       | 460           |                                      |                       |
| 15       |          | MXQ12A-15-15Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 5        | 40       | MXQ12A-5-35Z□-X2192  | 34             | 6 | 37 | 29 | 39 | 4  | 75.5 | 60 | 58.5 | 50 | 120.5 | 141        | 153.5 | 490           |                                      |                       |
| 10       |          | MXQ12A-10-30Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 15       |          | MXQ12A-15-25Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 20       |          | MXQ12A-20-20Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 5        | 50       | MXQ12A-5-45Z□-X2192  | 34             | 6 | 42 | 39 | 39 | 4  | 90.5 | 60 | 63.5 | 60 | 130.5 | 156        | 168.5 | 530           |                                      |                       |
| 10       |          | MXQ12A-10-40Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 15       |          | MXQ12A-15-35Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 20       |          | MXQ12A-20-30Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |
| 25       |          | MXQ12A-25-25Z□-X2192 |                |   |    |    |    |    |      |    |      |    |       |            |       |               |                                      |                       |

\*1 Value in ( ) is the additional weight of the shock absorber.

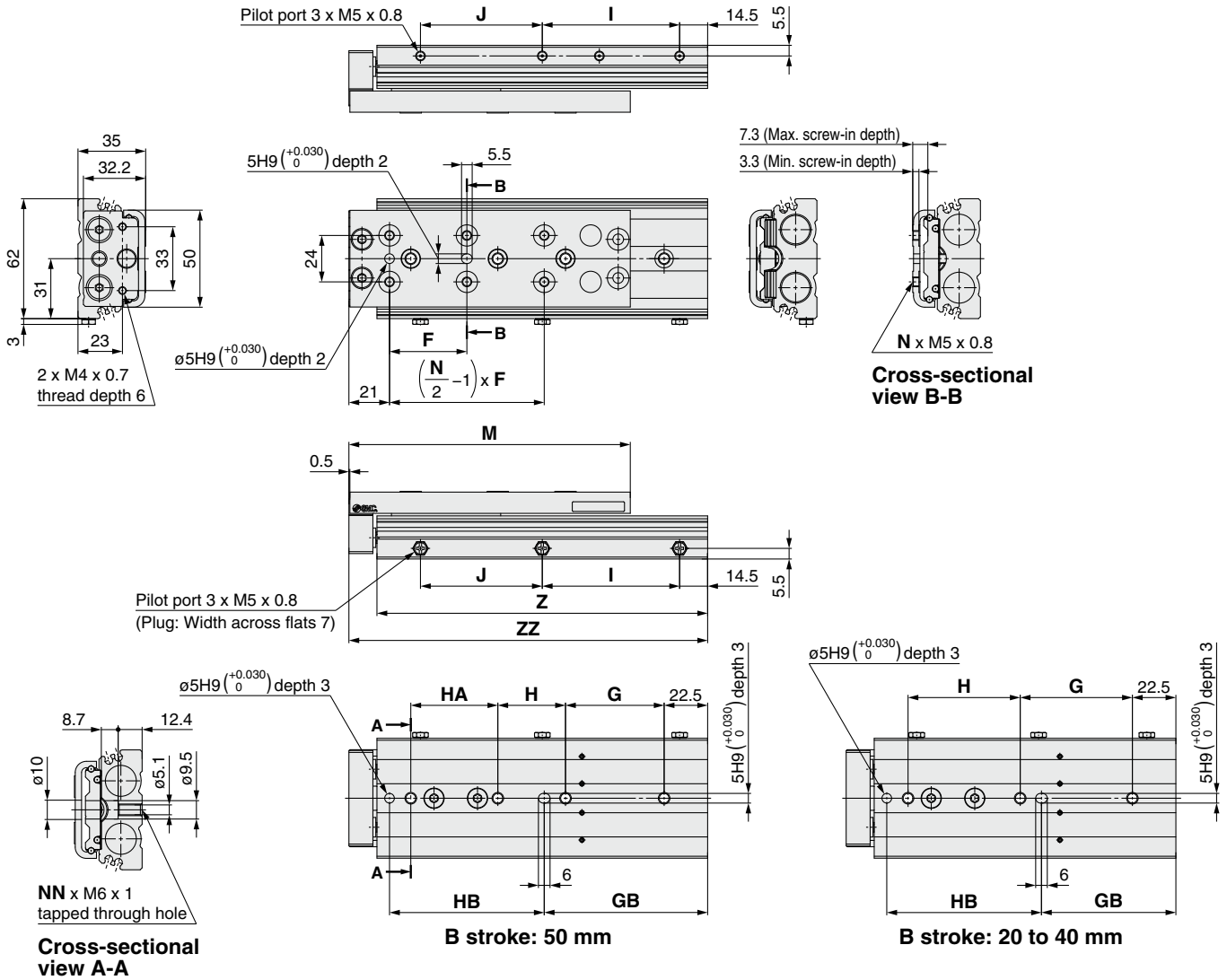
\* The first stage stroke adjustment cannot be performed.

\* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Symbol  
**-X2192**

**Dimensions**

**MXQ16A-□-□Z-X2192**



**Dimensions/Weights**

| Stroke A | Stroke B | Model                | Dimension [mm] |   |    |    |    |    |      |    |    |    |       |     |       | Weight [g]    |                                      |                       |     |  |  |  |
|----------|----------|----------------------|----------------|---|----|----|----|----|------|----|----|----|-------|-----|-------|---------------|--------------------------------------|-----------------------|-----|--|--|--|
|          |          |                      | F              | N | G  | H  | HA | NN | GB   | HB | I  | J  | M     | Z   | ZZ    | Standard type | Additional weight of adjuster option |                       |     |  |  |  |
|          |          |                      |                |   |    |    |    |    |      |    |    |    |       |     |       |               | Extension stroke end                 | Retraction stroke end |     |  |  |  |
| 5        | 20       | MXQ16A-5-15Z□-X2192  | 38             | 4 | 57 | 39 | —  | 3  | 71.5 | 58 | 60 | 39 | 108.5 | 136 | 150.5 | 760           | 50 (40) <sup>*1</sup>                | 30                    |     |  |  |  |
| 10       |          | MXQ16A-10-10Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 5        | 30       | MXQ16A-5-25Z□-X2192  | 48             | 4 | 68 | 48 | —  | 3  | 99.5 | 50 | 71 | 48 | 118.5 | 156 | 170.5 | 830           |                                      |                       |     |  |  |  |
| 10       |          | MXQ16A-10-20Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 15       |          | MXQ16A-15-15Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       | 820 |  |  |  |
| 5        | 40       | MXQ16A-5-35Z□-X2192  | 58             | 4 | 58 | 58 | —  | 3  | 69.5 | 80 | 61 | 58 | 135.5 | 156 | 170.5 | 860           |                                      |                       |     |  |  |  |
| 10       |          | MXQ16A-10-30Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 15       |          | MXQ16A-15-25Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 20       |          | MXQ16A-20-20Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 5        | 50       | MXQ16A-5-45Z□-X2192  | 40             | 6 | 51 | 35 | 45 | 4  | 84.5 | 80 | 71 | 63 | 145.5 | 171 | 185.5 | 920           |                                      |                       |     |  |  |  |
| 10       |          | MXQ16A-10-40Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 15       |          | MXQ16A-15-35Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 20       |          | MXQ16A-20-30Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |
| 25       |          | MXQ16A-25-25Z□-X2192 |                |   |    |    |    |    |      |    |    |    |       |     |       |               |                                      |                       |     |  |  |  |

\*1 Value in ( ) is the additional weight of the shock absorber.  
 \* The first stage stroke adjustment cannot be performed.  
 \* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

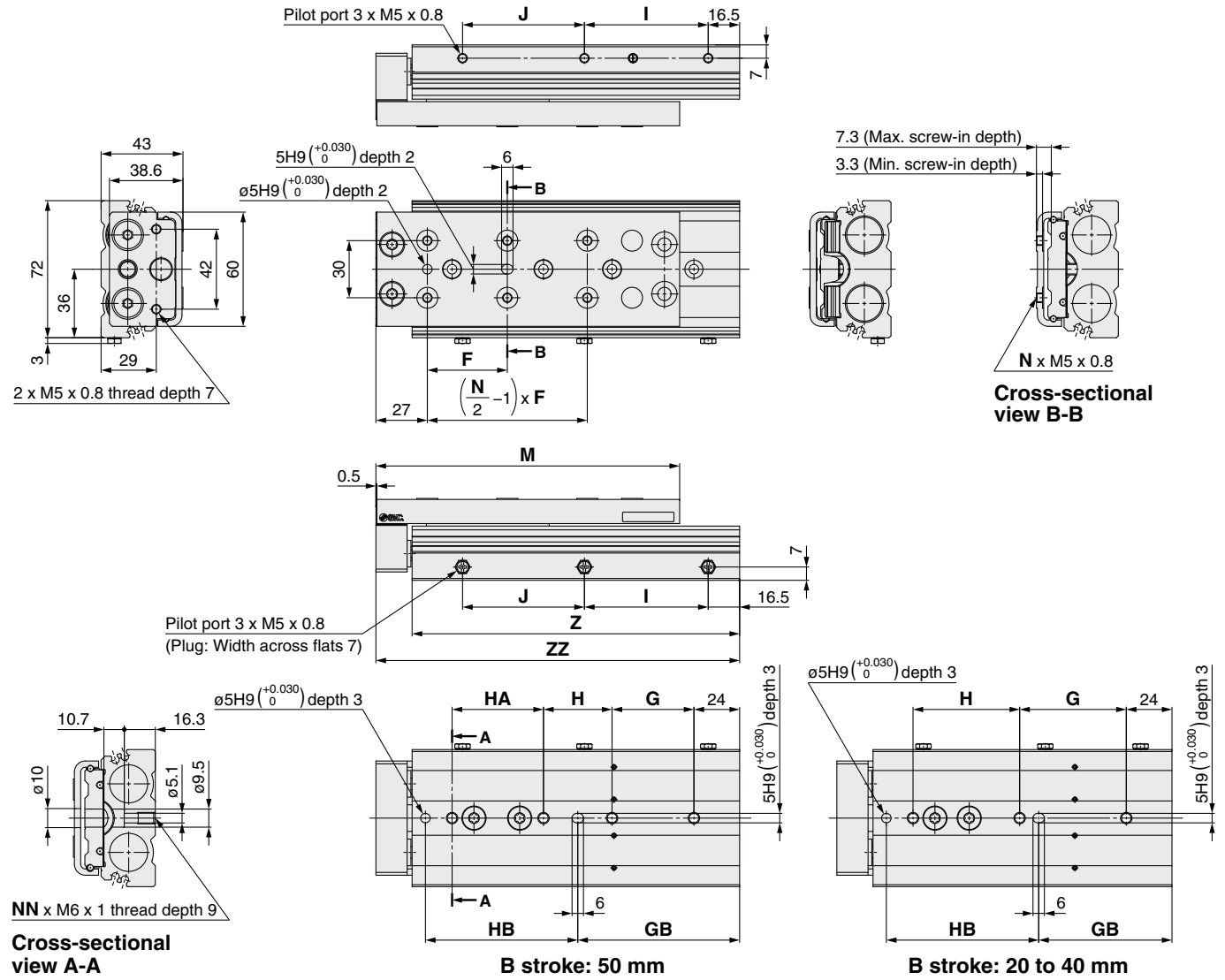
Made to Order

Model Selection

## 13 Dual Stroke Specification

### Dimensions

#### MXQ20A-□-□Z-X2192



### Dimensions/Weights

| Stroke A | Stroke B | Model                | Dimension [mm] |   |    |    |    |    |    |    |    |    |       |     |     | Weight [g]    |                                      |                       |
|----------|----------|----------------------|----------------|---|----|----|----|----|----|----|----|----|-------|-----|-----|---------------|--------------------------------------|-----------------------|
|          |          |                      | F              | N | G  | H  | HA | NN | GB | HB | I  | J  | M     | Z   | ZZ  | Standard type | Additional weight of adjuster option | Retraction stroke end |
| 5        | 20       | MXQ20A-5-15Z□-X2192  | 40             | 4 | 46 | 46 | —  | 3  | 60 | 70 | 60 | 34 | 123.5 | 137 | 156 | 1200          | 85<br>(55)*1                         | 50<br>(80)*1          |
| 10       |          | MXQ20A-10-10Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 5        | 30       | MXQ20A-5-25Z□-X2192  | 48             | 4 | 66 | 46 | —  | 3  | 80 | 70 | 68 | 46 | 133.5 | 157 | 176 | 1300          |                                      |                       |
| 10       |          | MXQ20A-10-20Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ20A-15-15Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 5        | 40       | MXQ20A-5-35Z□-X2192  | 58             | 4 | 56 | 56 | —  | 3  | 70 | 80 | 58 | 56 | 143.5 | 157 | 176 | 1300          |                                      |                       |
| 10       |          | MXQ20A-10-30Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ20A-15-25Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 20       |          | MXQ20A-20-20Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 5        | 50       | MXQ20A-5-45Z□-X2192  | 42             | 6 | 43 | 36 | 48 | 4  | 85 | 80 | 65 | 64 | 159.5 | 172 | 191 | 1500          |                                      |                       |
| 10       |          | MXQ20A-10-40Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ20A-15-35Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 20       |          | MXQ20A-20-30Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |
| 25       |          | MXQ20A-25-25Z□-X2192 |                |   |    |    |    |    |    |    |    |    |       |     |     |               |                                      |                       |

\*1 Value in ( ) is additional weight of the shock absorber.

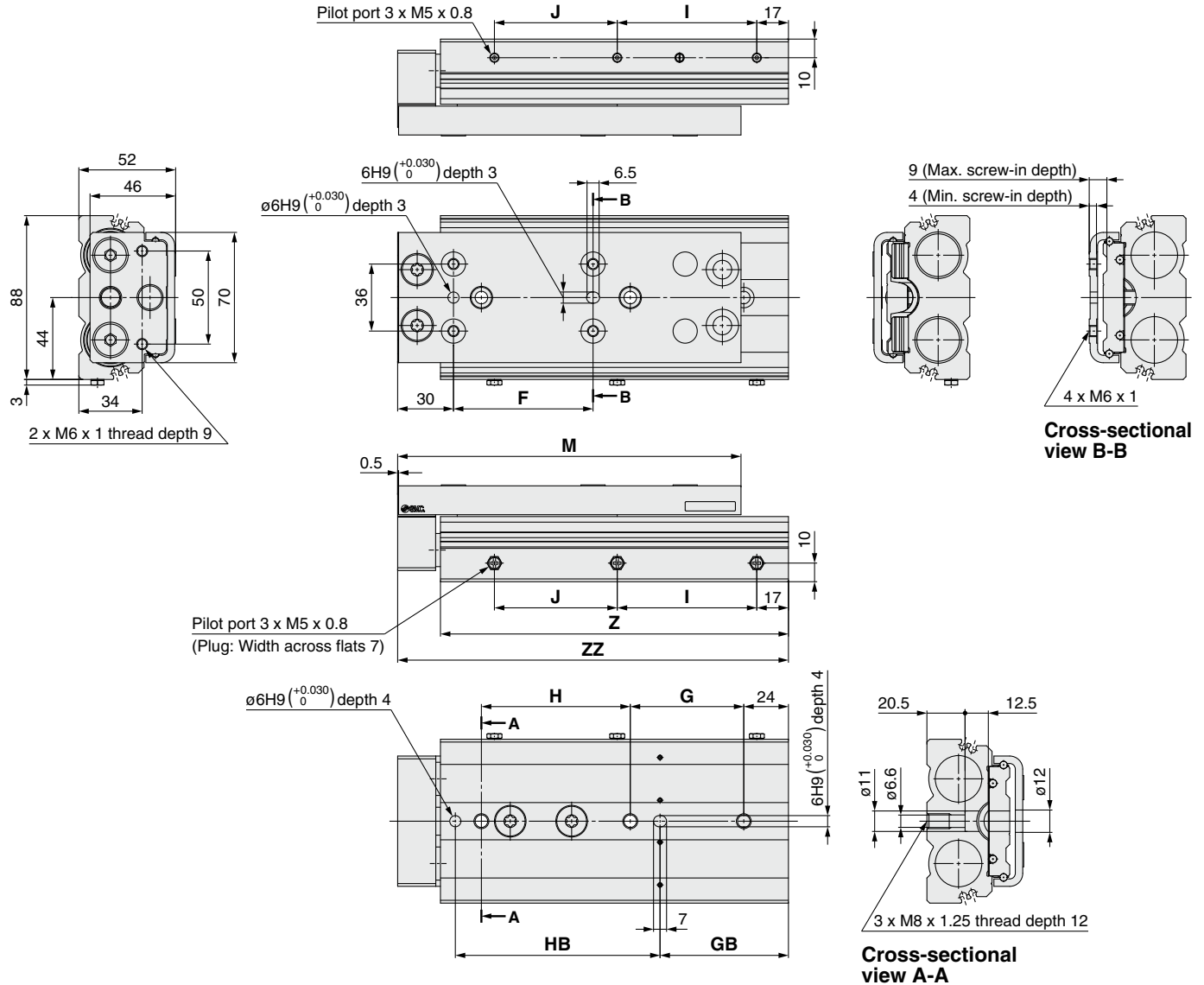
\* The first stage stroke adjustment cannot be performed.

\* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Symbol  
**-X2192**

**Dimensions**

**MXQ25A-□-□Z-X2192**



**Dimensions/Weights**

| Stroke A | Stroke B | Model                | Dimension [mm] |    |    |    |     |    |    |       |     |     | Weight [g]    |                                      |                       |
|----------|----------|----------------------|----------------|----|----|----|-----|----|----|-------|-----|-----|---------------|--------------------------------------|-----------------------|
|          |          |                      | F              | G  | H  | GB | HB  | I  | J  | M     | Z   | ZZ  | Standard type | Additional weight of adjuster option |                       |
|          |          |                      |                |    |    |    |     |    |    |       |     |     |               | Extension stroke end                 | Retraction stroke end |
| 5        | 20       | MXQ25A-5-15Z□-X2192  | 46             | 51 | 55 | 64 | 80  | 70 | 36 | 141.5 | 152 | 175 | 2000          | 135<br>(120)*1                       | 80                    |
| 10       |          | MXQ25A-10-10Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 5        | 30       | MXQ25A-5-25Z□-X2192  | 55             | 71 | 55 | 84 | 80  | 72 | 54 | 151.5 | 172 | 195 | 2200          |                                      |                       |
| 10       |          | MXQ25A-10-20Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ25A-15-15Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 5        | 40       | MXQ25A-5-35Z□-X2192  | 65             | 61 | 65 | 74 | 90  | 62 | 64 | 161.5 | 172 | 195 | 2100          |                                      |                       |
| 10       |          | MXQ25A-10-30Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ25A-15-25Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 20       |          | MXQ25A-20-20Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 5        | 50       | MXQ25A-5-45Z□-X2192  | 75             | 61 | 80 | 69 | 110 | 75 | 66 | 184.5 | 187 | 210 | 2500          |                                      |                       |
| 10       |          | MXQ25A-10-40Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 15       |          | MXQ25A-15-35Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 20       |          | MXQ25A-20-30Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |
| 25       |          | MXQ25A-25-25Z□-X2192 |                |    |    |    |     |    |    |       |     |     |               |                                      |                       |

\*1 Value in ( ) is the additional weight of the shock absorber.  
 \* The first stage stroke adjustment cannot be performed.  
 \* For dimensions of the model with an adjuster option, refer to pages 139 and 140.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

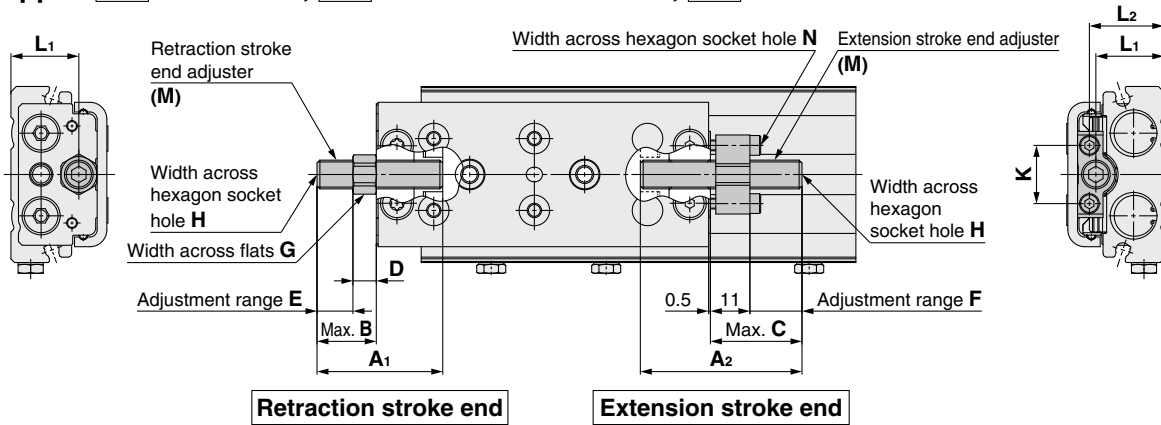
## 13 Dual Stroke Specification

### Dimensions

#### MXQ□□A-□□Z□-X2192 With adjuster option

Metal stopper with bumper **ZA**: Both ends, **ZB**: Extension stroke end, **ZC**: Retraction stroke end

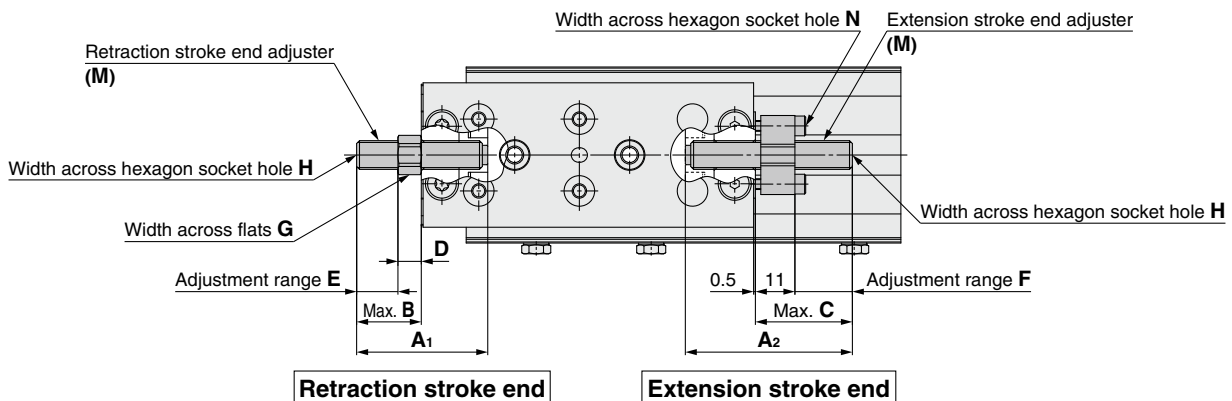
Metal stopper **ZK**: Both ends, **ZL**: Extension stroke end, **ZM**: Retraction stroke end



#### Metal Stopper with Bumper/Metal Stopper

| Model          | A <sub>1</sub> | A <sub>2</sub> | B  | C  | D   | E  | F  | G  | H | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   | Metal stopper with bumper<br>Adjuster part no. |                                   | Metal stopper<br>Adjuster part no. |                                   |
|----------------|----------------|----------------|----|----|-----|----|----|----|---|------|----------------|----------------|-----------|-----|--|-----------------------------------|------------------------------------|-----------------------------------|
|                |                |                |    |    |     |    |    |    |   |      |                |                |           |     | Extension stroke end<br>adjuster               | Retraction stroke<br>end adjuster | Extension stroke<br>end adjuster   | Retraction stroke<br>end adjuster |
| MXQ8A-□-X2192  | 30             | 40             | 15 | 23 | 5   | 10 | 12 | 8  | 3 | 13   | 16.6           | 18.2           | M6 x 0.75 | 2.5 | MXQA-CS8-X2202                                 | MXQA-CT8                          | MXQA-DS8-X2202                     | MXQA-DT8                          |
| MXQ12A-□-X2192 | 35             | 45             | 17 | 26 | 6.5 | 10 | 14 | 10 | 4 | 16.2 | 18.9           | 20.7           | M8 x 1    | 2.5 | MXQA-CS12-X2202                                | MXQA-CT12                         | MXQA-DS12-X2202                    | MXQA-DT12                         |
| MXQ16A-□-X2192 | 40             | 50             | 18 | 27 | 8   | 10 | 15 | 12 | 5 | 20   | 25.2           | 26.9           | M10 x 1   | 3   | MXQA-CS16-X2202                                | MXQA-CT16                         | MXQA-DS16-X2202                    | MXQA-DT16                         |
| MXQ20A-□-X2192 | 47             | 57             | 21 | 30 | 10  | 10 | 18 | 17 | 6 | 27   | 31.5           | 34.1           | M12 x 1   | 4   | MXQA-CS20-X2202                                | MXQA-CT20                         | MXQA-DS20-X2202                    | MXQA-DT20                         |
| MXQ25A-□-X2192 | 54             | 64             | 22 | 31 | 11  | 11 | 20 | 19 | 6 | 27   | 38.3           | 40.8           | M14 x 1.5 | 5   | MXQA-CS25-X2202                                | MXQA-CT25                         | MXQA-DS25-X2202                    | MXQA-DT25                         |

Rubber stopper **ZD**: Both ends, **ZE**: Extension stroke end, **ZF**: Retraction stroke end



#### Rubber Stopper

| Model          | A <sub>1</sub> | A <sub>2</sub> | B  | C  | D   | E  | F  | G  | H | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   | Adjuster part no.                |                                   |
|----------------|----------------|----------------|----|----|-----|----|----|----|---|------|----------------|----------------|-----------|-----|----------------------------------|-----------------------------------|
|                |                |                |    |    |     |    |    |    |   |      |                |                |           |     | Extension stroke end<br>adjuster | Retraction stroke<br>end adjuster |
| MXQ8A-□-X2192  | 31.5           | 41.5           | 17 | 25 | 5   | 11 | 13 | 8  | 3 | 13   | 16.6           | 18.2           | M6 x 0.75 | 2.5 | MXQA-AS8-X2202                   | MXQA-AT8                          |
| MXQ12A-□-X2192 | 36.5           | 46.5           | 18 | 27 | 6.5 | 11 | 16 | 10 | 4 | 16.2 | 18.9           | 20.7           | M8 x 1    | 2.5 | MXQA-AS12-X2202                  | MXQA-AT12                         |
| MXQ16A-□-X2192 | 41.5           | 51.5           | 20 | 28 | 8   | 11 | 17 | 12 | 5 | 20   | 25.2           | 26.9           | M10 x 1   | 3   | MXQA-AS16-X2202                  | MXQA-AT16                         |
| MXQ20A-□-X2192 | 48.5           | 58.5           | 22 | 31 | 10  | 12 | 20 | 17 | 6 | 27   | 31.5           | 34.1           | M12 x 1   | 4   | MXQA-AS20-X2202                  | MXQA-AT20                         |
| MXQ25A-□-X2192 | 55.5           | 65.5           | 24 | 33 | 11  | 12 | 21 | 19 | 6 | 27   | 38.3           | 40.8           | M14 x 1.5 | 5   | MXQA-AS25-X2202                  | MXQA-AT25                         |

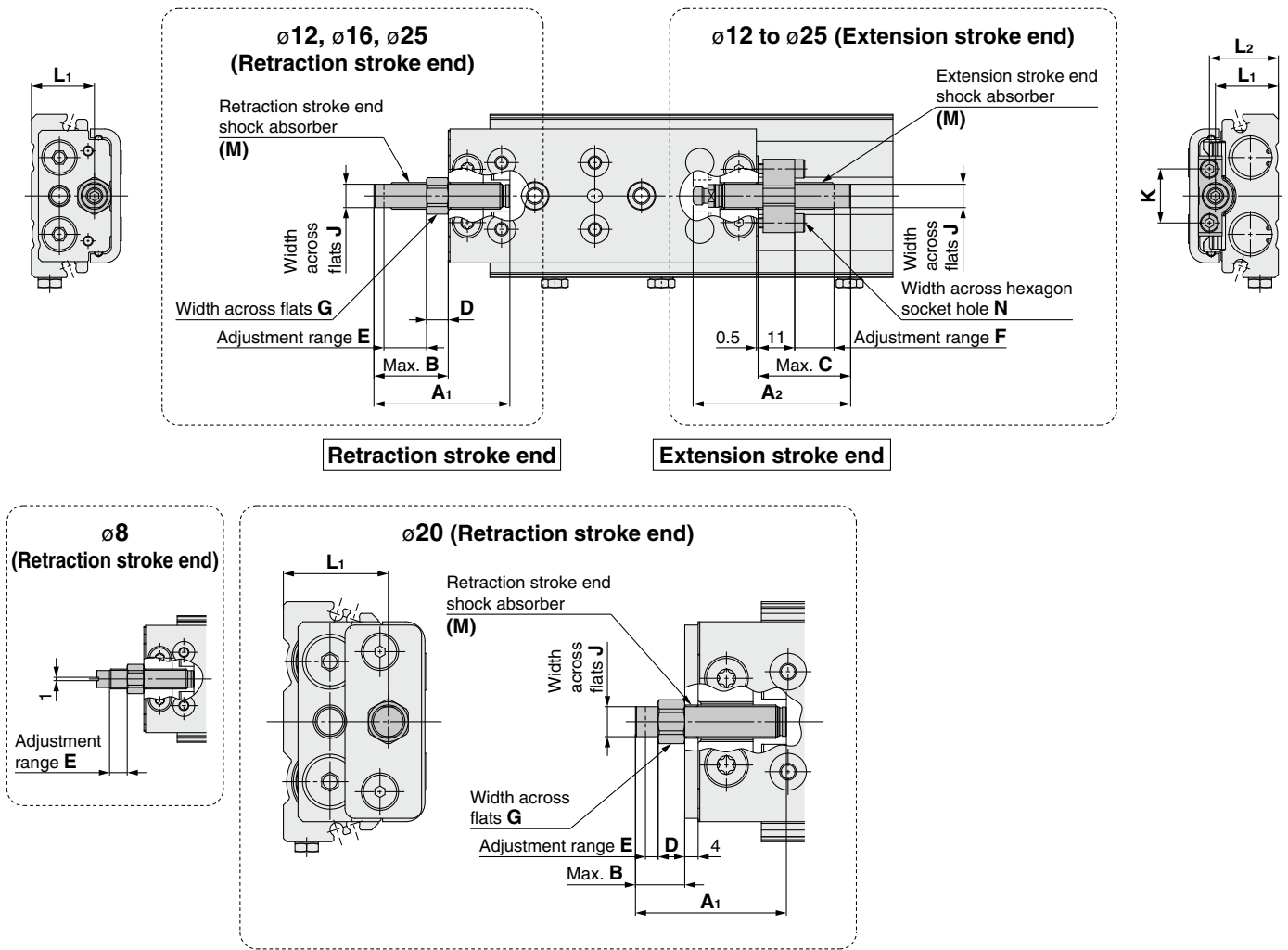


Symbol  
**-X2192**

**Dimensions**

**MXQ□□A-□□Z□-X2192 With adjuster option**

Shock absorber/RJ **ZG**: Both ends, **ZH**: Extension stroke end, **ZJ**: Retraction stroke end



**Shock Absorber/RJ**

| Model          | A <sub>1</sub> | A <sub>2</sub> | B  | C  | D   | E  | F  | G  | J  | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   | Adjuster part no.             |                                |
|----------------|----------------|----------------|----|----|-----|----|----|----|----|------|----------------|----------------|-----------|-----|-------------------------------|--------------------------------|
|                |                |                |    |    |     |    |    |    |    |      |                |                |           |     | Extension stroke end adjuster | Retraction stroke end adjuster |
| MXQ8A-□-X2192  | 29.3           | —              | 15 | —  | 5   | 5  | —  | 8  | —  | —    | —              | —              | M6 x 0.75 | —   | —*1                           | MXQA-JT8                       |
| MXQ12A-□-X2192 | 40.8           | 47.3           | 23 | 29 | 6.5 | 12 | 11 | 10 | 7  | 16.2 | 18.9           | 20.7           | M8 x 1    | 2.5 | MXQA-JS12-X2202               | MXQA-JT12                      |
| MXQ16A-□-X2192 | 45.3           | 52.8           | 24 | 30 | 8   | 12 | 11 | 12 | 9  | 20   | 25.2           | 26.9           | M10 x 1   | 3   | MXQA-JS16-X2202               | MXQA-JT16                      |
| MXQ20A-□-X2192 | 45.3           | 52.8           | 15 | 26 | 8   | 3  | 6  | 12 | 9  | 27   | 31.5           | 34.1           | M10 x 1   | 4   | MXQA-JS20-X2202               | MXQA-JT20P                     |
| MXQ25A-□-X2192 | 67.1           | 77.1           | 36 | 45 | 11  | 21 | 25 | 19 | 12 | 27   | 38.3           | 40.8           | M14 x 1.5 | 5   | MXQA-JS25-X2202               | MXQA-JT25                      |

\*1 Both ends and extension stroke end options are not available for ø8.

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

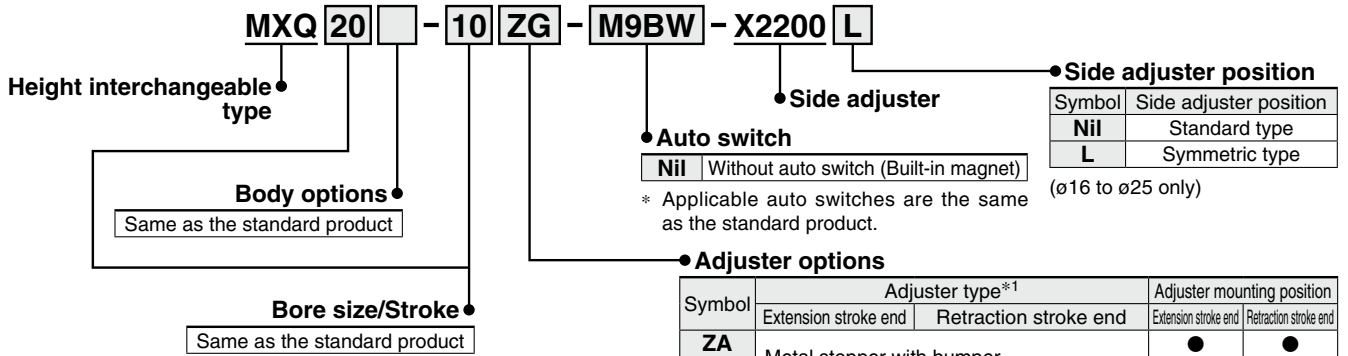
Made to Order

Model Selection

## 14 Side Adjuster Specification

Specifications in which the extension stroke end adjuster is installed on the side of the body

### How to Order



### Specifications

| Series | Height interchangeable type |
|--------|-----------------------------|
|        |                             |

\* Specifications other than the above are the same as the standard type.

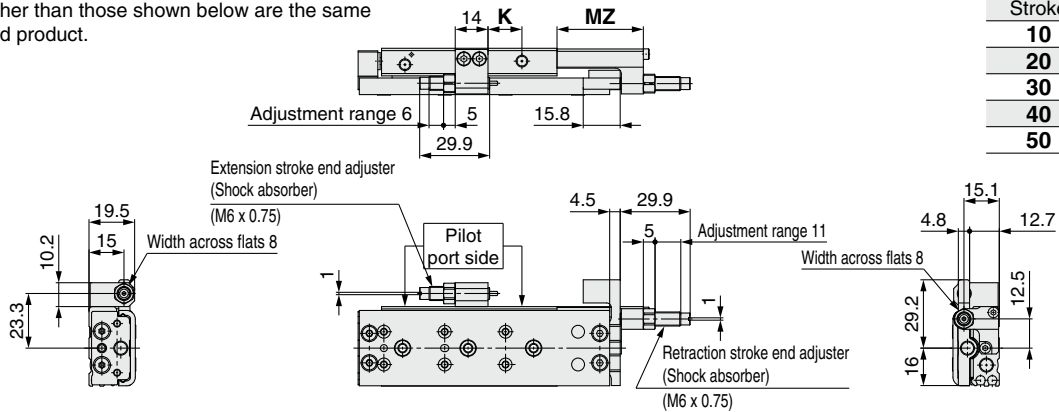
| Symbol | Adjuster type*1           |                           | Adjuster mounting position |                       |
|--------|---------------------------|---------------------------|----------------------------|-----------------------|
|        | Extension stroke end      | Retraction stroke end     | Extension stroke end       | Retraction stroke end |
| ZA     | Metal stopper with bumper | Rubber stopper            | ●                          | ●                     |
| ZB     |                           |                           | ●                          | ▧                     |
| ZD     | Rubber stopper            | Shock absorber/RJ         | ●                          | ●                     |
| ZE     |                           |                           | ●                          | ▧                     |
| ZG     | Shock absorber/RJ         | Metal stopper with bumper | ●                          | ●                     |
| ZH     |                           |                           | ●                          | ▧                     |
| ZBF    | Metal stopper with bumper | Rubber stopper            | ●                          | ●                     |
| ZBJ    | Rubber stopper            | Shock absorber/RJ         | ●                          | ●                     |
| ZEC    | Metal stopper with bumper | Rubber stopper            | ●                          | ●                     |
| ZEJ    | Shock absorber/RJ         | Metal stopper with bumper | ●                          | ●                     |
| ZHC    | Shock absorber/RJ         | Rubber stopper            | ●                          | ●                     |
| ZHF    |                           |                           | ●                          | ●                     |

\*1 The metal stopper with bumper option is not available for ø6.

### Dimensions

#### Standard type/MXQ6-  ZG-X2200: Shock absorber/RJ

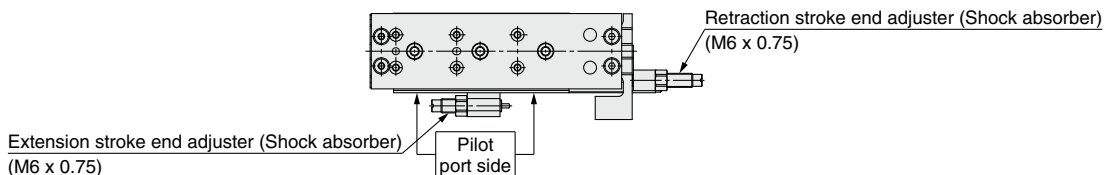
\* Dimensions other than those shown below are the same as the standard product.



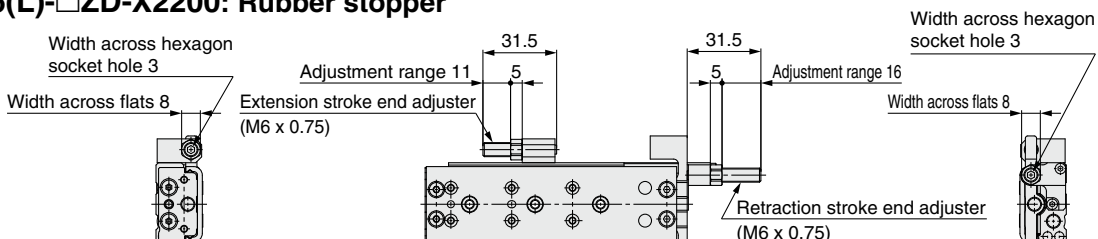
#### Dimensions

| Stroke | K    | MZ   |
|--------|------|------|
| 10     | 7.5  | 18.9 |
| 20     | 7.5  | 28.9 |
| 30     | 6.5  | 36.9 |
| 40     | 14.5 | 36.9 |
| 50     | 24.5 | 36.9 |

#### Symmetric type/MXQ6L-  ZG-X2200: Shock absorber/RJ



#### MXQ6(L)-  ZD-X2200: Rubber stopper

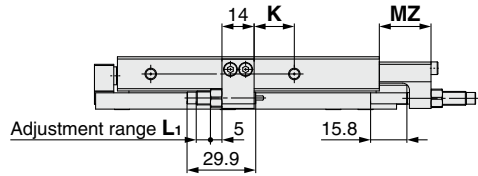


Symbol  
**-X2200**

**Dimensions**

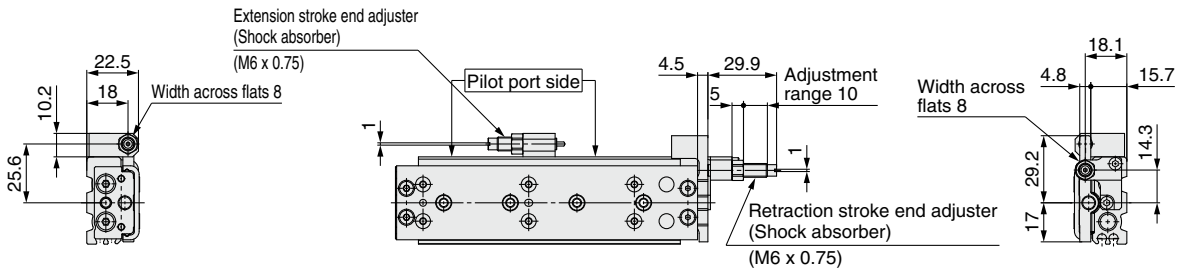
**Standard type/MXQ8-□ZG-X2200: Shock absorber/RJ**

\* Dimensions other than those shown below are the same as the standard product.

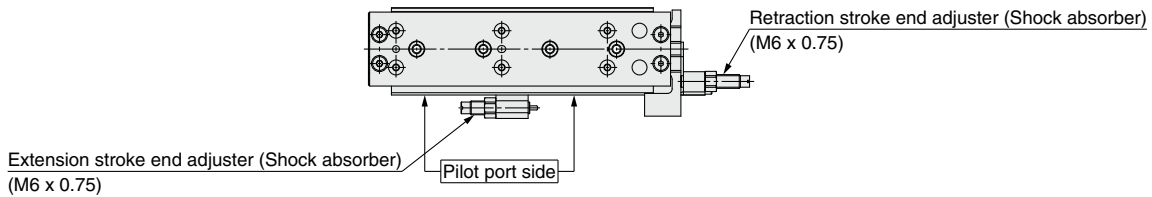


**Dimensions**

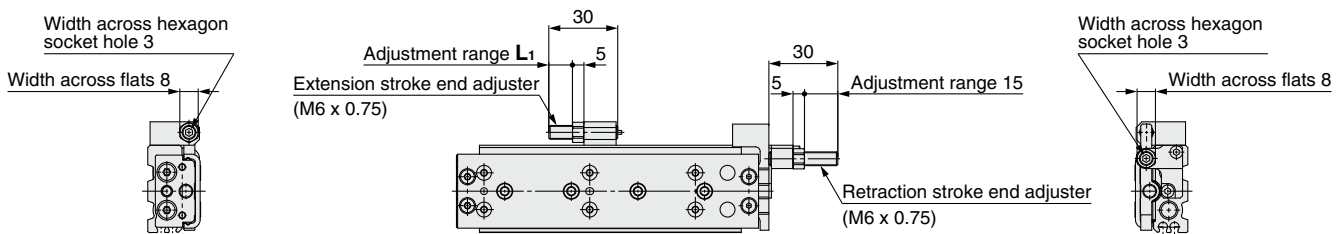
| Stroke | K    | MZ   | Extension stroke end adjuster adjustment range |                                  |                                  |
|--------|------|------|--|----------------------------------|----------------------------------|
|        |      |      | Metal stopper with bumper<br>L <sub>1</sub>    | Rubber stopper<br>L <sub>1</sub> | Shock absorber<br>L <sub>1</sub> |
| 10     | 5.5  | 22.5 | 9  | 10                               | 5                                |
| 20     | 10.5 | 22.5 | 10   | 11                               | 6                                |
| 30     | 20   | 22.5 | 10   | 11                               | 6                                |
| 40     | 24.5 | 22.5 | 10   | 11                               | 6                                |
| 50     | 17.5 | 22.5 | 10   | 11                               | 6                                |
| 75     | 46.5 | 46.5 | 10   | 11                               | 6                                |



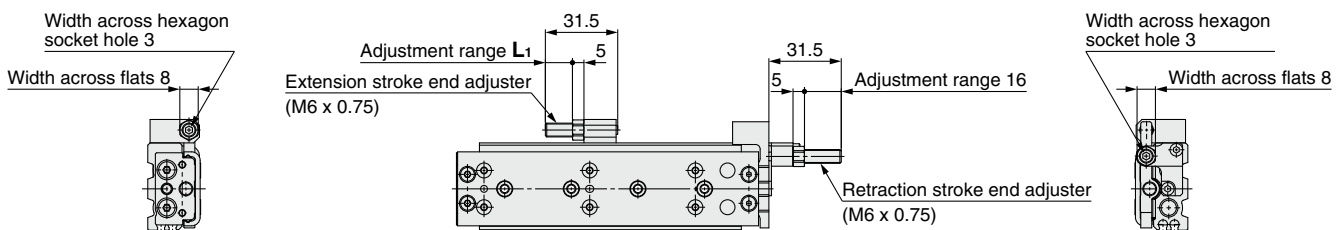
**Symmetric type/MXQ8L-□ZG-X2200: Shock absorber/RJ**



**MXQ8(L)-□ZA-X2200: Metal stopper with bumper**



**MXQ8(L)-□ZD-X2200: Rubber stopper**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

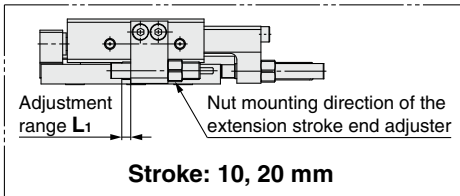
Model Selection

## 14 Side Adjuster Specification

### Dimensions

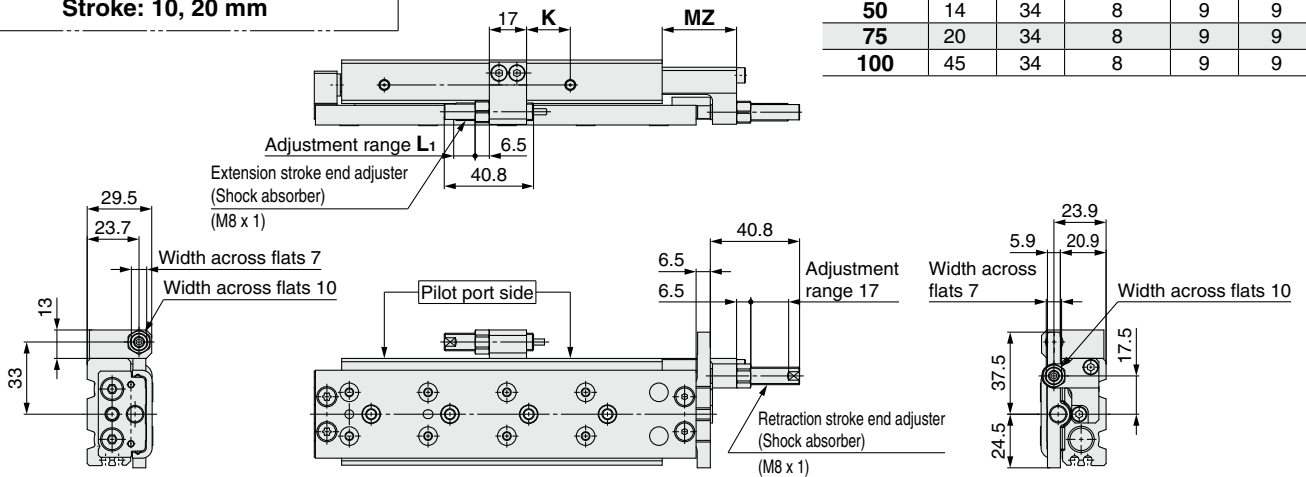
#### Standard type/MXQ12-□ZG-X2200: Shock absorber/RJ

\* Dimensions other than those shown below are the same as the standard product.

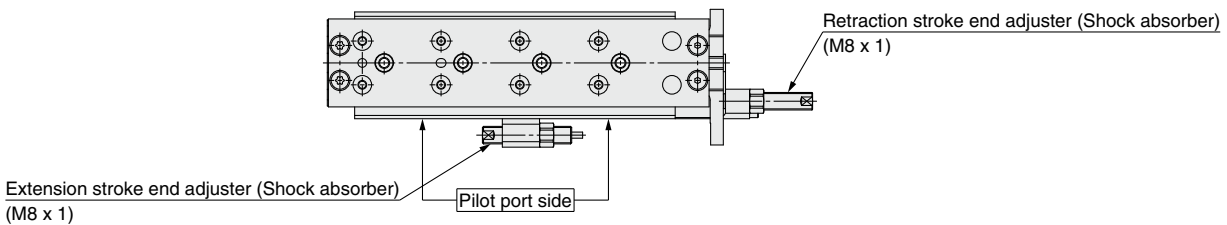


#### Dimensions

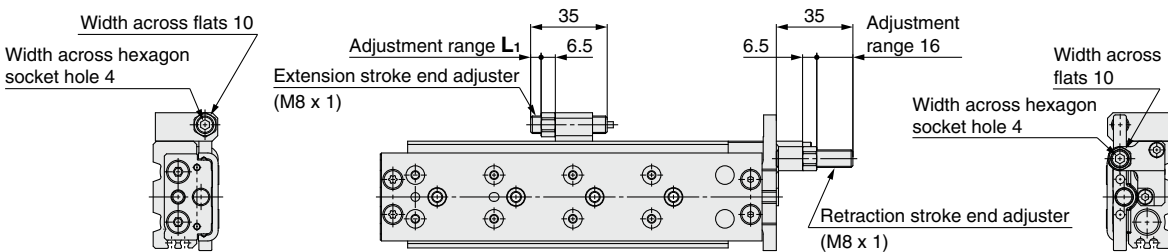
| Stroke | K   | MZ | Extension stroke end adjuster adjustment range |                      |                      |
|--------|-----|----|--|----------------------|----------------------|
|        |     |    | Metal stopper with bumper $L_1$                | Rubber stopper $L_1$ | Shock absorber $L_1$ |
| 10     | 5.5 | 26 | 3  | 4                    | 4                    |
| 20     | 5.5 | 34 | 3  | 4                    | 4                    |
| 30     | 5.5 | 34 | 4  | 6                    | 5                    |
| 40     | 5.5 | 34 | 6  | 8                    | 7                    |
| 50     | 14  | 34 | 8  | 9                    | 9                    |
| 75     | 20  | 34 | 8  | 9                    | 9                    |
| 100    | 45  | 34 | 8  | 9                    | 9                    |



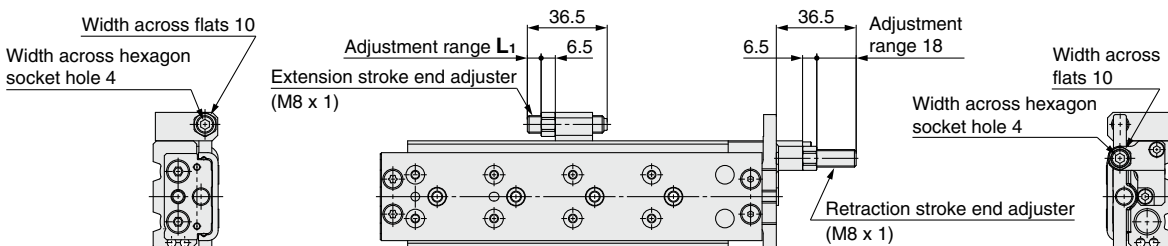
#### Symmetric type/MXQ12L-□ZG-X2200: Shock absorber/RJ



#### MXQ12(L)-□ZA-X2200: Metal stopper with bumper



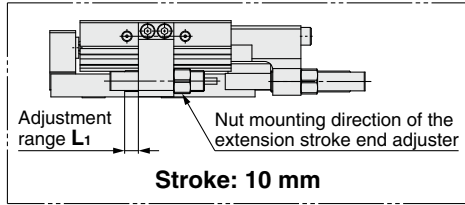
#### MXQ12(L)-□ZD-X2200: Rubber stopper



**Dimensions**

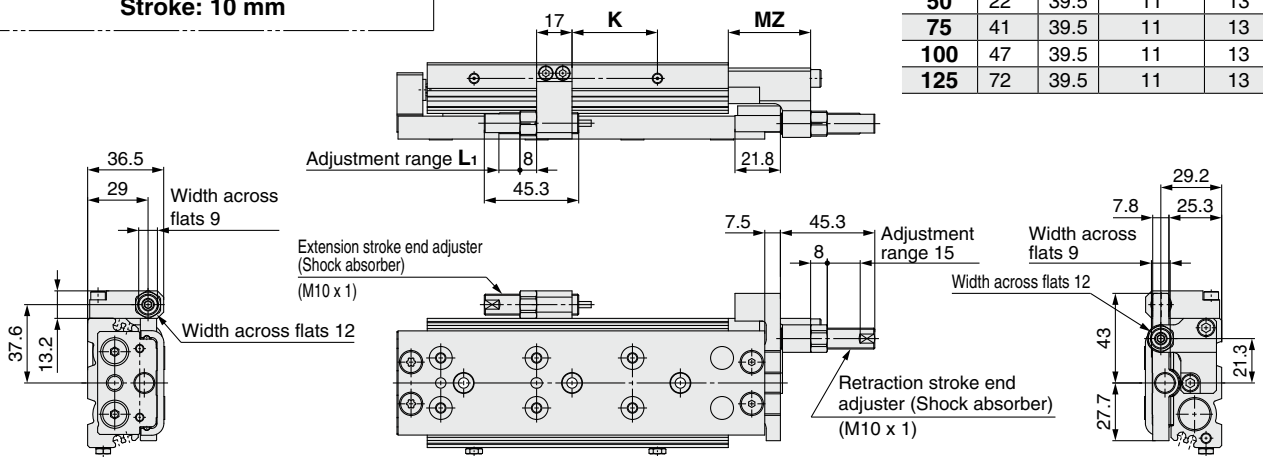
**Standard type/MXQ16-□ZG-X2200: Shock absorber/RJ**

\* Dimensions other than those shown below are the same as the standard product.



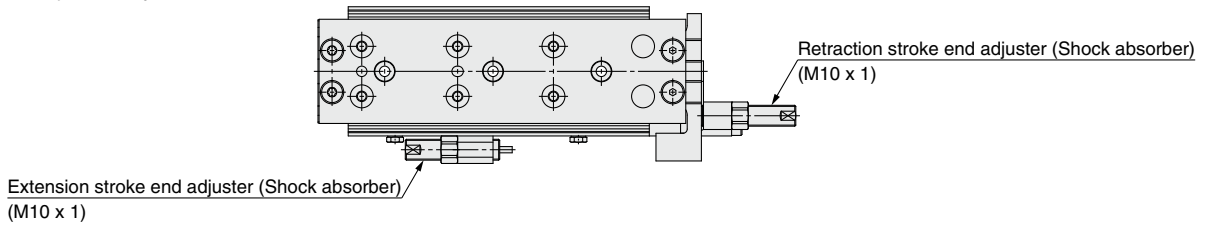
**Dimensions**

| Stroke | K   | MZ   | Extension stroke end adjuster adjustment range |                |                |
|--------|-----|------|--|----------------|----------------|
|        |     |      | Metal stopper with bumper                      | Rubber stopper | Shock absorber |
|        |     |      | L <sub>1</sub>                                 | L <sub>1</sub> | L <sub>1</sub> |
| 10     | 5.5 | 33.5 | 8  | 9              | 6              |
| 20     | 5.5 | 39.5 | 11   | 12             | 9              |
| 30     | 14  | 39.5 | 11   | 13             | 10             |
| 40     | 17  | 39.5 | 11   | 13             | 10             |
| 50     | 22  | 39.5 | 11   | 13             | 10             |
| 75     | 41  | 39.5 | 11   | 13             | 10             |
| 100    | 47  | 39.5 | 11   | 13             | 10             |
| 125    | 72  | 39.5 | 11   | 13             | 10             |

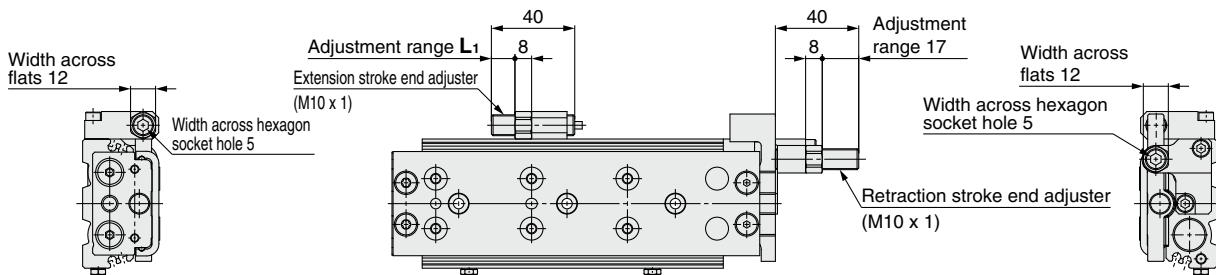


**Symmetric type/MXQ16-□ZG-X2200L: Shock absorber/RJ**

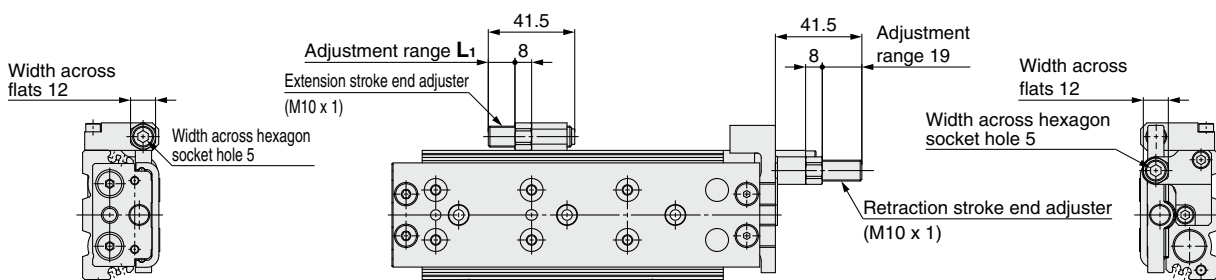
\* Only the side adjuster is symmetric.



**MXQ16-□ZA-X2200(L): Metal stopper with bumper**



**MXQ16-□ZD-X2200(L): Rubber stopper**



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

## 14 Side Adjuster Specification

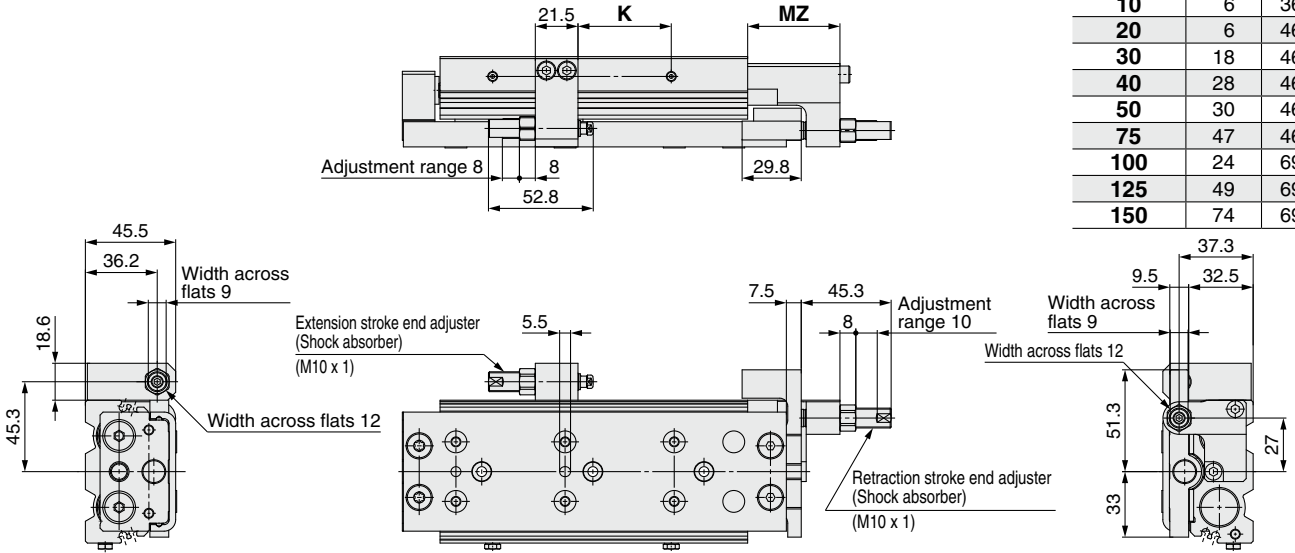
### Dimensions

#### Standard type/MXQ20-□ZG-X2200: Shock absorber/RJ

\* Dimensions other than those shown below are the same as the standard product.

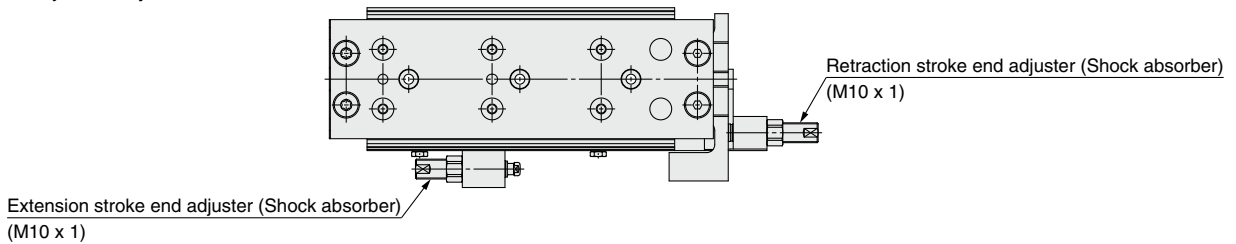
#### Dimensions

| Stroke | K  | MZ   |
|--------|----|------|
| 10     | 6  | 36.5 |
| 20     | 6  | 46.5 |
| 30     | 18 | 46.5 |
| 40     | 28 | 46.5 |
| 50     | 30 | 46.5 |
| 75     | 47 | 46.5 |
| 100    | 24 | 69.5 |
| 125    | 49 | 69.5 |
| 150    | 74 | 69.5 |

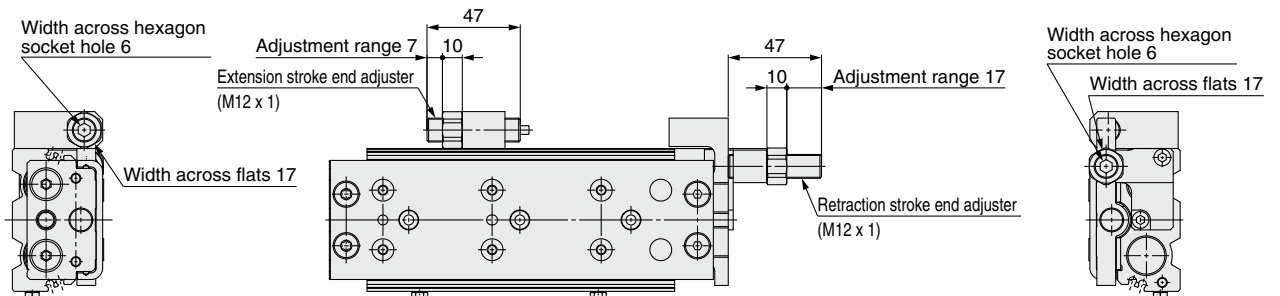


#### Symmetric type/MXQ20-□ZG-X2200L: Shock absorber/RJ

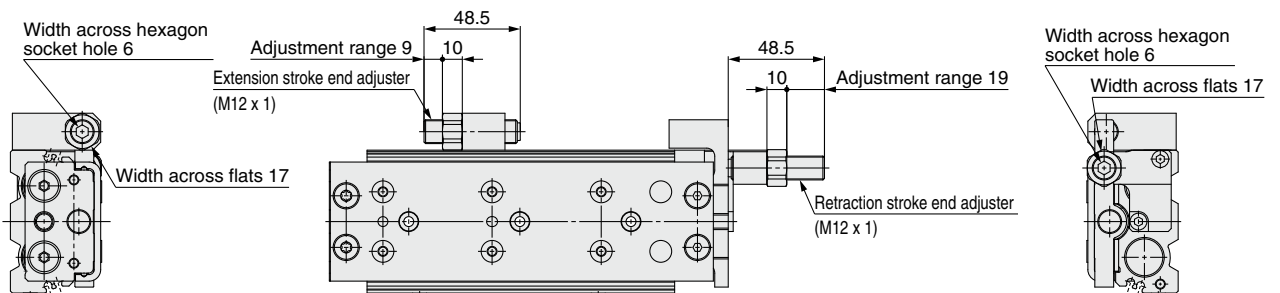
\* Only the side adjuster is symmetric.



#### MXQ20-□ZA-X2200(L): Metal stopper with bumper



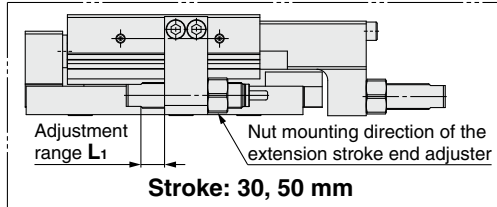
#### MXQ20-□ZD-X2200(L): Rubber stopper



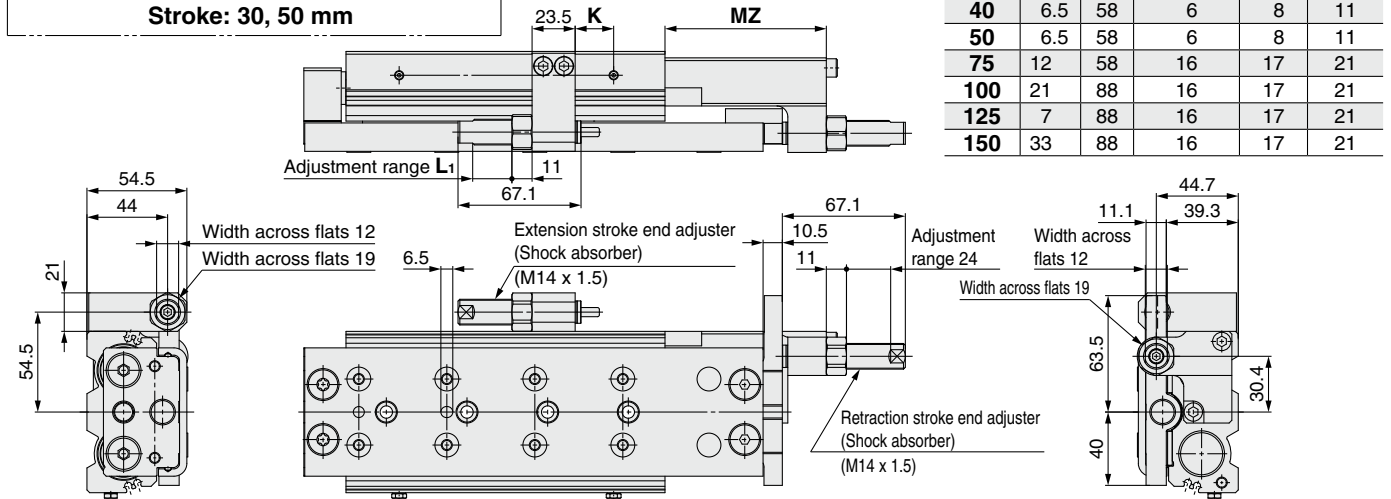
Symbol  
**-X2200**

**Dimensions**

**Standard type/MXQ25-□ZG-X2200: Shock absorber/RJ**



\* Dimensions other than those shown below are the same as the standard product.

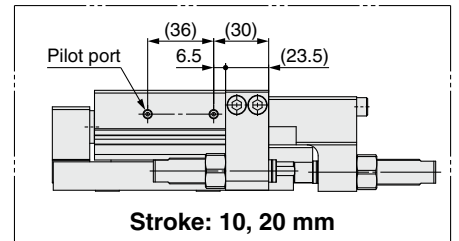
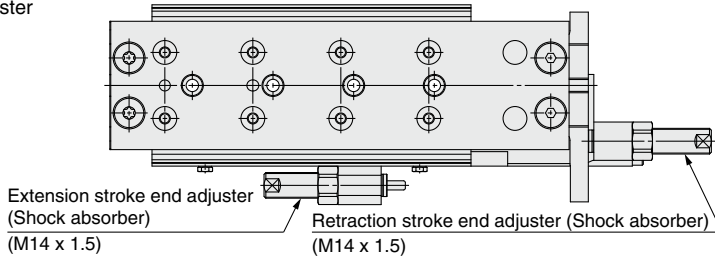


**Dimensions**

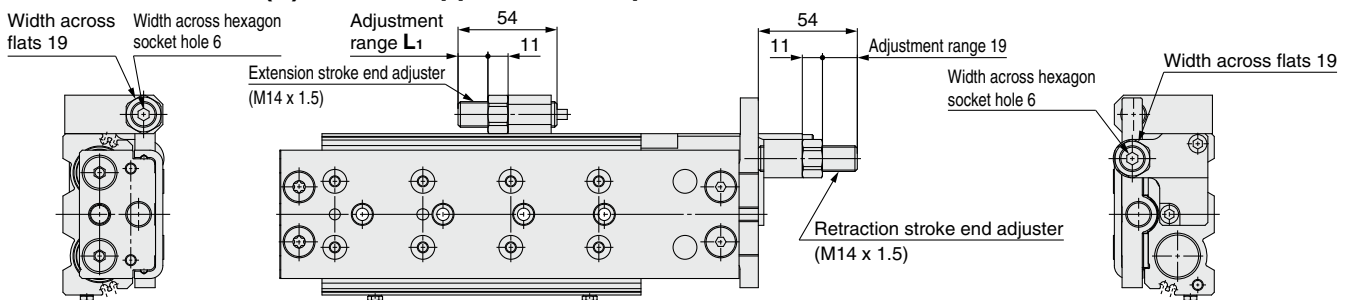
| Stroke | K   | MZ | Extension stroke end adjuster adjustment range |                |                |
|--------|-----|----|--|----------------|----------------|
|        |     |    | Metal stopper with bumper                      | Rubber stopper | Shock absorber |
|        |     |    | $L_1$  | $L_1$          | $L_1$          |
| 10     | —*1 | 48 | 15   | 16             | 20             |
| 20     | —*1 | 58 | 15   | 16             | 20             |
| 30     | 6.5 | 58 | 7  | 9              | 12             |
| 40     | 6.5 | 58 | 6  | 8              | 11             |
| 50     | 6.5 | 58 | 6  | 8              | 11             |
| 75     | 12  | 58 | 16   | 17             | 21             |
| 100    | 21  | 88 | 16   | 17             | 21             |
| 125    | 7   | 88 | 16   | 17             | 21             |
| 150    | 33  | 88 | 16   | 17             | 21             |

**Symmetric type/MXQ25-□ZG-X2200L: Shock absorber/RJ**

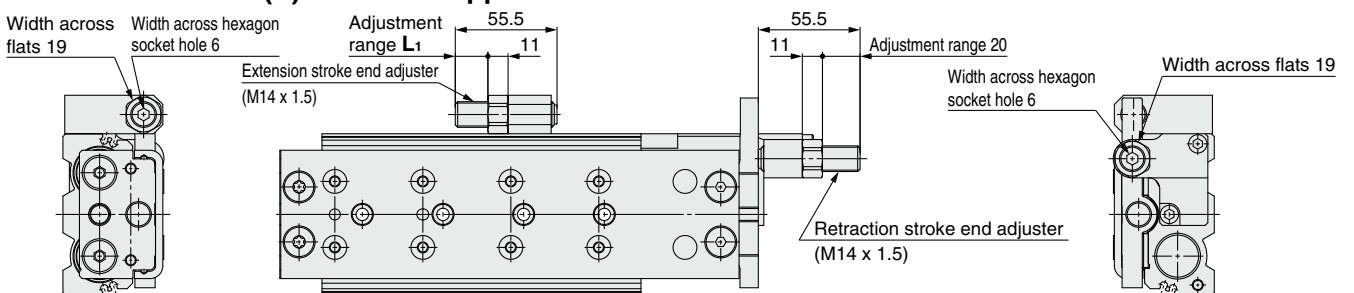
\* Only the side adjuster is symmetric.



**MXQ25-□ZA-X2200(L): Metal stopper with bumper**



**MXQ25-□ZD-X2200(L): Rubber stopper**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

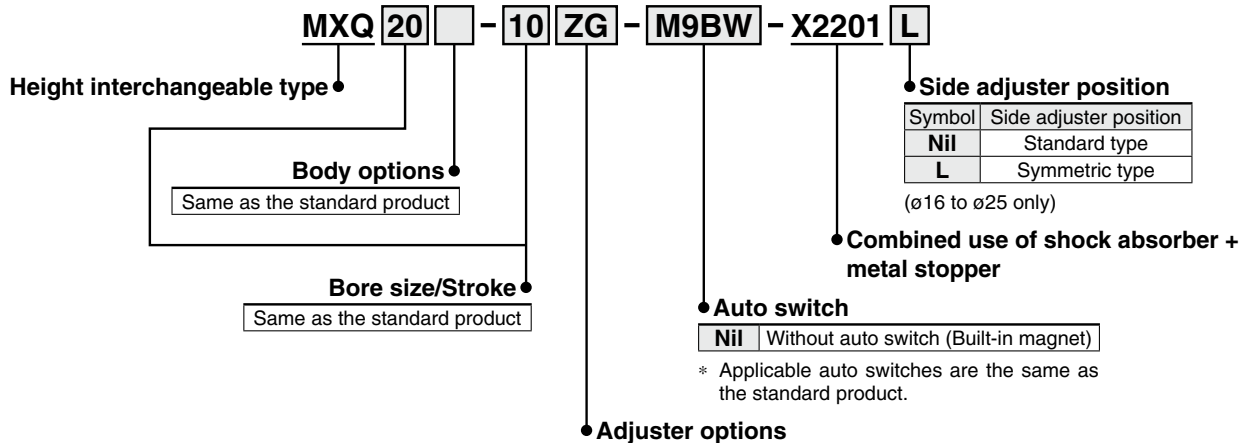
Model Selection



## 15 Combined Use of Shock Absorber + Metal Stopper

These are specifications in which shock absorbers and metal stoppers are used in combination with the extension stroke end adjuster and the retraction stroke end adjuster. The shock absorbers absorb energy, and the metal stoppers are used for positioning.

### How to Order



### Specifications

| Series | Height interchangeable type |
|--------|-----------------------------|
|--------|-----------------------------|

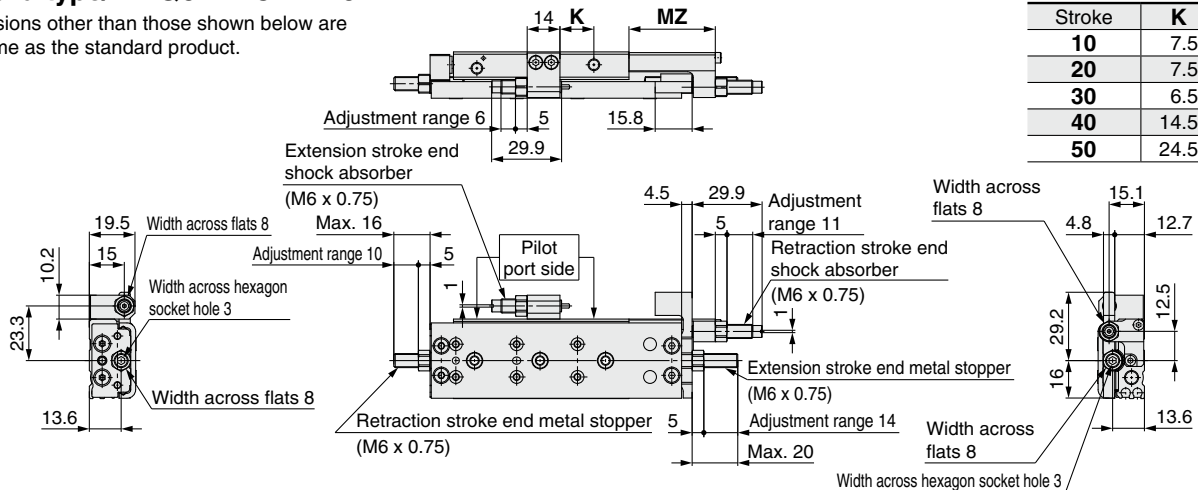
\* Specifications other than the above are the same as the standard type.

| Symbol | Adjuster type     | Adjuster mounting position |                       |
|--------|-------------------|----------------------------|-----------------------|
|        |                   | Extension stroke end       | Retraction stroke end |
| ZG     | Shock absorber/RJ | ●                          | ●                     |
| ZH     | + Metal stopper   | ●                          | ●                     |
| ZJ     |                   | ●                          | ●                     |

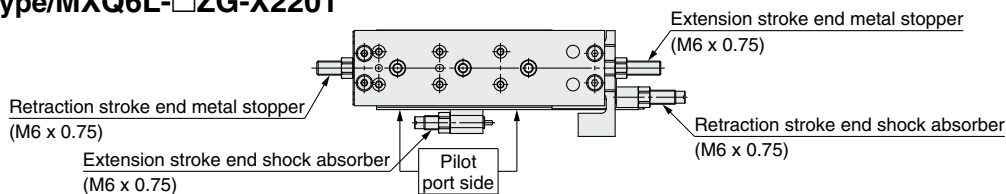
### Dimensions

#### Standard type/MXQ6-□ZG-X2201

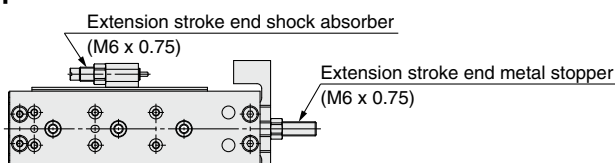
\* Dimensions other than those shown below are the same as the standard product.



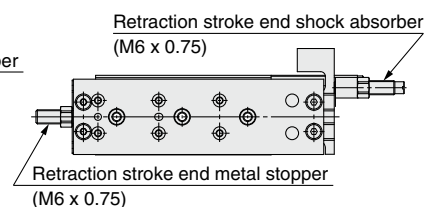
#### Symmetric type/MXQ6L-□ZG-X2201



#### Standard type/MXQ6-□ZH-X2201



#### Standard type/MXQ6-□ZJ-X2201



Symbol  
**-X2201**

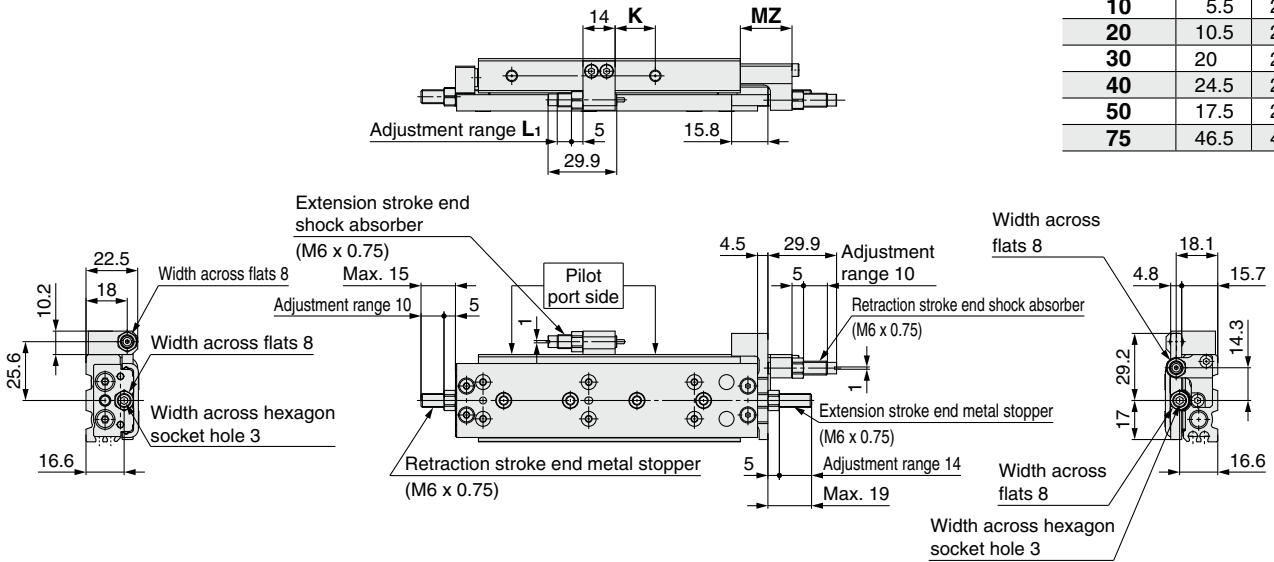
**Dimensions**

**Standard type/MXQ8-□ZG-X2201**

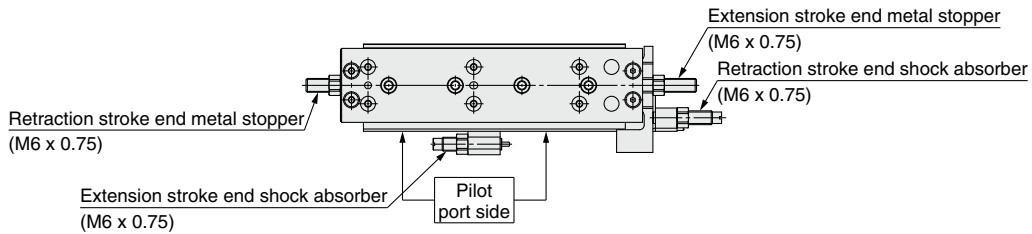
\* Dimensions other than those shown below are the same as the standard product.

**Dimensions**

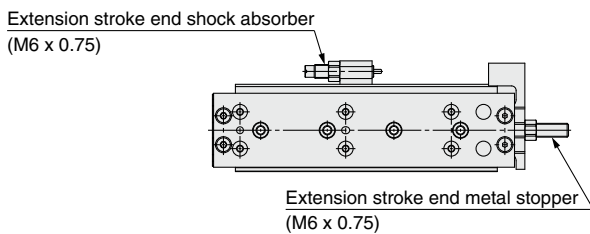
| Stroke | K    | MZ   |
|--------|------|------|
| 10     | 5.5  | 22.5 |
| 20     | 10.5 | 22.5 |
| 30     | 20   | 22.5 |
| 40     | 24.5 | 22.5 |
| 50     | 17.5 | 22.5 |
| 75     | 46.5 | 46.5 |



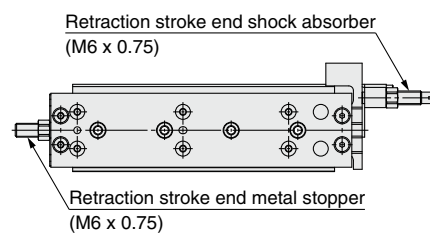
**Symmetric type/MXQ8L-□ZG-X2201**



**Standard type/MXQ8-□ZH-X2201**



**Standard type/MXQ8-□ZJ-X2201**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

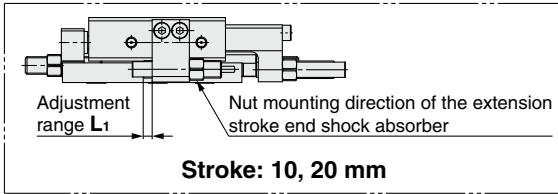
Model Selection

## 15 Combined Use of Shock Absorber + Metal Stopper

### Dimensions

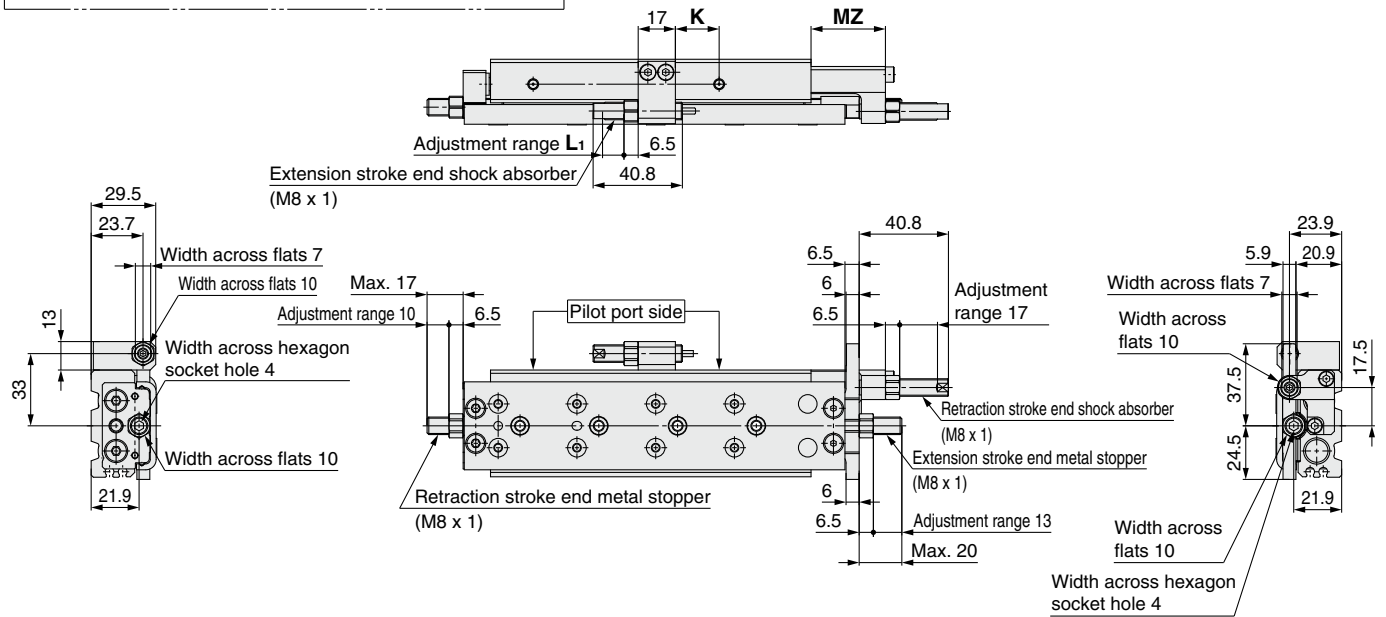
#### Standard type/MXQ12-□ZG-X2201

\* Dimensions other than those shown below are the same as the standard product.

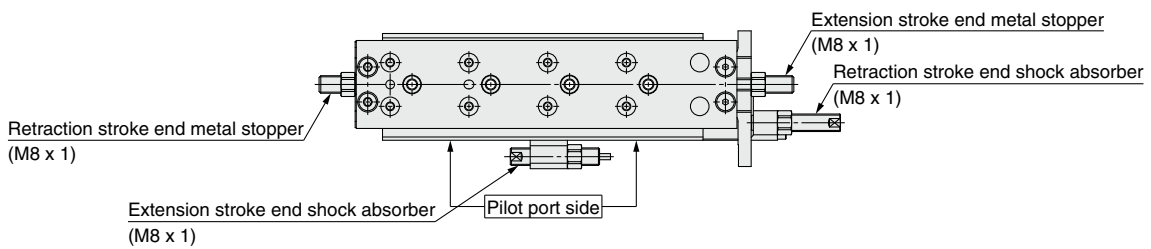


#### Dimensions

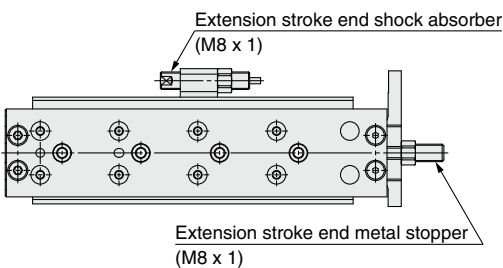
| Stroke | K   | MZ | $L_1$ |
|--------|-----|----|-------|
| 10     | 5.5 | 26 | 4     |
| 20     | 5.5 | 34 | 4     |
| 30     | 5.5 | 34 | 5     |
| 40     | 5.5 | 34 | 7     |
| 50     | 14  | 34 | 9     |
| 75     | 20  | 34 | 9     |
| 100    | 45  | 34 | 9     |



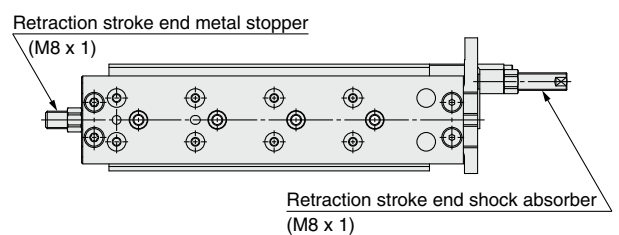
#### Symmetric type/MXQ12L-□ZG-X2201



#### Standard type/MXQ12-□ZH-X2201



#### Standard type/MXQ12-□ZJ-X2201

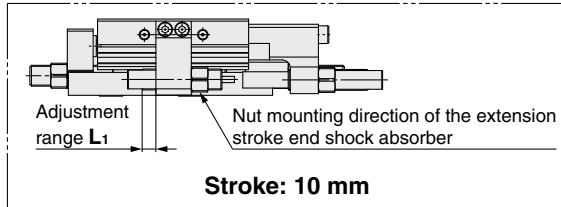


Symbol  
**-X2201**

## Dimensions

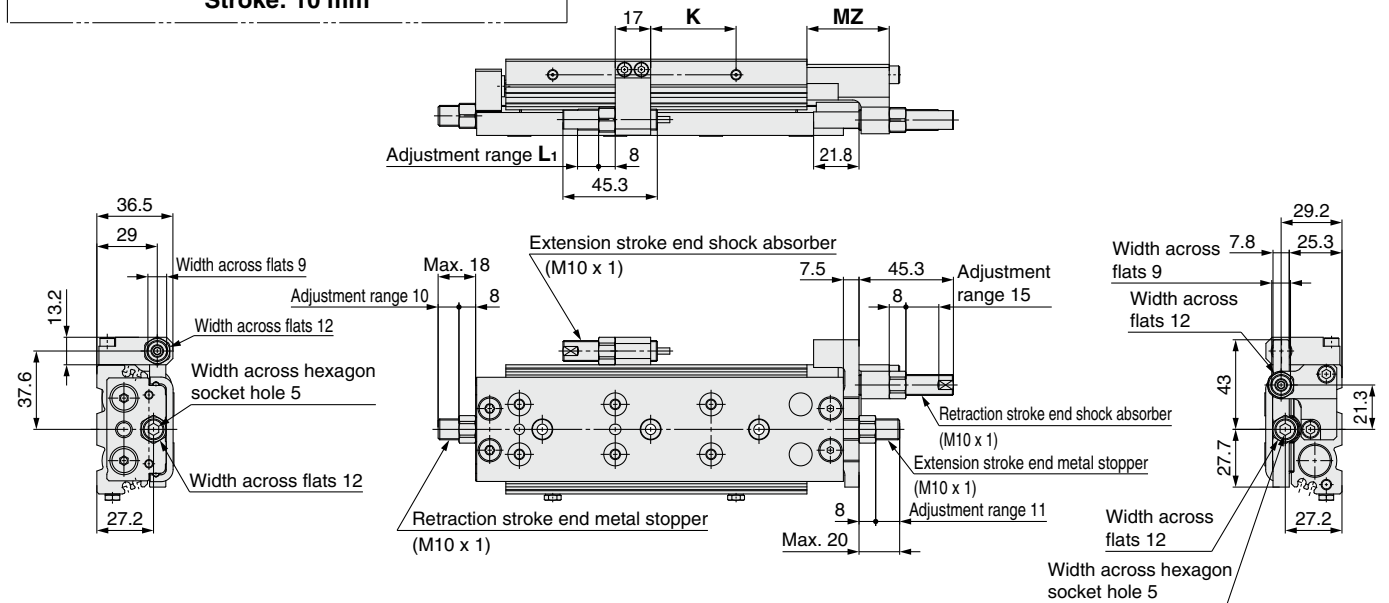
### Standard type/MXQ16-□ZG-X2201

\* Dimensions other than those shown below are the same as the standard product.



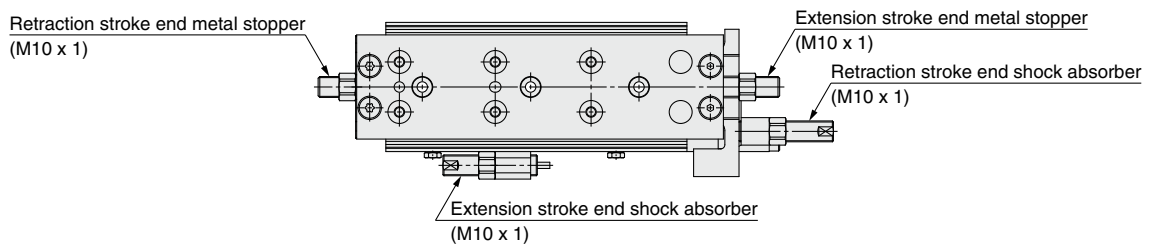
### Dimensions

| Stroke | K   | MZ   | $L_1$ |
|--------|-----|------|-------|
| 10     | 5.5 | 33.5 | 6     |
| 20     | 5.5 | 39.5 | 9     |
| 30     | 14  | 39.5 | 10    |
| 40     | 17  | 39.5 | 10    |
| 50     | 22  | 39.5 | 10    |
| 75     | 41  | 39.5 | 10    |
| 100    | 47  | 39.5 | 10    |
| 125    | 72  | 39.5 | 10    |

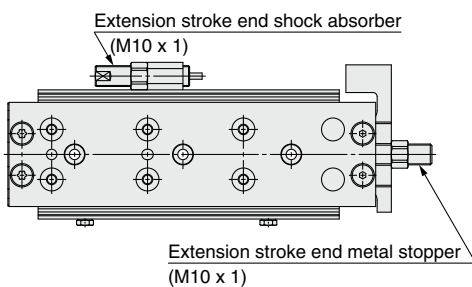


### Symmetric type/MXQ16L-□ZG-X2201

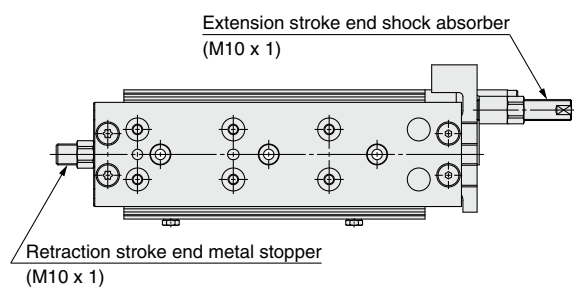
\* Only the adjuster part is symmetric.



### Standard type/MXQ16-□ZH-X2201



### Standard type/MXQ16-□ZJ-X2201



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

## 15 Combined Use of Shock Absorber + Metal Stopper

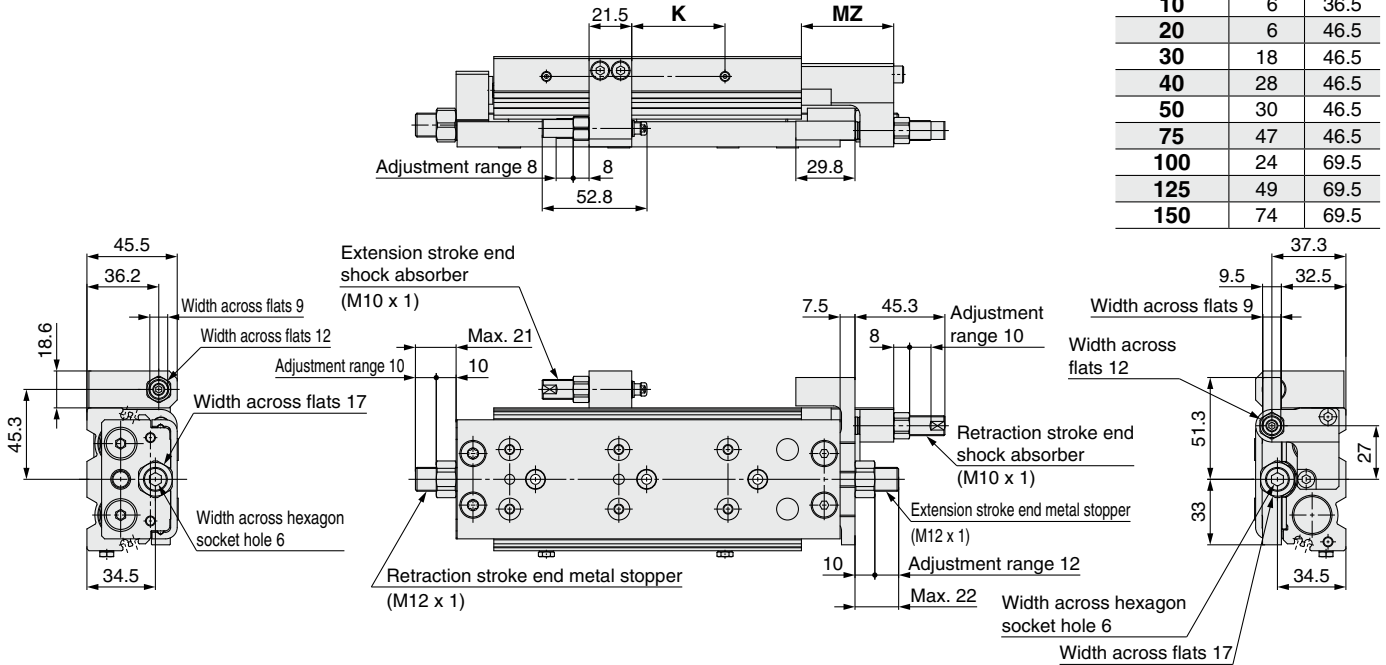
### Dimensions

#### Standard type/MXQ20-□ZG-X2201

\* Dimensions other than those shown below are the same as the standard product.

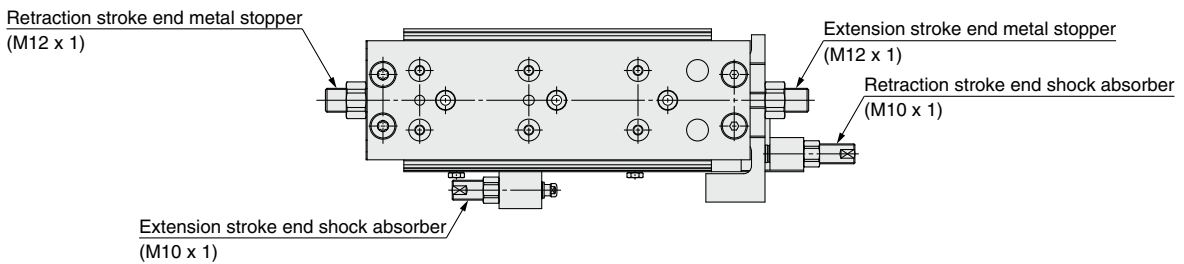
#### Dimensions

| Stroke | K  | MZ   |
|--------|----|------|
| 10     | 6  | 36.5 |
| 20     | 6  | 46.5 |
| 30     | 18 | 46.5 |
| 40     | 28 | 46.5 |
| 50     | 30 | 46.5 |
| 100    | 24 | 69.5 |
| 125    | 49 | 69.5 |
| 150    | 74 | 69.5 |

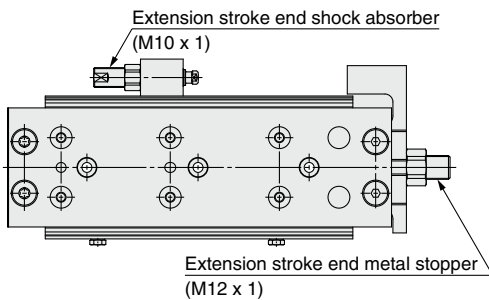


#### Symmetric type/MXQ20L-□ZG-X2201

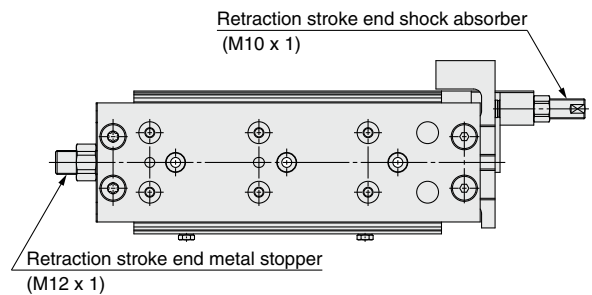
\* Only the adjuster part is symmetric.



#### Standard type/MXQ20-□ZH-X2201



#### Standard type/MXQ20-□ZJ-X2201



Symbol  
**-X2201**

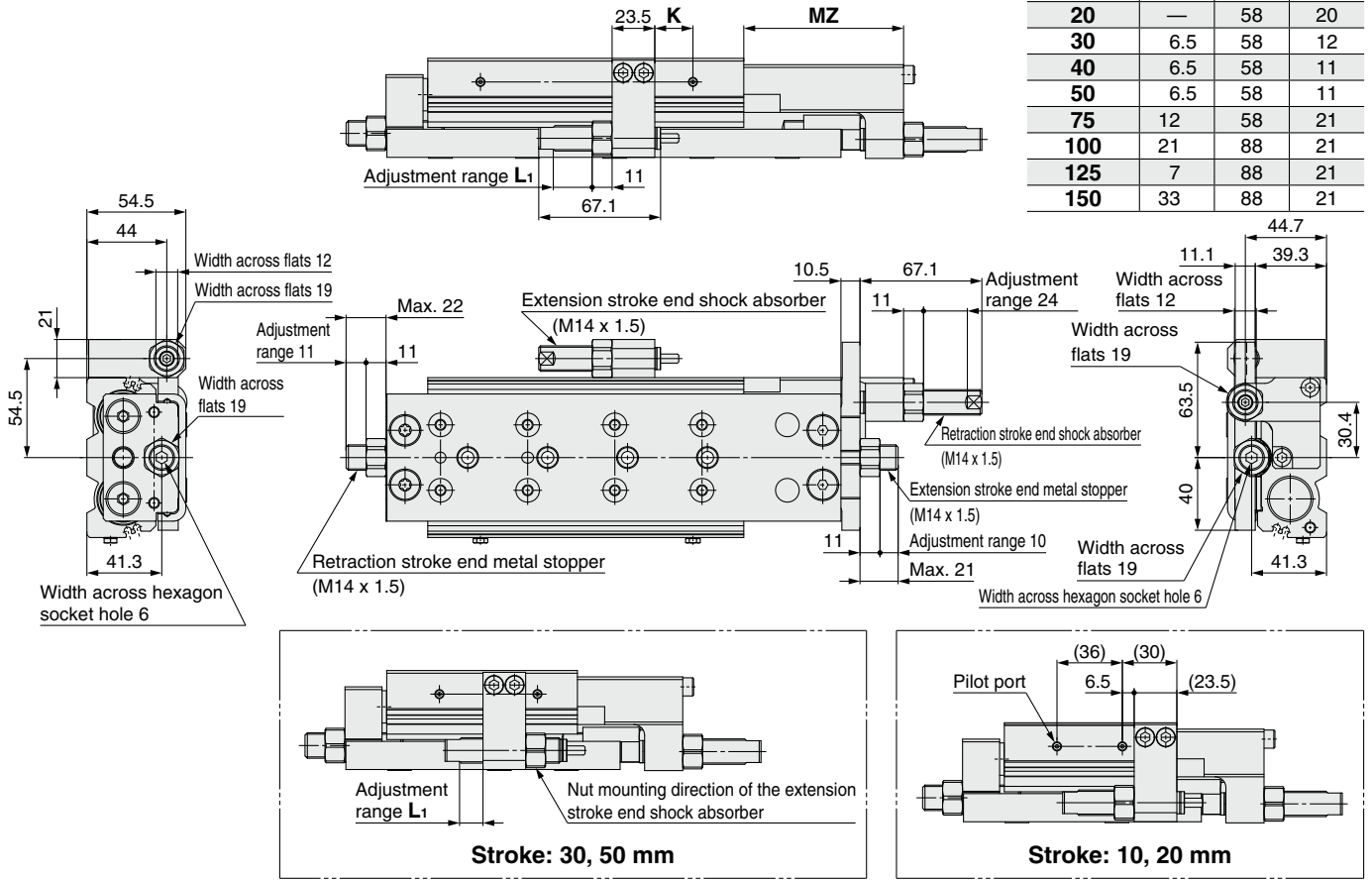
**Dimensions**

**Standard type/MXQ25-□ZG-X2201**

\* Dimensions other than those shown below are the same as the standard product.

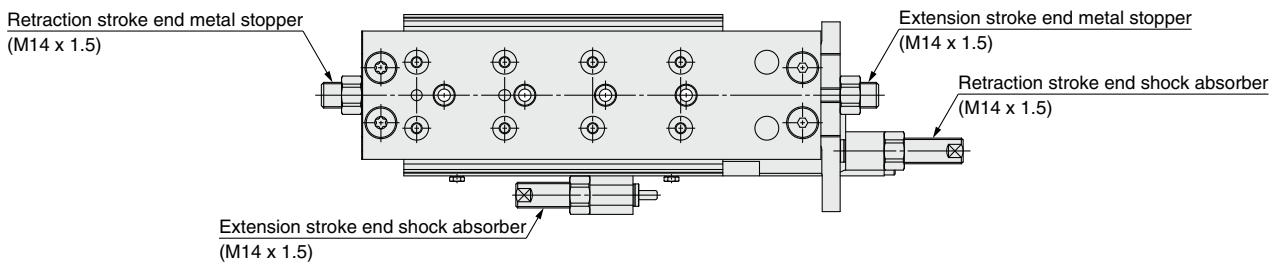
**Dimensions**

| Stroke | K   | MZ | L <sub>1</sub> |
|--------|-----|----|----------------|
| 10     | —   | 48 | 20             |
| 20     | —   | 58 | 20             |
| 30     | 6.5 | 58 | 12             |
| 40     | 6.5 | 58 | 11             |
| 50     | 6.5 | 58 | 11             |
| 75     | 12  | 58 | 21             |
| 100    | 21  | 88 | 21             |
| 125    | 7   | 88 | 21             |
| 150    | 33  | 88 | 21             |

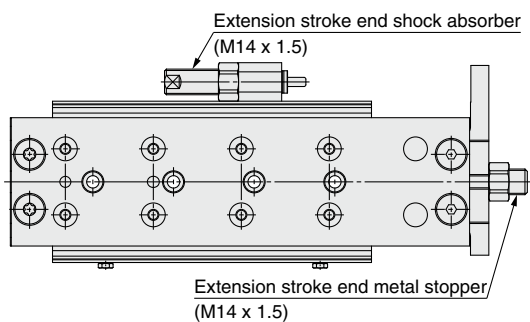


**Symmetric type/MXQ25L-□ZG-X2201**

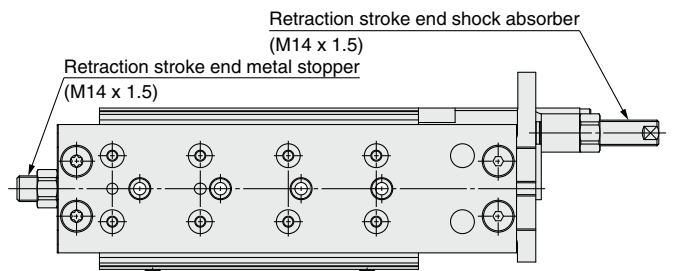
\* Only the adjuster part is symmetric.



**Standard type/MXQ25-□ZH-X2201**



**Standard type/MXQ25-□ZJ-X2201**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

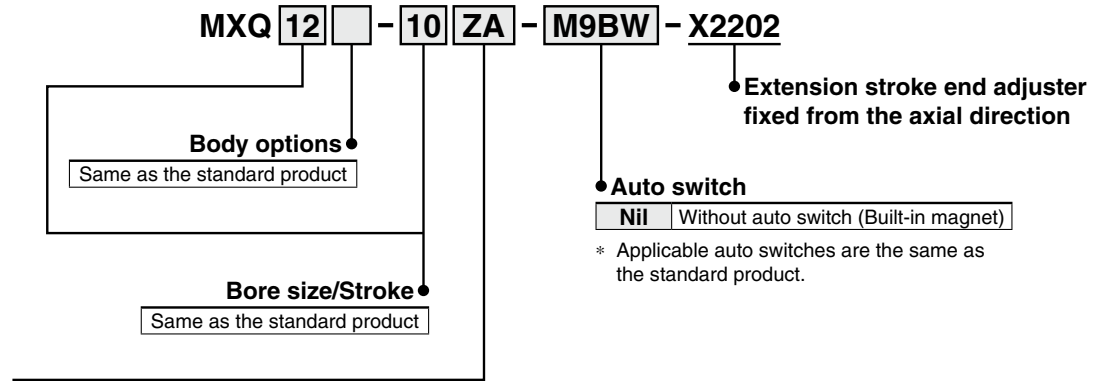
Made to Order

Model Selection

## 16 Extension Stroke End Adjuster Fixed from the Axial Direction

This product has been designed to enable the method of locking the extension stroke end adjuster to be fixed from the axial direction using a hexagon wrench.

### How to Order



#### Adjuster options

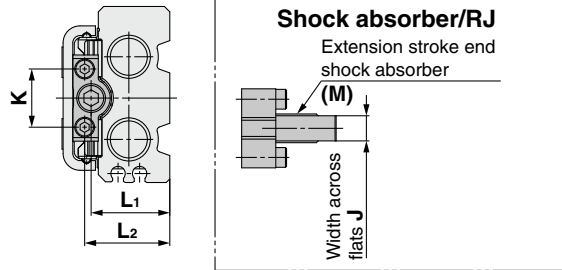
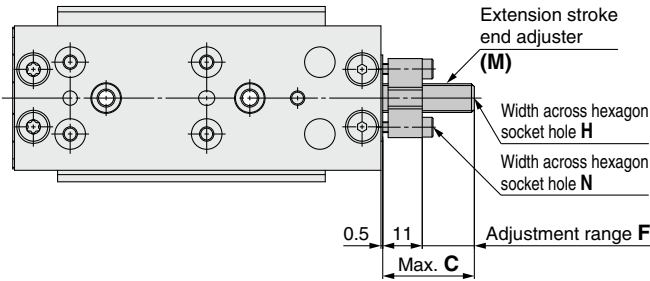
| Symbol    | Adjuster type*2*3*4       | Adjuster mounting position*1 |                       |
|-----------|---------------------------|------------------------------|-----------------------|
|           |                           | Extension stroke end         | Retraction stroke end |
| <b>ZA</b> | Metal stopper with bumper | ●                            | ●                     |
| <b>ZB</b> |                           | ●                            | ●                     |
| <b>ZD</b> | Rubber stopper            | ●                            | ●                     |
| <b>ZE</b> |                           | ●                            |                       |
| <b>ZG</b> | Shock absorber/RJ         | ●                            | ●                     |
| <b>ZH</b> |                           | ●                            |                       |
| <b>ZK</b> | Metal stopper             | ●                            | ●                     |
| <b>ZL</b> |                           | ●                            |                       |

| Symbol     | Adjuster type*2*3*4       |                           | Adjuster mounting position |                       |
|------------|---------------------------|---------------------------|----------------------------|-----------------------|
|            | Extension stroke end      | Retraction stroke end     | Extension stroke end       | Retraction stroke end |
| <b>ZBF</b> | Metal stopper with bumper | Rubber stopper            | ●                          | ●                     |
| <b>ZBJ</b> |                           | Shock absorber/RJ         | ●                          | ●                     |
| <b>ZBM</b> |                           | Metal stopper             | ●                          | ●                     |
| <b>ZEC</b> | Rubber stopper            | Metal stopper with bumper | ●                          | ●                     |
| <b>ZEJ</b> |                           | Shock absorber/RJ         | ●                          | ●                     |
| <b>ZEM</b> |                           | Metal stopper             | ●                          | ●                     |
| <b>ZHC</b> | Shock absorber/RJ         | Metal stopper with bumper | ●                          | ●                     |
| <b>ZHF</b> |                           | Rubber stopper            | ●                          | ●                     |
| <b>ZHM</b> |                           | Metal stopper             | ●                          | ●                     |
| <b>ZLC</b> | Metal stopper             | Metal stopper with bumper | ●                          | ●                     |
| <b>ZLF</b> |                           | Rubber stopper            | ●                          | ●                     |
| <b>ZLJ</b> |                           | Shock absorber/RJ         | ●                          | ●                     |

- \*1 ●: Shipped together with the product, but not assembled  
Without any symbol for the adjuster mounting position:  
The adjuster can be mounted afterward.
- \*2 The metal stopper with bumper option is not available for the MXQ6(A, B).
- \*3 The shock absorber option is not available for the MXQ6(A, B) and MXQ8(A, C).
- \*4 When the product comes with adjusters on both ends, the retraction stroke end is standard.



**Dimensions**



**Metal Stopper with Bumper**

| Model          | C  | F  | H | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   |
|----------------|----|----|---|------|----------------|----------------|-----------|-----|
| MXQ8, MXQ8A    | 23 | 12 | 3 | 13   | 16.6           | 18.2           | M6 x 0.75 | 2.5 |
| MXQ8C          |    |    |   |      | 14.6           | 16.2           |           |     |
| MXQ12          | 26 | 14 | 4 | 16.2 | 21.9           | 23.7           | M8 x 1    | 2.5 |
| MXQ12A, MXQ12C |    |    |   |      | 18.9           | 20.7           |           |     |
| MXQ16          | 27 | 15 | 5 | 20   | 27.2           | 28.9           | M10 x 1   | 3   |
| MXQ16A         |    |    |   |      | 25.2           | 26.9           |           |     |
| MXQ20          | 30 | 18 | 6 | 27   | 34.5           | 37.1           | M12 x 1   | 4   |
| MXQ20A         |    |    |   |      | 31.5           | 34.1           |           |     |
| MXQ25          | 31 | 20 | 6 | 27   | 41.3           | 43.8           | M14 x 1.5 | 5   |
| MXQ25A         |    |    |   |      | 38.3           | 40.8           |           |     |
| MXQ8B          | 26 | 12 | 4 | 16.2 | 14.9           | 16.7           | M8 x 1    | 2.5 |
| MXQ12B         | 27 | 13 | 5 | 20   | 20.2           | 21.9           | M10 x 1   | 3   |
| MXQ16B         | 30 | 16 | 6 | 27   | 25.5           | 28.1           | M12 x 1   | 4   |
| MXQ20B         | 31 | 17 | 6 | 27   | 32.3           | 34.8           | M14 x 1.5 | 5   |

**Rubber Stopper**

| Model          | C  | F  | H | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   |
|----------------|----|----|---|------|----------------|----------------|-----------|-----|
| MXQ6           | 25 | 14 | 3 | 13   | 13.6           | 15.2           | M6 x 0.75 | 2.5 |
| MXQ6A          |    |    |   |      | 16.6           | 18.2           |           |     |
| MXQ8, MXQ8A    | 25 | 13 | 3 | 13   | 16.6           | 18.2           | M6 x 0.75 | 2.5 |
| MXQ8C          |    |    |   |      | 14.6           | 16.2           |           |     |
| MXQ12          | 27 | 16 | 4 | 16.2 | 21.9           | 23.7           | M8 x 1    | 2.5 |
| MXQ12A, MXQ12C |    |    |   |      | 18.9           | 20.7           |           |     |
| MXQ16          | 28 | 17 | 5 | 20   | 27.2           | 28.9           | M10 x 1   | 3   |
| MXQ16A         |    |    |   |      | 25.2           | 26.9           |           |     |
| MXQ20          | 31 | 20 | 6 | 27   | 34.5           | 37.1           | M12 x 1   | 4   |
| MXQ20A         |    |    |   |      | 31.5           | 34.1           |           |     |
| MXQ25          | 33 | 21 | 6 | 27   | 41.3           | 43.8           | M14 x 1.5 | 5   |
| MXQ25A         |    |    |   |      | 38.3           | 40.8           |           |     |
| MXQ6B          | 25 | 13 | 3 | 13   | 13.6           | 15.2           | M6 x 0.75 | 2.5 |
| MXQ8B          | 27 | 16 | 4 | 16.2 | 14.9           | 16.7           | M8 x 1    | 2.5 |
| MXQ12B         | 28 | 17 | 5 | 20   | 20.2           | 21.9           | M10 x 1   | 3   |
| MXQ16B         | 31 | 20 | 6 | 27   | 25.5           | 28.1           | M12 x 1   | 4   |
| MXQ20B         | 33 | 21 | 6 | 27   | 32.3           | 34.8           | M14 x 1.5 | 5   |

**Shock Absorber/RJ**

| Model          | C  | F  | J  | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   |
|----------------|----|----|----|------|----------------|----------------|-----------|-----|
| MXQ12          | 29 | 11 | 7  | 16.2 | 21.9           | 23.7           | M8 x 1    | 2.5 |
| MXQ12A, MXQ12C |    |    |    |      | 18.9           | 20.7           |           |     |
| MXQ16          | 30 | 11 | 9  | 20   | 27.2           | 28.9           | M10 x 1   | 3   |
| MXQ16A         |    |    |    |      | 25.2           | 26.9           |           |     |
| MXQ20          | 26 | 6  | 9  | 27   | 34.5           | 37.1           | M10 x 1   | 4   |
| MXQ20A         |    |    |    |      | 31.5           | 34.1           |           |     |
| MXQ25          | 45 | 25 | 12 | 27   | 41.3           | 43.8           | M14 x 1.5 | 5   |
| MXQ25A         |    |    |    |      | 38.3           | 40.8           |           |     |
| MXQ8B          | 28 | 11 | 7  | 16.2 | 14.9           | 16.7           | M8 x 1    | 2.5 |
| MXQ12B         | 30 | 11 | 9  | 20   | 20.2           | 21.9           | M10 x 1   | 3   |
| MXQ16B         | 26 | 7  | 9  | 27   | 25.5           | 28.1           | M10 x 1   | 4   |
| MXQ20B         | 45 | 25 | 12 | 27   | 32.3           | 34.8           | M14 x 1.5 | 5   |

**Metal Stopper**

| Model          | C  | F  | H | K    | L <sub>1</sub> | L <sub>2</sub> | M         | N   |
|----------------|----|----|---|------|----------------|----------------|-----------|-----|
| MXQ6           | 24 | 12 | 3 | 13   | 13.6           | 15.2           | M6 x 0.75 | 2.5 |
| MXQ6A          |    |    |   |      | 16.6           | 18.2           |           |     |
| MXQ8, MXQ8A    | 23 | 12 | 3 | 13   | 16.6           | 18.2           | M6 x 0.75 | 2.5 |
| MXQ8C          |    |    |   |      | 14.6           | 16.2           |           |     |
| MXQ12          | 26 | 14 | 4 | 16.2 | 21.9           | 23.7           | M8 x 1    | 2.5 |
| MXQ12A, MXQ12C |    |    |   |      | 18.9           | 20.7           |           |     |
| MXQ16          | 27 | 15 | 5 | 20   | 27.2           | 28.9           | M10 x 1   | 3   |
| MXQ16A         |    |    |   |      | 25.2           | 26.9           |           |     |
| MXQ20          | 30 | 18 | 6 | 27   | 34.5           | 37.1           | M12 x 1   | 4   |
| MXQ20A         |    |    |   |      | 31.5           | 34.1           |           |     |
| MXQ25          | 31 | 20 | 6 | 27   | 41.3           | 43.8           | M14 x 1.5 | 5   |
| MXQ25A         |    |    |   |      | 38.3           | 40.8           |           |     |
| MXQ6B          | 23 | 12 | 3 | 13   | 13.6           | 15.2           | M6 x 0.75 | 2.5 |
| MXQ8B          | 26 | 14 | 4 | 16.2 | 14.9           | 16.7           | M8 x 1    | 2.5 |
| MXQ12B         | 27 | 15 | 5 | 20   | 20.2           | 21.9           | M10 x 1   | 3   |
| MXQ16B         | 30 | 18 | 6 | 27   | 25.5           | 28.1           | M12 x 1   | 4   |
| MXQ20B         | 31 | 20 | 6 | 27   | 32.3           | 34.8           | M14 x 1.5 | 5   |

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

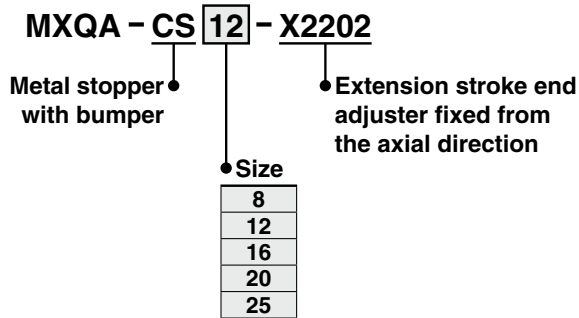
Model Selection

## 16 Extension Stroke End Adjuster Fixed from the Axial Direction (Order an extension stroke end adjuster as a single unit.)

This product has been designed to enable the method of locking the extension stroke end adjuster to be fixed from the axial direction using a hexagon wrench.

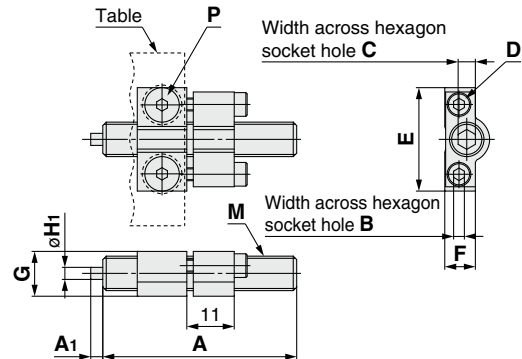
### Stroke Adjusters (Accessories)

#### How to Order



#### Dimensions

##### Metal stopper with bumper



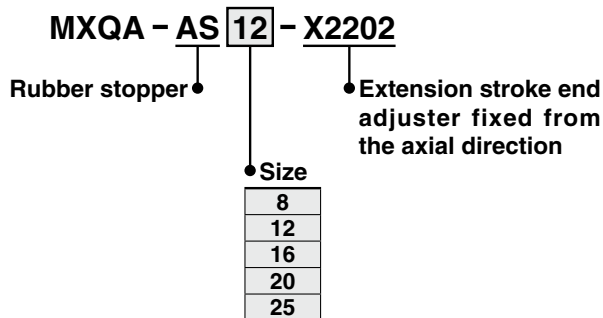
#### Metal Stopper with Bumper

| Model              | Adjuster part no. | A  | A <sub>1</sub> | B   | C | D*1     | E    | F    | G    | øH <sub>1</sub> | M (Fine pitch) | P*2     |
|--------------------|-------------------|----|----------------|-----|---|---------|------|------|------|-----------------|----------------|---------|
| MXQ8(L, A, C, CL)  | MXQA-CS8-X2202    | 40 | 2              | 2.5 | 3 | M3 x 12 | 18   | 5.8  | 8.3  | 2               | M6 x 0.75      | M3 x 6  |
| MXQ12(L, A, C, CL) | MXQA-CS12-X2202   | 45 | 2.8            | 2.5 | 4 | M3 x 12 | 24   | 7.1  | 10.4 | 2.8             | M8 x 1         | M4 x 8  |
| MXQ16(A)           | MXQA-CS16-X2202   | 50 | 3.6            | 3   | 5 | M4 x 12 | 29.4 | 9.2  | 12.6 | 3.6             | M10 x 1        | M5 x 10 |
| MXQ20(A)           | MXQA-CS20-X2202   | 57 | 4.4            | 4   | 6 | M5 x 12 | 36   | 11.2 | 16.2 | 4.4             | M12 x 1        | M6 x 12 |
| MXQ25(A)           | MXQA-CS25-X2202   | 64 | 5.5            | 5   | 6 | M6 x 12 | 44   | 13.5 | 19.3 | 5.5             | M14 x 1.5      | M8 x 16 |

\*1 Size of the hexagon socket head cap screw

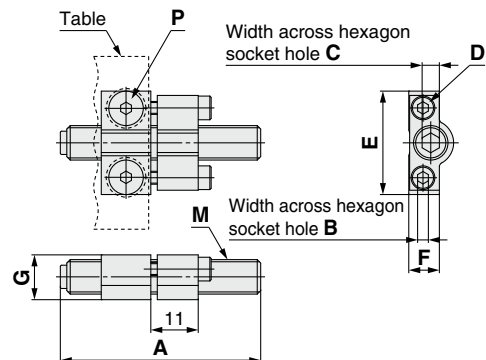
\*2 Size of the hexagon socket flat countersunk head cap screw

#### How to Order



#### Dimensions

##### Rubber stopper



#### Rubber Stopper

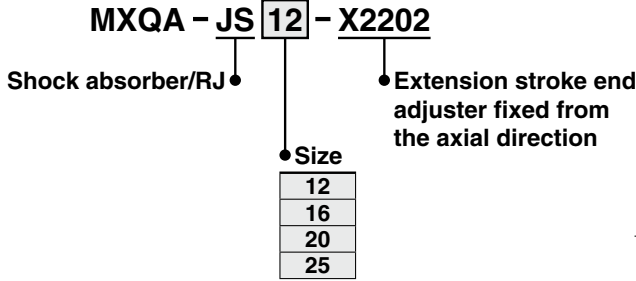
| Model              | Adjuster part no. | A    | B   | C | D*1     | E    | F    | G    | M (Fine pitch) | P*2     |
|--------------------|-------------------|------|-----|---|---------|------|------|------|----------------|---------|
| MXQ6(L, A)         | MXQA-AS8-X2202    | 41.5 | 2.5 | 3 | M3 x 12 | 18   | 5.8  | 8.3  | M6 x 0.75      | M3 x 6  |
| MXQ8(L, A, C, CL)  |                   |      |     |   |         |      |      |      |                |         |
| MXQ12(L, A, C, CL) | MXQA-AS12-X2202   | 46.5 | 2.5 | 4 | M3 x 12 | 24   | 7.1  | 10.4 | M8 x 1         | M4 x 8  |
| MXQ16(A)           | MXQA-AS16-X2202   | 51.5 | 3   | 5 | M4 x 12 | 29.4 | 9.2  | 12.6 | M10 x 1        | M5 x 10 |
| MXQ20(A)           | MXQA-AS20-X2202   | 58.5 | 4   | 6 | M5 x 12 | 36   | 11.2 | 16.2 | M12 x 1        | M6 x 12 |
| MXQ25(A)           | MXQA-AS25-X2202   | 65.5 | 5   | 6 | M6 x 12 | 44   | 13.5 | 19.3 | M14 x 1.5      | M8 x 16 |

\*1 Size of the hexagon socket head cap screw

\*2 Size of the hexagon socket flat countersunk head cap screw

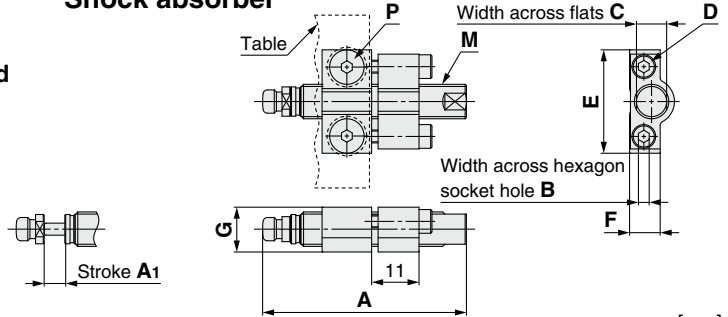
Symbol  
**-X2202**

**How to Order**



**Dimensions**

**Shock absorber**

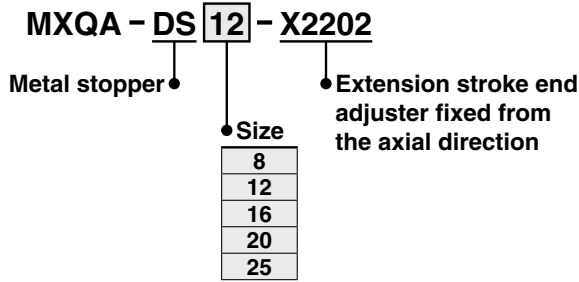


**Shock Absorber/RJ**

| Model              | Adjuster part no. | Single shock absorber part no. | A              | A <sub>1</sub> | B  | C   | D*1 | E       | F    | G    | M (Fine pitch) | P*2       |         |
|--------------------|-------------------|--------------------------------|----------------|----------------|----|-----|-----|---------|------|------|----------------|-----------|---------|
| MXQ12(L, A, C, CL) | MXQ8B(L)          | MXQA-JS12-X2202                | RJ0805U-X2300  | 47.3           | 5  | 2.5 | 7   | M3 x 12 | 24   | 7.1  | 10.4           | M8 x 1    | M4 x 8  |
| MXQ16(A)           | MXQ12B(L)         | MXQA-JS16-X2202                | RJ1006U-X2300  | 52.8           | 6  | 3   | 9   | M4 x 12 | 29.4 | 9.2  | 12.6           | M10 x 1   | M5 x 10 |
| MXQ20(A)           | MXQ16B            | MXQA-JS20-X2202                | RJ1007HU-X2300 | 52.8           | 7  | 4   | 9   | M5 x 12 | 36   | 11.2 | 16.2           | M12 x 1   | M6 x 12 |
| MXQ25(A)           | MXQ20B            | MXQA-JS25-X2202                | RJ1410U-X2300  | 77.1           | 10 | 5   | 12  | M6 x 12 | 44   | 13.5 | 19.3           | M14 x 1.5 | M8 x 16 |

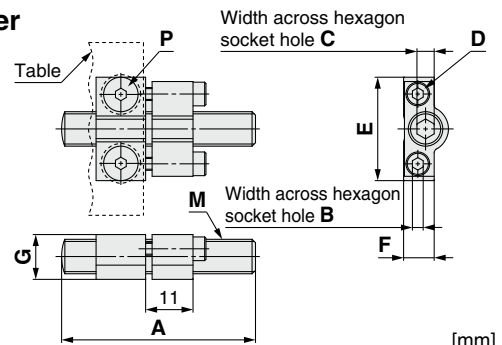
\*1 Size of the hexagon socket head cap screw \*2 Size of the hexagon socket flat countersunk head cap screw

**How to Order**



**Dimensions**

**Metal stopper**



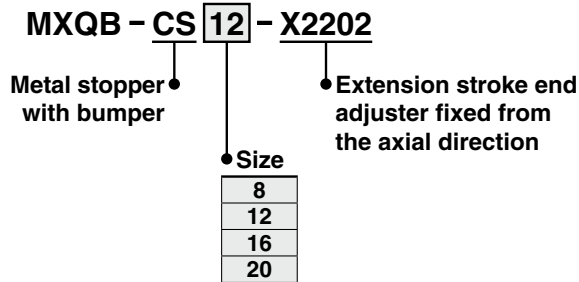
**Metal Stopper**

| Model              | Adjuster part no. | A               | B   | C   | D*1     | E       | F    | G    | M (Fine pitch) | P*2       |         |
|--------------------|-------------------|-----------------|-----|-----|---------|---------|------|------|----------------|-----------|---------|
| MXQ6(L, A)         | MXQA-DS8-X2202    | 40              | 2.5 | 3   | M3 x 12 | 18      | 5.8  | 8.3  | M6 x 0.75      | M3 x 6    |         |
| MXQ8(L, A, C, CL)  |                   | MXQ6B(L)        | 45  | 2.5 | 4       | M3 x 12 | 24   | 7.1  | 10.4           | M8 x 1    | M4 x 8  |
| MXQ12(L, A, C, CL) | MXQ8B(L)          | MXQA-DS12-X2202 | 45  | 2.5 | 4       | M3 x 12 | 24   | 7.1  | 10.4           | M8 x 1    | M4 x 8  |
| MXQ16(A)           | MXQ12B(L)         | MXQA-DS16-X2202 | 50  | 3   | 5       | M4 x 12 | 29.4 | 9.2  | 12.6           | M10 x 1   | M5 x 10 |
| MXQ20(A)           | MXQ16B            | MXQA-DS20-X2202 | 57  | 4   | 6       | M5 x 12 | 36   | 11.2 | 16.2           | M12 x 1   | M6 x 12 |
| MXQ25(A)           | MXQ20B            | MXQA-DS25-X2202 | 64  | 5   | 6       | M6 x 12 | 44   | 13.5 | 19.3           | M14 x 1.5 | M8 x 16 |

\*1 Size of the hexagon socket head cap screw \*2 Size of the hexagon socket flat countersunk head cap screw

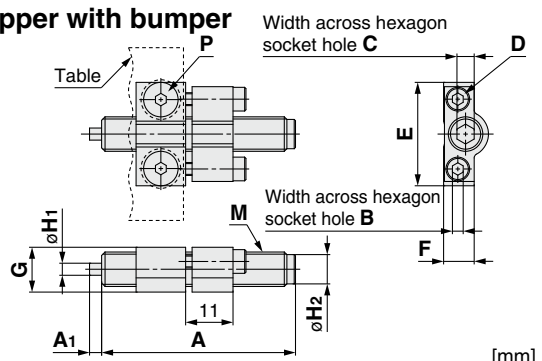
**Low thrust with high rigidity type**

**How to Order**



**Dimensions**

**Metal stopper with bumper**



**Metal Stopper with Bumper**

| Model     | Adjuster part no. | A  | A <sub>1</sub> | B   | C | D*1     | E    | F    | G    | øH <sub>1</sub> | øH <sub>2</sub> | M (Fine pitch) | P*2     |
|-----------|-------------------|----|----------------|-----|---|---------|------|------|------|-----------------|-----------------|----------------|---------|
| MXQ8B(L)  | MXQB-CS8-X2202    | 45 | 2.8            | 2.5 | 4 | M3 x 12 | 24   | 7.1  | 10.4 | 2.8             | 6.8             | M8 x 1         | M4 x 8  |
| MXQ12B(L) | MXQB-CS12-X2202   | 50 | 3.6            | 3   | 5 | M4 x 12 | 29.4 | 9.2  | 12.6 | 3.6             | 8.8             | M10 x 1        | M5 x 10 |
| MXQ16B    | MXQB-CS16-X2202   | 57 | 4.4            | 4   | 6 | M5 x 12 | 36   | 11.2 | 16.2 | 4.4             | 10.8            | M12 x 1        | M6 x 12 |
| MXQ20B    | MXQB-CS20-X2202   | 64 | 5.5            | 5   | 6 | M6 x 12 | 44   | 13.5 | 19.3 | 5.5             | 12.3            | M14 x 1.5      | M8 x 16 |

\*1 Size of the hexagon socket head cap screw \*2 Size of the hexagon socket flat countersunk head cap screw

Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series Model Selection

Model Selection Software is available.  
For details, refer to Model Selection  
Software on the **SMC website**.

## Guidelines for Model Selection 1

| Model selection criteria   | Body type                                     | Bore size | Dimensions [mm] |       |             | Weight [g]<br>(Compared at 50 stroke) | Thrust [N]<br>(0.5 MPa,<br>OUT direction) | Allowable moment [N·m]<br>(Compared at 50 stroke) |     |      |
|--|---|-----------|-----------------|-------|-------------|---------------------------------------|---|---|-----|------|
|  |   |           | Height          | Width | Table width |                                       |   | Pitch   | Yaw | Roll |
| When an air slide table without preset piping directions is required (The piping direction can be set when mounting to application.)<br>* $\phi 16$ , $\phi 20$ , $\phi 25$ : Standard type, Low thrust with high rigidity type (excluding $\phi 25$ ): Double piping direction type | Double-ported type<br>(MXQ□A)                 | $\phi 6$  | 23              | 34    | 32          | 210                                   | 29  | 6   | 6   | 13   |
|  |   | $\phi 8$  | 23              | 38    | 32          | 270                                   | 51  | 10  | 10  | 18   |
|  |   | $\phi 12$ | 27              | 49    | 40          | 400                                   | 113                                       | 10  | 10  | 19   |
|  |   | $\phi 16$ | 35              | 62    | 50          | 670                                   | 201                                       | 16  | 16  | 33   |
|  |   | $\phi 20$ | 43              | 72    | 60          | 1,100                                 | 314                                       | 21  | 21  | 49   |
|  |   | $\phi 25$ | 52              | 88    | 70          | 1,900                                 | 491                                       | 41  | 41  | 82   |
| For applications which require more guide rigidity than thrust   | Low thrust with high rigidity type<br>(MXQ□B) | $\phi 6$  | 20              | 34    | 32          | 230                                   | 29  | 10  | 10  | 18   |
|  |   | $\phi 8$  | 23              | 42    | 40          | 330                                   | 51  | 10  | 10  | 19   |
|  |   | $\phi 12$ | 30              | 52    | 50          | 580                                   | 113                                       | 16  | 16  | 33   |
|  |   | $\phi 16$ | 37              | 70    | 60          | 920                                   | 201                                       | 21  | 21  | 49   |
| • When a lower height is required<br>• When two indicator LEDs need to be observed on one side (including short stroke)  | Single side-ported type<br>(MXQ□C)            | $\phi 8$  | 21              | 38    | 32          | 260                                   | 51  | 10  | 10  | 18   |
|  |   | $\phi 12$ | 27              | 49    | 40          | 400                                   | 113                                       | 10  | 10  | 19   |
| To replace the current type<br>(Mounting dimensions and height are interchangeable.)   | Height interchangeable type<br>(MXQ□)         | $\phi 6$  | 20              | 34    | 32          | 190                                   | 29  | 6   | 6   | 13   |
|  |   | $\phi 8$  | 23              | 38    | 32          | 310                                   | 51  | 10  | 10  | 18   |
|  |   | $\phi 12$ | 30              | 49    | 40          | 430                                   | 113                                       | 10  | 10  | 19   |
|  |   | $\phi 16$ | 37              | 62    | 50          | 690                                   | 201                                       | 16  | 16  | 33   |
|  |   | $\phi 20$ | 46              | 72    | 60          | 1,100                                 | 314                                       | 21  | 21  | 49   |
|  |   | $\phi 25$ | 55              | 88    | 70          | 1,900                                 | 491                                       | 41  | 41  | 82   |

## Guidelines for Model Selection 2

### Model Variations

| Guide size<br>(Width) | Double-ported type<br>MXQ□A |  | Low thrust with high rigidity type<br>MXQ□B |               |                    | Single side-ported type<br>MXQ□C |               |                    | Height interchangeable type<br>MXQ□ |               |                    |
|-----------------------|-----------------------------|--|---|---------------|--------------------|----------------------------------|---------------|--------------------|-------------------------------------|---------------|--------------------|
|                       | Bore size                   |  | Bore size                                   | Standard type | Symmetric type (L) | Bore size                        | Standard type | Symmetric type (L) | Bore size                           | Standard type | Symmetric type (L) |
| 32(1) <sup>*1</sup>   | $\phi 6$                    |  | —   | —             | —                  | —                                | —             | —                  | $\phi 6$                            |               |                    |
| 32(2)                 | $\phi 8$                    |  | $\phi 6$                                    |               |                    | $\phi 8$                         |               |                    | $\phi 8$                            |               |                    |
| 40                    | $\phi 12$                   |  | $\phi 8$                                    |               |                    | $\phi 12$                        |               |                    | $\phi 12$                           |               |                    |
| 50                    | $\phi 16$                   |  | $\phi 12$                                   |               |                    | —                                | —             | —                  | $\phi 16$                           |               |                    |
| 60                    | $\phi 20$                   |  | $\phi 16$                                   |               |                    | —                                | —             | —                  | $\phi 20$                           |               |                    |
| 70                    | $\phi 25$                   |  | $\phi 20$                                   |               |                    | —                                | —             | —                  | $\phi 25$                           |               |                    |

\*1 There are two rigidity types of actuator tables for width 32.

## Selection Conditions

There are two model selection methods according to the usage. The model selection procedures are shown below.

The following is a simplified selection procedure using the graphs for when an MXQ is mounted onto a static table. When using the product mounted to an electric actuator, etc., it is necessary to perform model selection using another method as the product can be influenced by the acceleration of the electric actuator. For details, refer to Model Selection Software on the SMC website.

| Application                             |                                    | Transfer  |                           |                |                   |               | Pressing  |  |
|---|------------------------------------|---|---------------------------|----------------|-------------------|---------------|---|--|
| Workpiece mounting position<br>Overhang |                                    |   |                           |                |                   |               |   |  |
|   |                                    | L1: Distance from the center of the table to the center of gravity of the workpiece<br>L2: Distance from the top surface of the table to the center of gravity of the workpiece<br>L3: Distance from the end of the body to the center of gravity of the workpiece in the Z direction |                           |                |                   |               | L1: Distance from the center of the table to the pressing part<br>L2: Distance from the top surface of the table to the pressing part |  |
| Stroke adjuster                         |                                    | Without adjuster  | Metal stopper with bumper | Rubber stopper | Shock absorber/RJ | Metal stopper |   |  |
| Selection graph                         | Double-ported type                 | Page 162  | Page 168                  | Page 173       | Page 179          | Page 185      | Page 191  |  |
|   | Single side-ported type            |   |                           |                |                   |               |   |  |
|   | Height interchangeable type        | Page 165  | Page 171                  | Page 176       | Page 182          | Page 188      | Page 192  |  |
|   | Low thrust with high rigidity type |   |                           |                |                   |               |   |  |

## For Transfer

### Model Selection Steps

#### 1 Necessary conditions

- Equipment to be used
- Load mass
- Overhang
- Average speed
- Adjuster type

#### 2 Select a graph.

Select the applicable graph (from page 162) by body configuration and stroke adjuster type. When the extension stroke end and retraction stroke end use different adjuster types, check each adjuster graph to see if the adjuster can be used.

#### 3 Determine the overhang.

Determine the overhang at the workpiece mounting positions L1, L2, and L3.  
\* Positional relationships among L1, L2, and L3 do not change regardless of the body mounting direction.

#### 4 Check the overhang.

- Check the overhang for L1max, L2max, and L3max during transfer.
- ① L1max: Check the overhang from the cross point of the load mass and driving speed.
  - ② L2max: a: When mounted to the table  
Check the allowable overhang from the cross point of the load mass and driving speed.  
b: When mounted to the end plate  
The allowable overhang is found by multiplying the allowable overhang by 1/2 (coefficient\*1).
  - ③ L3max: It is possible to use within the "Allowable overhang range" in the selection graph if it is within the allowable range of the load mass and driving speed
- \*1 Coefficient varies depending on the model and stroke. Refer to page 159 for details.

#### 5 Overhang in the operating conditions

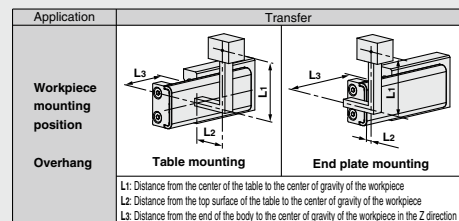
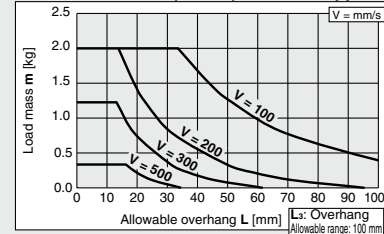
This product can be used with the overhang required (L1, L2, L3 of No.3) if it is within the allowable overhang range (L1max, L2max, L3max of No.4).

\* When the required overhang exceeds the allowable overhang, review the overhang, load mass, driving speed, etc., and reconfirm that they are acceptable.

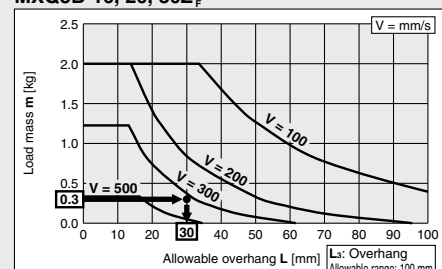
#### Precautions for Metal Stopper with Bumper

When a metal stopper with bumper is used in a vertical position, thrust larger than "the operating load mass + full compression force of metal stopper with bumper" is required. This needs to be considered when adjusting the operating pressure and selecting the cylinder size.  
\* The metal stopper with bumper may not be fully compressed due to lack of thrust.

MXQ8B-10, 20, 30Z(D, E, F) Rubber stopper



MXQ8B-10, 20, 30Z<sup>D</sup>



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

## For Pressing

### Model Selection Steps

#### 1 Necessary conditions

- Equipment to be used
- Required pressing force or operating pressure
- Overhang

#### 2 Select a graph.

Select the applicable graph by body configuration (from page 191).

#### 3 Determine the overhang.

Determine the overhang at L1 and L2.

- \* Positional relationships between L1 and L2 do not change regardless of the body mounting direction.

#### 4 Check the allowable pressing force.

Confirm the allowable pressing force Nmax with the overhang.

Nmax: ① When mounted to the table

Determine the allowable pressing force with the cross point of the overhang at L1 and L2 and stroke.

② When mounted to the end plate

The allowable valve is found by multiplying the allowable pressing force by 1/2 (coefficient\*1).

- \*1 Coefficient varies depending on the model and stroke. Refer below for details.

#### 5 Allowable pressing force in the operating conditions

This product can be used with the pressing force required if it is within the allowable pressing force range.

- \* When the required pressing force exceeds the allowable pressing force, review the operating pressing force, operating pressure, overhang, etc., and reconfirm that they are acceptable.

#### 6 Check the allowable supply pressure.

The allowable supply pressure can be confirmed with the selection graph.

- \* Coefficient for the allowable overhang and the allowable pressing force of the models shown below is 1/4.

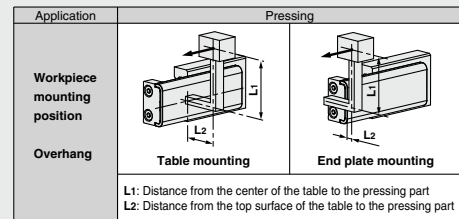
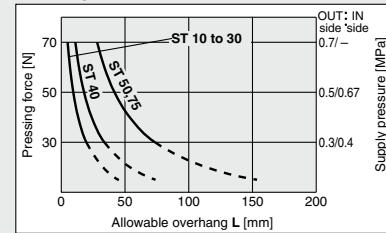
| Model       | Stroke        |
|-------------|---------------|
| MXQ8(A, C)  | 50, 75        |
| MXQ12(A, C) | 75, 100       |
| MXQ16(A)    | 100, 125      |
| MXQ20(A)    | 100, 125, 150 |
| MXQ25(A)    | 125, 150      |
| MXQ6B       | 50, 75        |
| MXQ8B       | 75, 100       |
| MXQ12B      | 100, 125      |
| MXQ16B      | 100, 125, 150 |
| MXQ20B      | 125, 150      |

#### Precautions for Metal Stopper with Bumper

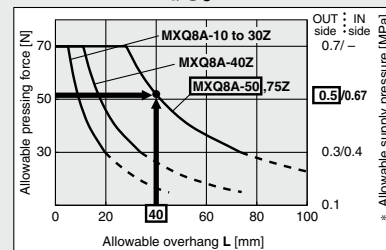
When a metal stopper with bumper is used in a vertical position, thrust larger than “the operating load mass + full compression force of metal stopper with bumper” is required. This needs to be considered when adjusting the operating pressure and selecting the cylinder size.

- \* The metal stopper with bumper may not be fully compressed due to lack of thrust.

#### MXQ 8<sup>A</sup>C-□Z



#### MXQ 8<sup>A</sup>C-□Z



\* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.



**Selection Example 1 (Transfer, Table Mounting)**

**Selection conditions**

Selected model: **MXQ8B-30ZEJ**

Load mass: 0.3 kg

Average operating speed: Extension stroke end: 300 mm/s

\* Average operating speed: Speed calculated by dividing the stroke by the time from starting operation until reaching the end

Overhang: **L1 = 20, L2 = 20, L3 = 50**

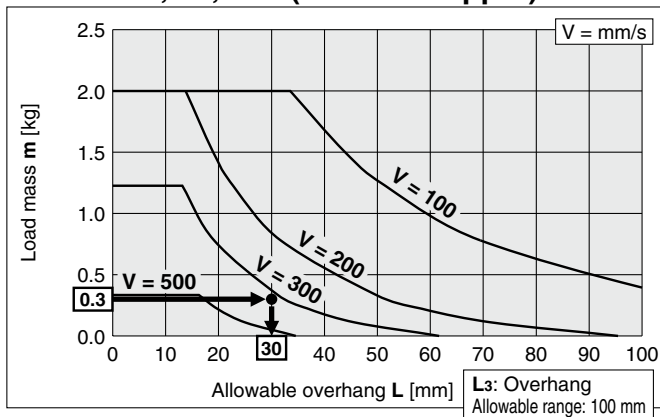
Stroke adjuster: Extension stroke end: Rubber stopper  
Retraction stroke end: Shock absorber

**Selection method**

**Determine the extension stroke end (rubber stopper).**

- Find the max. overhang of **L1, L2, and L3** from the selection graph.  
**L1, L2:** Use the graph to find the **L** when the speed is 300 mm/s and load mass is  $m = 0.3$  kg.  $L = 30$  mm → **L1, L2 max. overhang = 30 mm**  
**L3:** Check the allowable overhang range shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, L3** are lower than the max. overhang.  
**L1 = 20 mm and L2 = 20 mm OK (L1, L2 max. overhang = 30 mm),**  
**L3 = 50 mm OK (L3 max. overhang = 100 mm)**

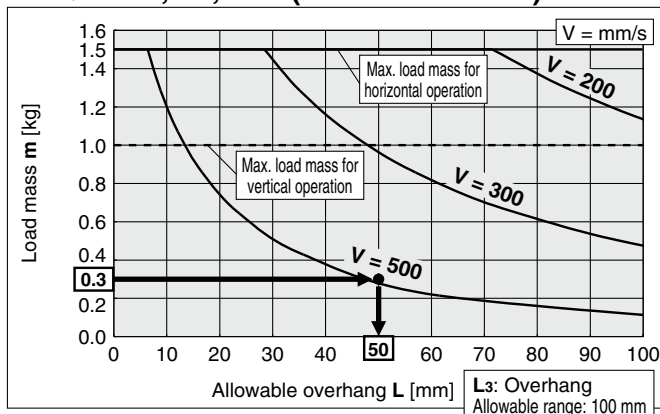
**MXQ8B-10, 20, 30Z (Rubber stopper)**



**Determine the retraction stroke end (shock absorber).**

- Find the max. overhang of **L1, L2, and L3** from the selection graph.  
**L1, L2:** Use the graph to find the **L** when the speed is 500 mm/s and load mass is  $m = 0.3$  kg.  $L = 50$  mm → **L1, L2 max. overhang = 50 mm**  
**L3:** Check the allowable overhang range shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, and L3** are lower than the max. overhang.  
**L1 = 20 mm and L2 = 20 mm OK (L1, L2 max. overhang = 50 mm),**  
**L3 = 50 mm OK (L3 max. overhang = 100 mm)**

**MXQ8B-10, 20, 30Z (Shock absorber)**



Therefore, the **MXQ8B-30ZEJ** can be used.

**Selection Example 2 (Transfer, End Plate Mounting)**

**Selection conditions**

Selected model: **MXQ8B-30ZD**

Load mass: 0.3 kg

Average operating speed: 300 mm/s

\* Average operating speed: Speed calculated by dividing the stroke by the time from starting operation until reaching the end

Overhang: **L1 = 20, L2 = 10, L3 = 50**

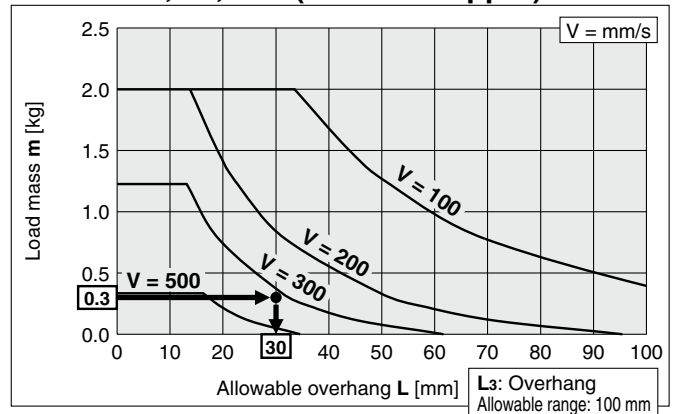
Stroke adjuster: Extension stroke end: Rubber stopper  
Retraction stroke end: Rubber stopper

**Selection method**

- Find the max. overhang of **L1, L2, and L3** from the selection graph.  
**L1:** Use the graph to find the **L** when the speed is 300 mm/s and load mass is  $m = 0.3$  kg.  $L = 30$  mm → **L1 max. overhang = 30 mm**  
**L2:** Use the graph to find the **L** when the speed is 300 mm/s and load mass is  $m = 0.3$  kg and multiply it by 1/2.  
 $L = 30$  mm → **L2 max. overhang = 30 mm / 2 = 15 mm**  
 \* For end plate mounting, **L2** is 1/2 of the **L** which is found from the graph.  
**L3:** Confirm that this value is lower than the max. overhang shown at the bottom right of the graph. **L3 max. overhang = 100 mm**
- Confirm that **L1, L2, and L3** are lower than the max. overhang.  
**L1 = 20 mm OK (L1 max. overhang = 30 mm)**  
**L2 = 10 mm OK (L2 max. overhang = 15 mm)**  
**L3 = 50 mm OK (L3 max. overhang = 100 mm)**

Therefore, the **MXQ8B-30ZD** can be used.

**MXQ8B-10, 20, 30Z (Rubber stopper)**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection



## Selection Example 3 (Pressing, Table Mounting)

### Selection conditions

Selected model: **MXQ8B-50Z**

Operating direction: OUT

Operating pressure: 0.5 MPa (Pressing force: 51 N)

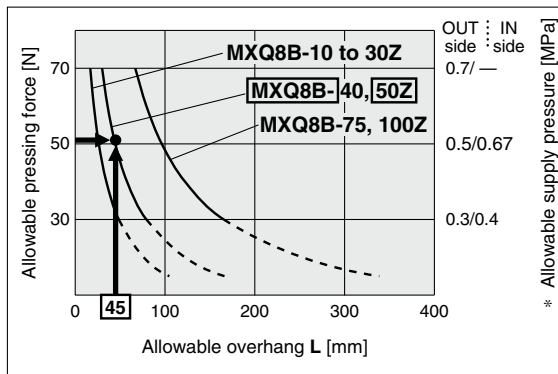
Overhang: L1 = 20, L2 = 30

### Selection method

- Find the max. overhang of L1 and L2 from the selection graph. Find the L at an operating pressure of 0.5 MPa from the graph. L1, L2 max. overhang = 45 mm
- Confirm that L1 and L2 are lower than the max. overhang. L1 = 20 mm and L2 = 30 mm OK (L1, L2 max. overhang = 45 mm)

Therefore, the **MXQ8B-50Z** can be used with a supply pressure of 0.5 MPa.

### MXQ 8B-□Z



\* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.

## Selection Example 4 (Pressing, End Plate Mounting)

### Selection conditions

Selected model: **MXQ8B-50Z**

Operating direction: OUT

Operating pressure: 0.5 MPa (Pressing force: 50 N)

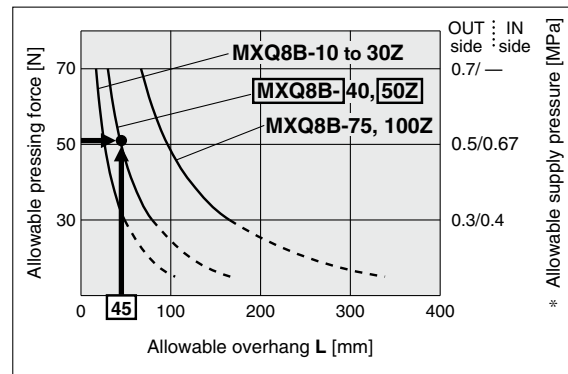
Overhang: L1 = 20, L2 = 10

### Selection method

- Find the max. overhang of L1 and L2 from the selection graph. L1: Find the L at an operating pressure of 0.5 MPa from the graph, and multiply it by 1/2. L1 max. overhang = 22.5 mm L2: Find an L at an operating pressure of 0.5 MPa from the graph, and multiply it by 1/2. L2 max. overhang = 22.5 mm \* For end plate mounting, L1 and L2 are 1/2 of the L which is found from the graph.
- Confirm that L1 and L2 are lower than the max. overhang. L1 = 20 mm OK (L1 max. overhang = 22.5 mm) L2 = 10 mm OK (L2 max. overhang = 22.5 mm)

Therefore, the **MXQ8B-50Z** can be used.

### MXQ 8B-□Z



\* The allowable supply pressure on the OUT side and IN side is the theoretical output of the cylinder when pressing force is required.

## ⚠ Caution

### 1. Operate loads within the range of the operating limits.

Select a model according to the model selection steps.

If the product is used outside of the operating limits, adverse effects such as play at the guide, degraded accuracy, and shortened product life may result.

### 2. If an intermediate stop is performed by an external stopper, be careful of ejection when restarting.

If lurching occurs, damage can result. If a slide table is stopped at an intermediate position by an external stopper and then moved forwards, after the slide table is returned to the back to retract the stopper, supply pressure to the opposite port to operate the slide table.

### 3. Do not use the product in such a way that excessive external force or impact force is applied to it.

Malfunction or damage to the table may result.

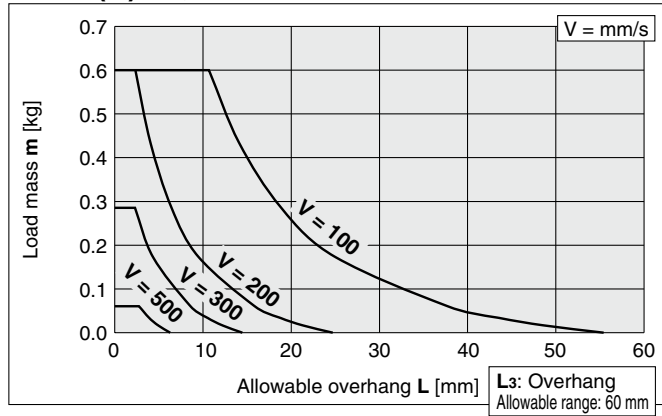
Although the table has adequate strength, if it is damaged, protect your hands with gloves. Otherwise, injury may result.

MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)  
 MXQ 8<sup>A</sup>C-□Z□, MXQ 8-□Z□ (Height interchangeable type)

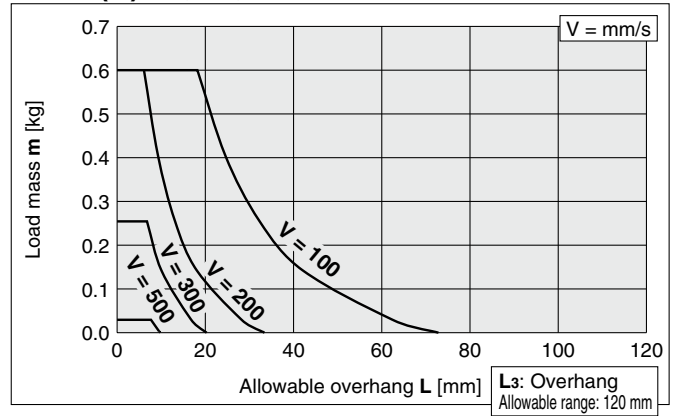
For Transfer/  
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

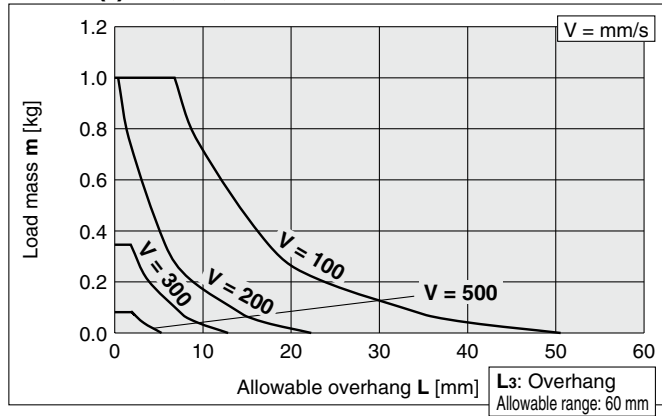
MXQ6(A)-10, 20Z□



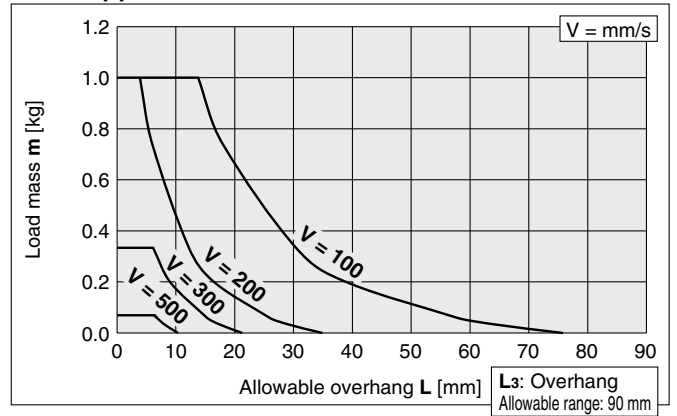
MXQ6(A)-30, 40, 50Z□



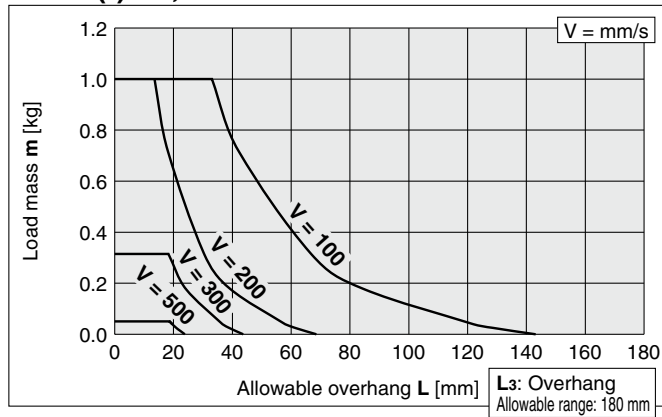
MXQ8(ε)-10, 20, 30Z□



MXQ8(ε)-40Z□



MXQ8(ε)-50, 75Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

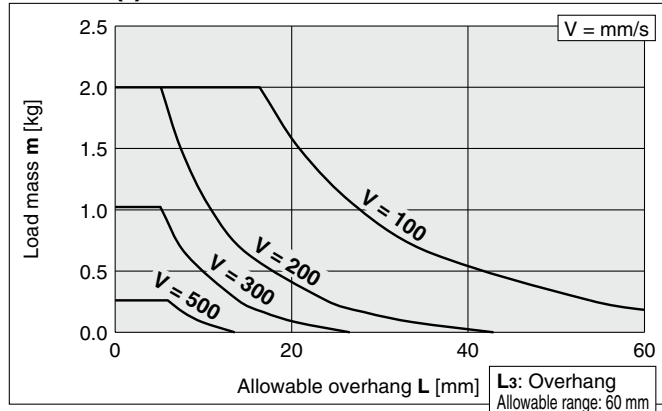
MXQ 12<sup>A</sup><sub>C</sub>-□Z□, MXQ 12-□Z□ (interchangeable type) Height

MXQ 16A-□Z□, MXQ 16-□Z□ (interchangeable type) Height

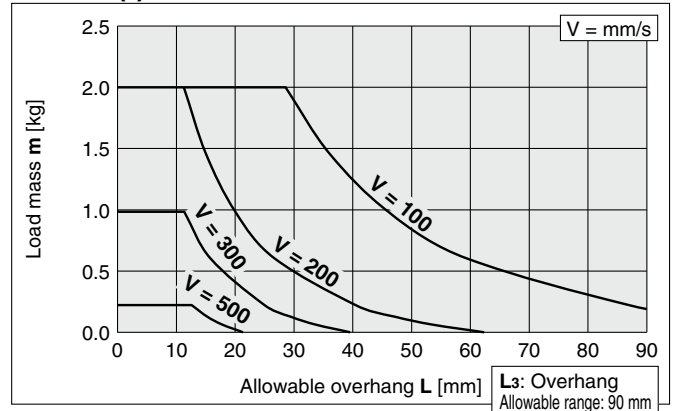
For Transfer/  
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)  
L1, L2: Check from the cross point of the load mass and driving speed.  
L3: Can be used within the "Allowable overhang range"  
in the selection graph if the load mass and driving  
speed values are within the allowable range

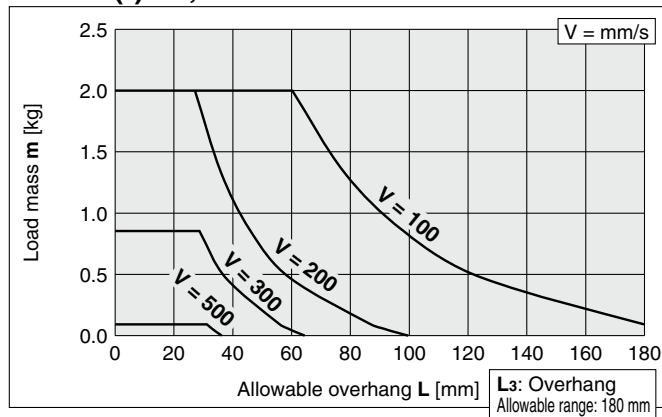
MXQ12(Δ)-10, 20, 30Z□



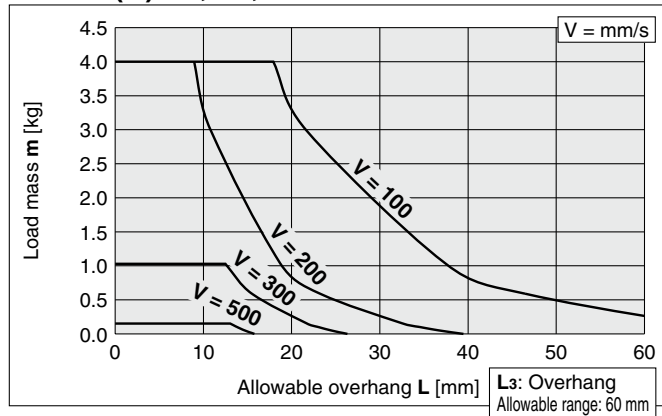
MXQ12(Δ)-40, 50Z□



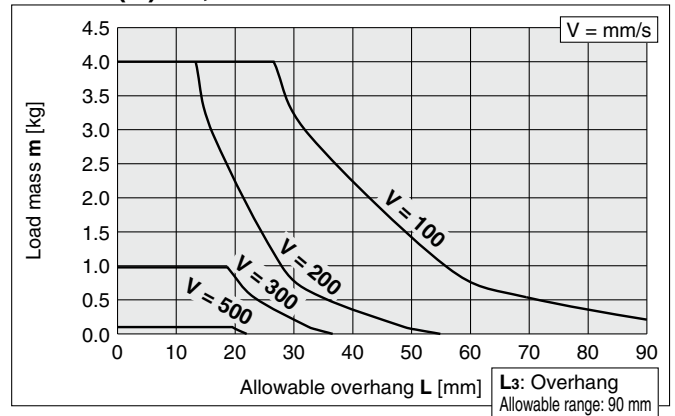
MXQ12(Δ)-75, 100Z□



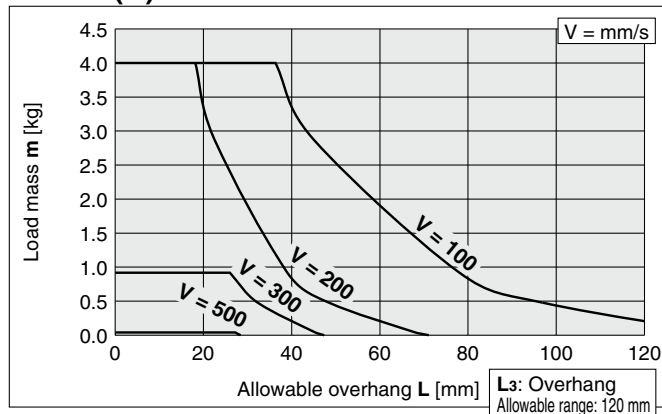
MXQ16(A)-10, 20, 30Z□



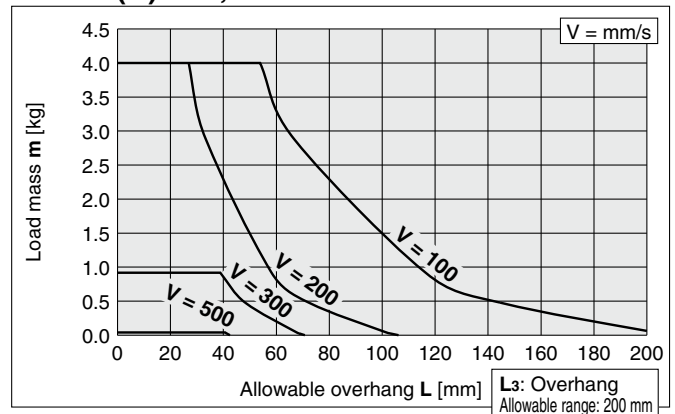
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□

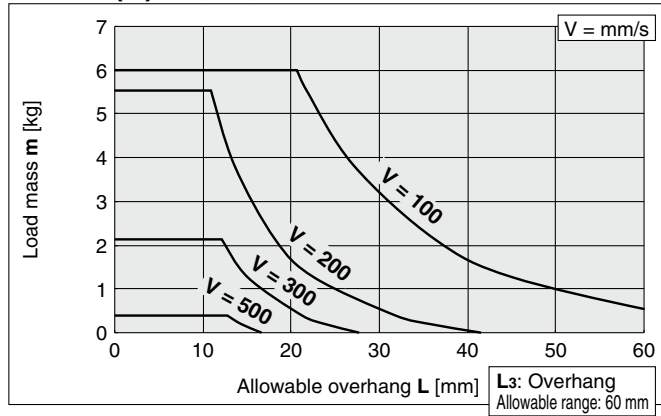


MXQ **20A**-□Z□, MXQ **20**-□Z□ (interchangeable type)  
 MXQ **25A**-□Z□, MXQ **25**-□Z□ (interchangeable type)

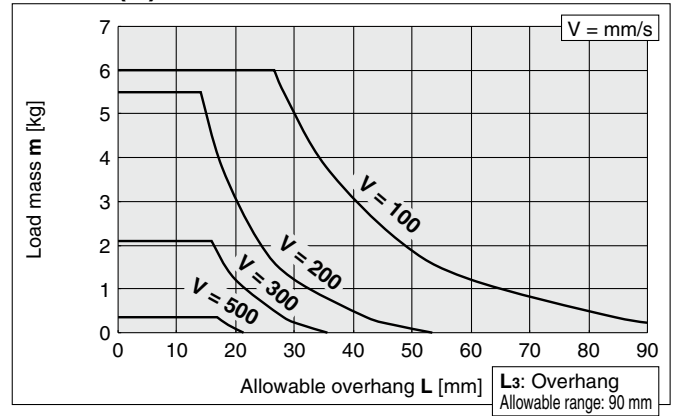
For Transfer/  
Without Adjuster

Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

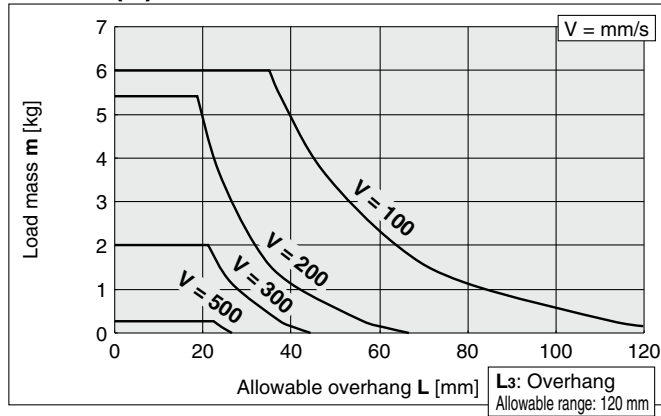
## MXQ20(A)-10, 20, 30, 40Z□



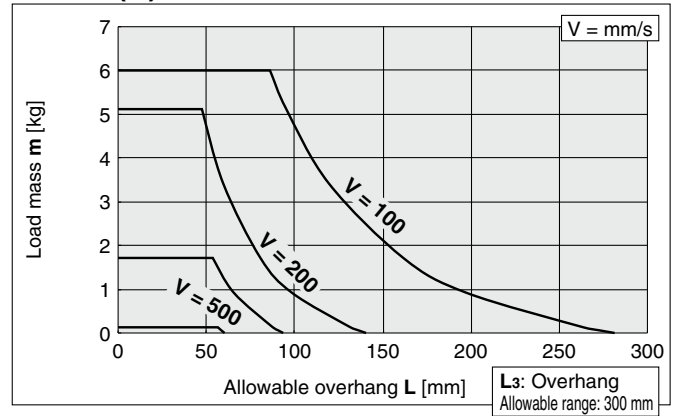
## MXQ20(A)-50Z□



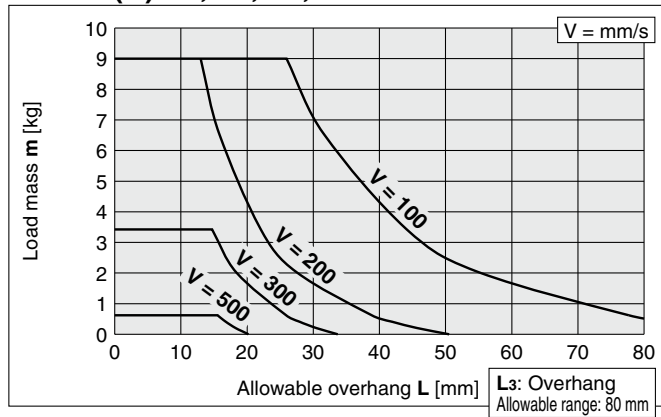
## MXQ20(A)-75Z□



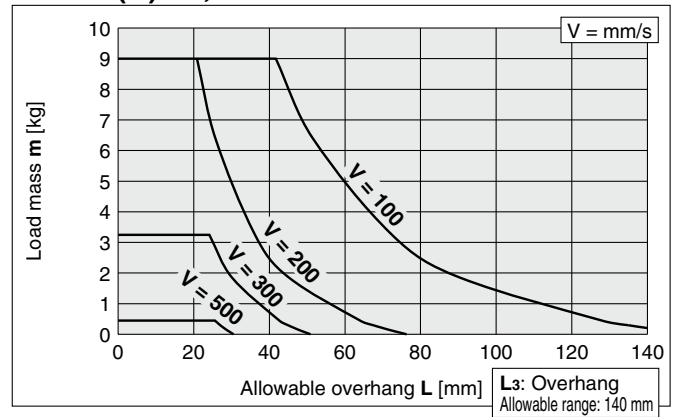
## MXQ20(A)-100, 150Z□



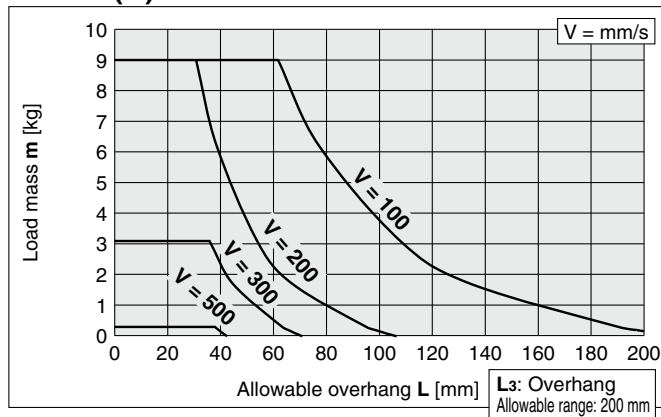
## MXQ25(A)-10, 20, 30, 40Z□



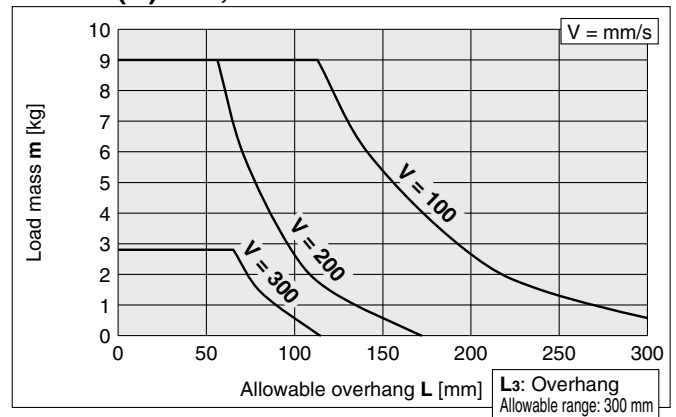
## MXQ25(A)-50, 75Z□



## MXQ25(A)-100Z□



## MXQ25(A)-125, 150Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

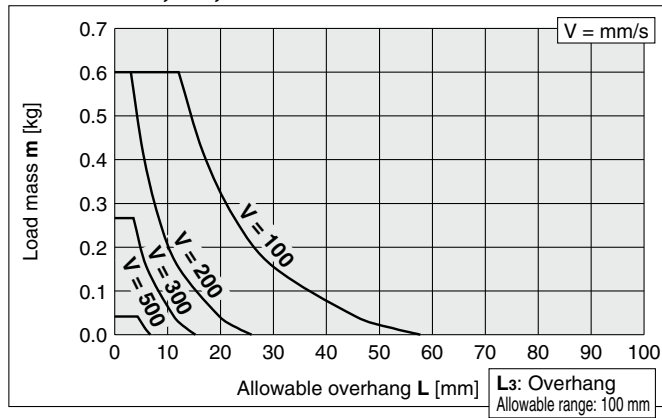
Model Selection

# MXQ Series

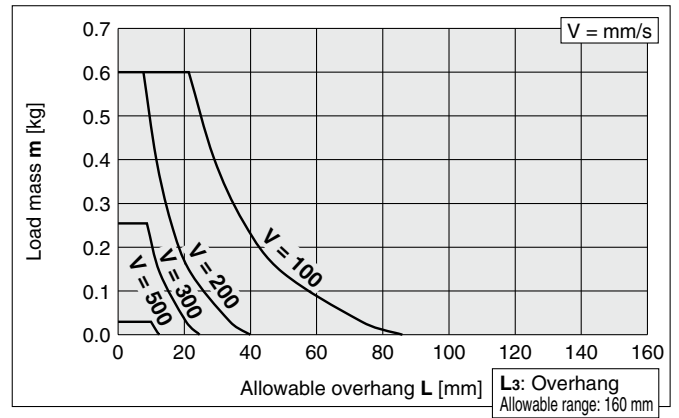
Determine the overhang. (Refer to page 158 for details.)  
**L<sub>1</sub>, L<sub>2</sub>:** Check from the cross point of the load mass and driving speed.  
**L<sub>3</sub>:** Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 6B-□Z□/For Transfer/Without Adjuster

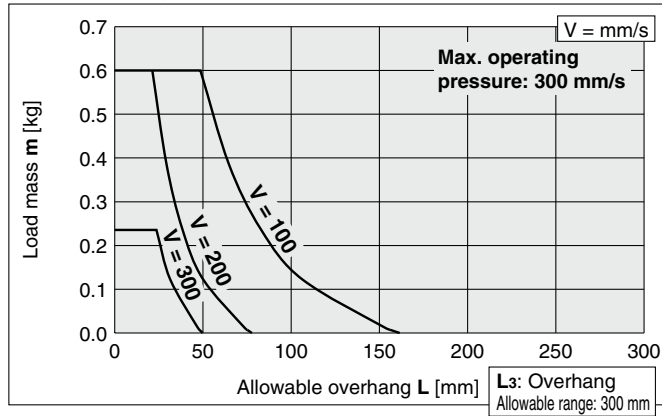
### MXQ6B-10, 20, 30Z□



### MXQ6B-40Z□



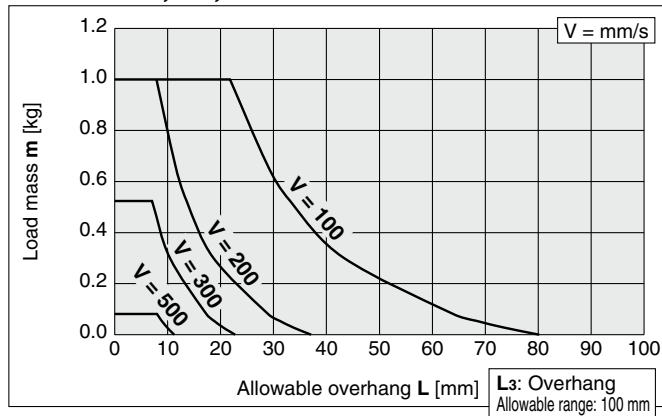
### MXQ6B-50, 75Z□



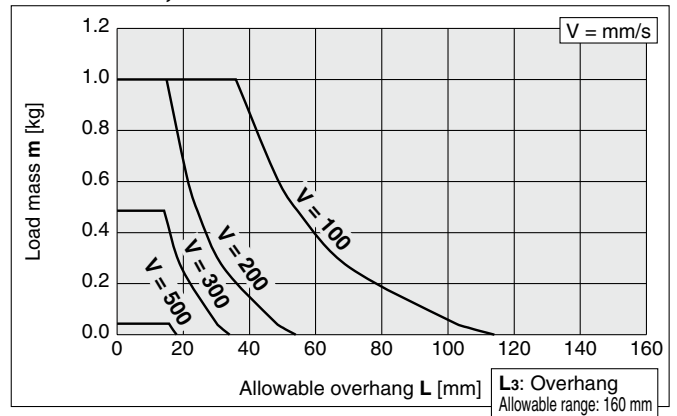
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range"  
 in the selection graph if the load mass and driving  
 speed values are within the allowable range

**MXQ 8B-□Z□, MXQ 12B-□Z□** / For Transfer/  
 Without Adjuster

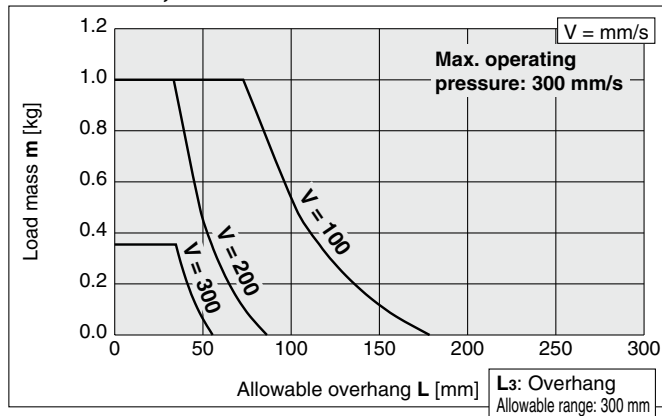
**MXQ8B-10, 20, 30Z□**



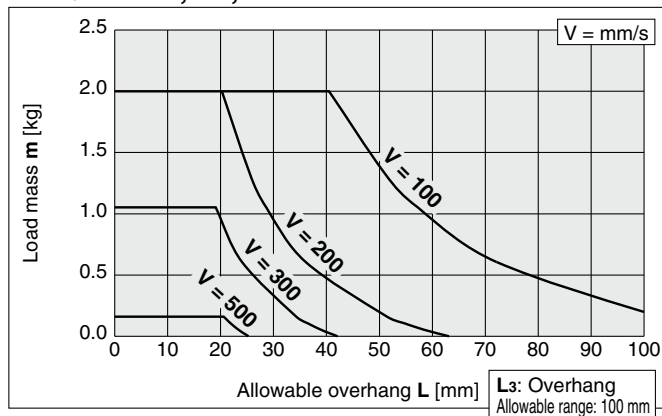
**MXQ8B-40, 50Z□**



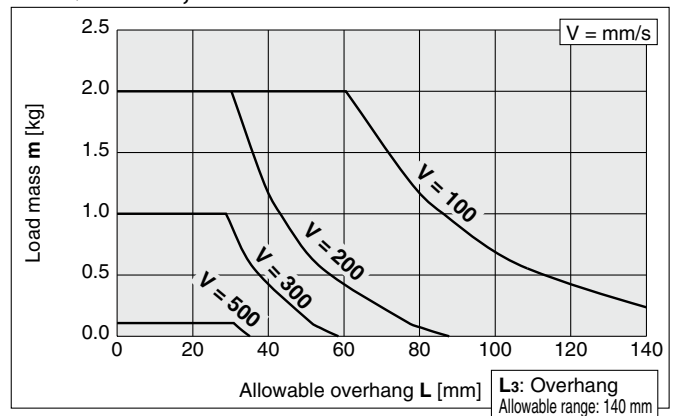
**MXQ8B-75, 100Z□**



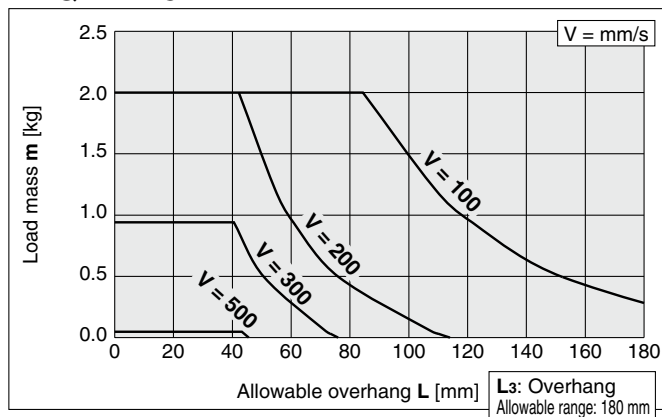
**MXQ12B-10, 20, 30Z□**



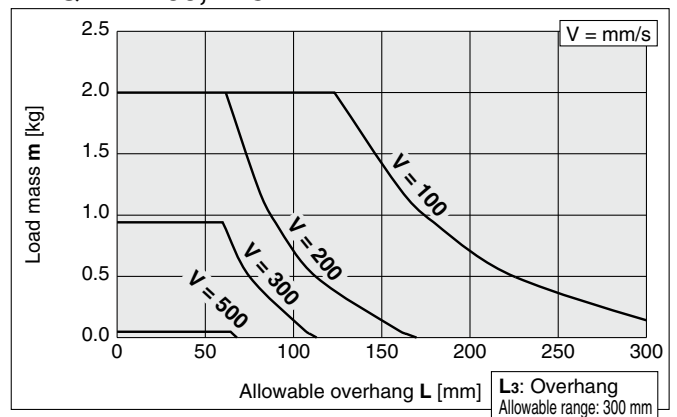
**MXQ12B-40, 50Z□**



**MXQ12B-75Z□**



**MXQ12B-100, 125Z□**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster  
 Options

Auto Switch  
 Mounting

Made to Order

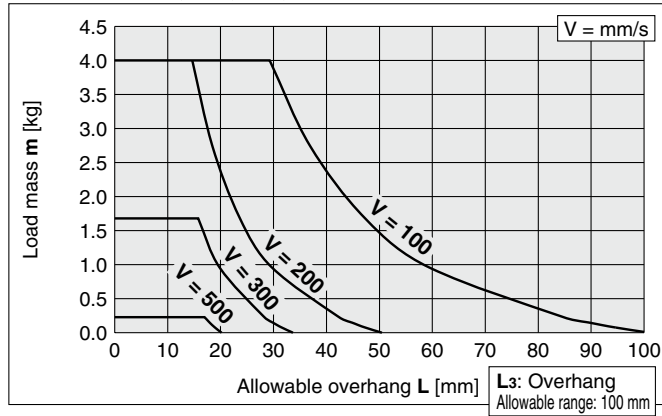
Model Selection

# MXQ Series

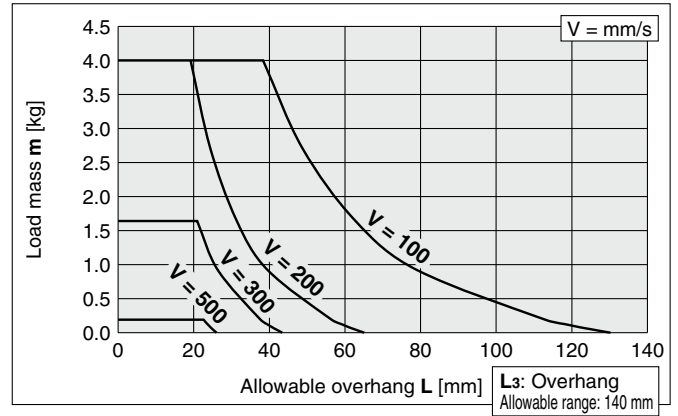
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 16B-□Z□, MXQ 20B-□Z□ / For Transfer/ Without Adjuster

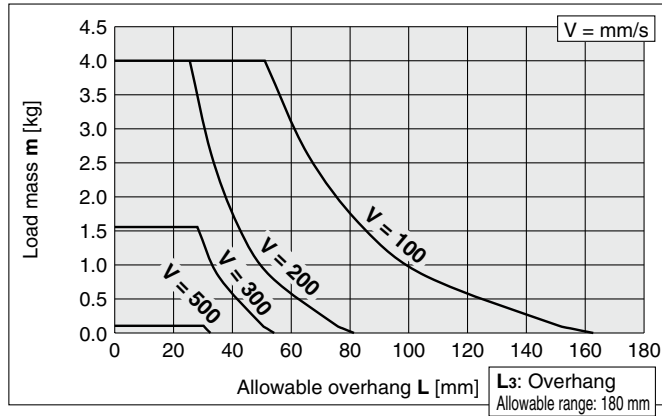
**MXQ16B-10, 20, 30, 40Z□**



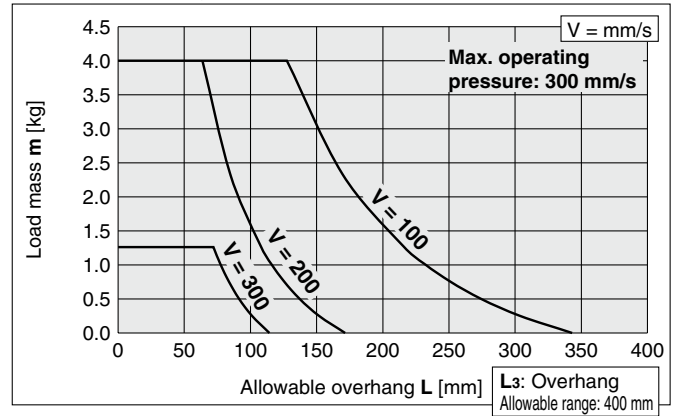
**MXQ16B-50Z□**



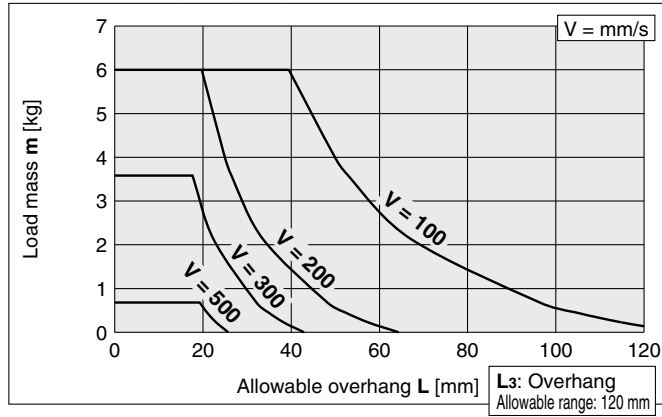
**MXQ16B-75Z□**



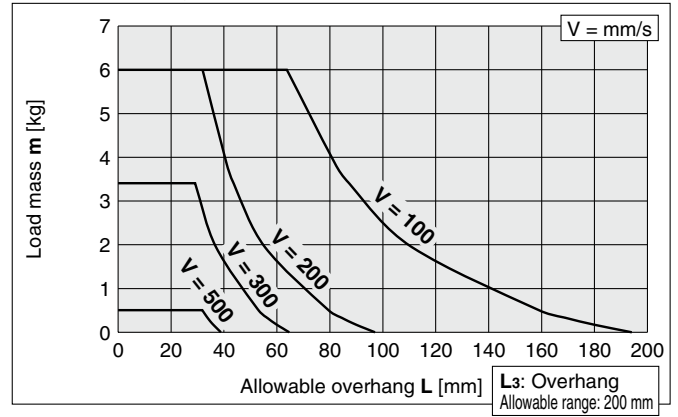
**MXQ16B-100, 150Z□**



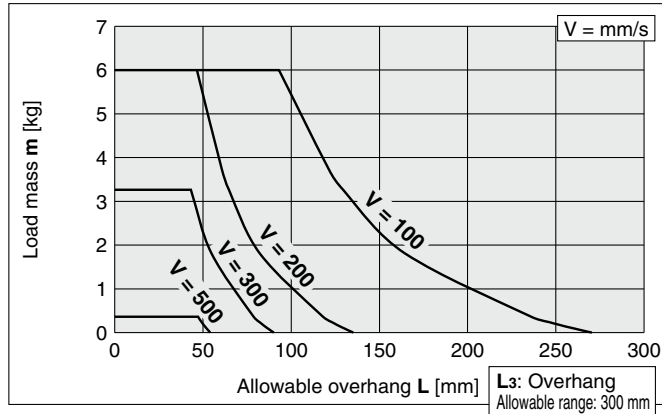
**MXQ20B-10, 20, 30, 40Z□**



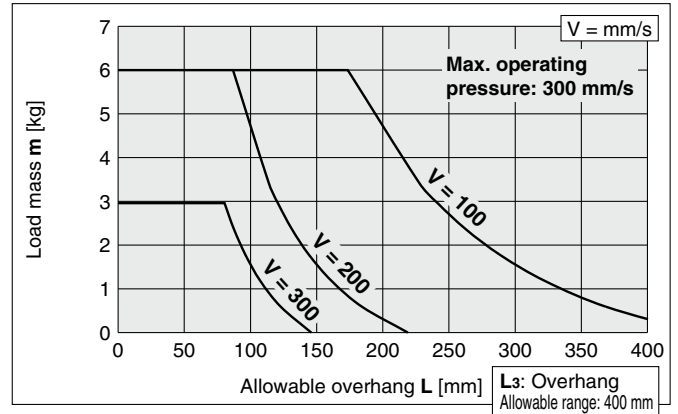
**MXQ20B-50, 75Z□**



**MXQ20B-100Z□**



**MXQ20B-125, 150Z□**



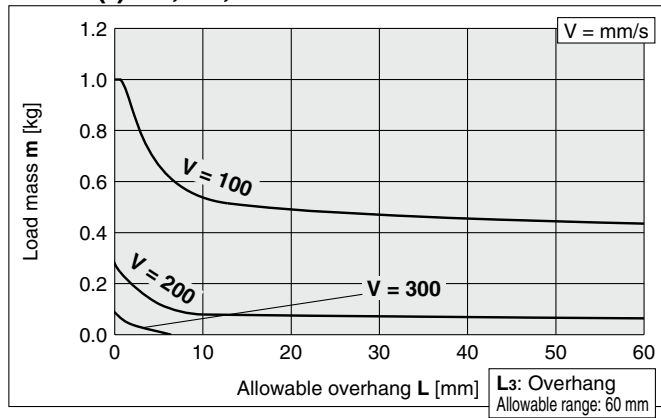


Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

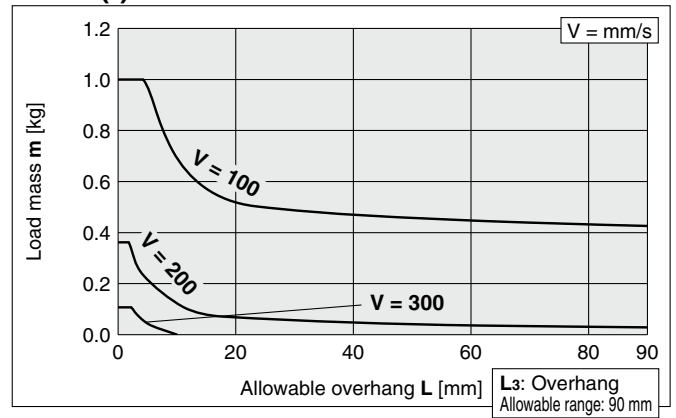
## MXQ 8<sup>A</sup><sub>C</sub>-□Z□, MXQ 8-□Z□ (Height interchangeable type)

For Transfer/  
Metal Stopper with Bumper

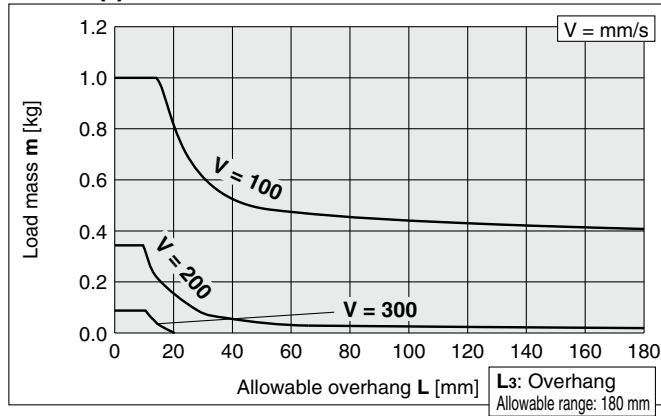
### MXQ8(Δ)-10, 20, 30Z□



### MXQ8(Δ)-40Z□



### MXQ8(Δ)-50, 75Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection

# MXQ Series

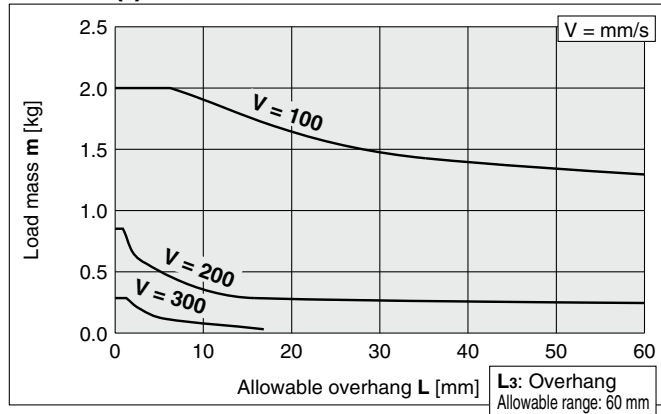
MXQ 12<sup>A</sup>-□Z□, MXQ 12-□Z□ (interchangeable type) Height

MXQ 16A-□Z□, MXQ 16-□Z□ (interchangeable type) Height

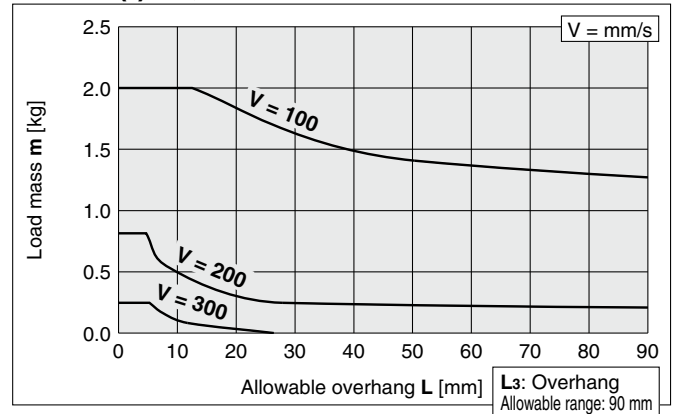
For Transfer/  
Metal Stopper with Bumper

Determine the overhang. (Refer to page 158 for details.)  
L1, L2: Check from the cross point of the load mass and driving speed.  
L3: Can be used within the "Allowable overhang range"  
in the selection graph if the load mass and driving  
speed values are within the allowable range

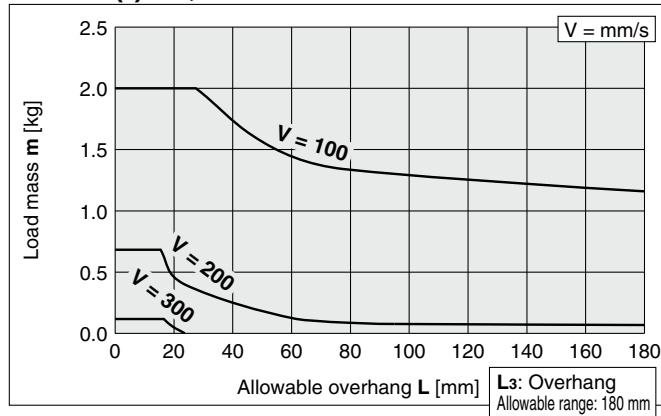
MXQ12(Δ)-10, 20, 30Z□



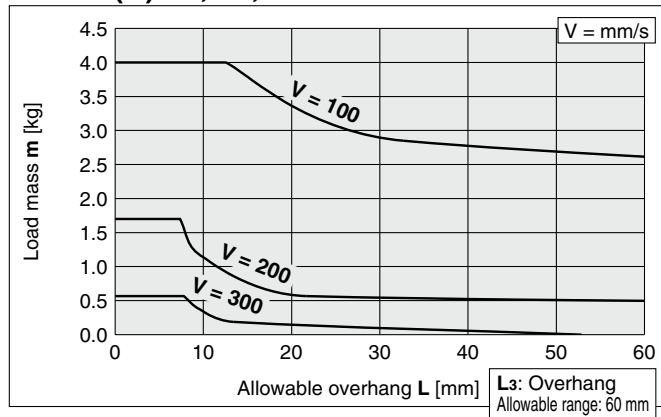
MXQ12(Δ)-40, 50Z□



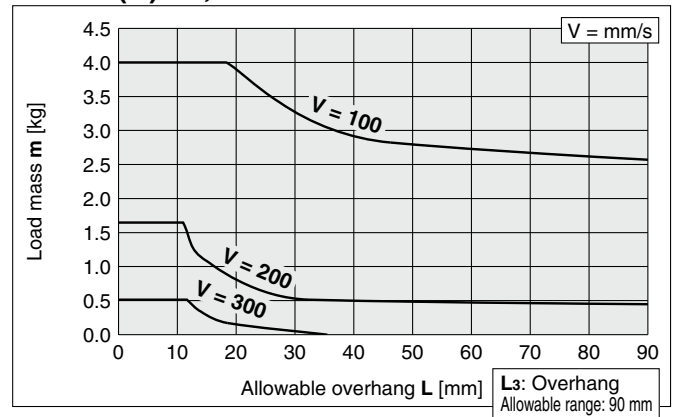
MXQ12(Δ)-75, 100Z□



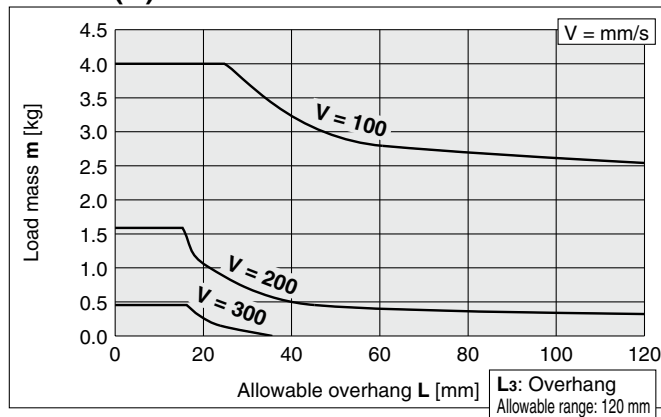
MXQ16(A)-10, 20, 30Z□



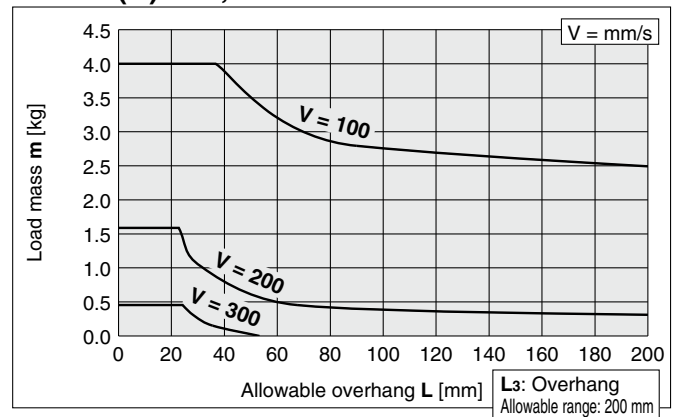
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□

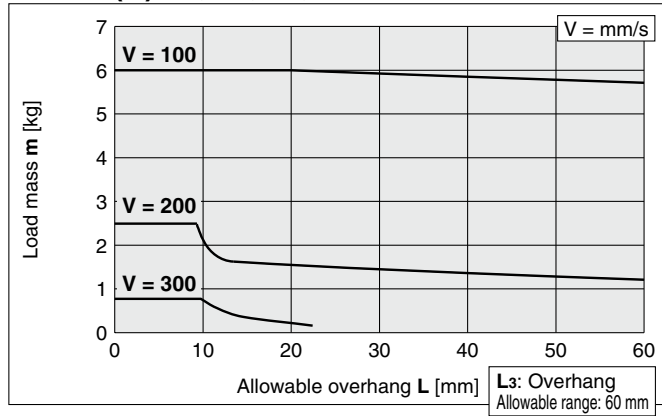


MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)  
 MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

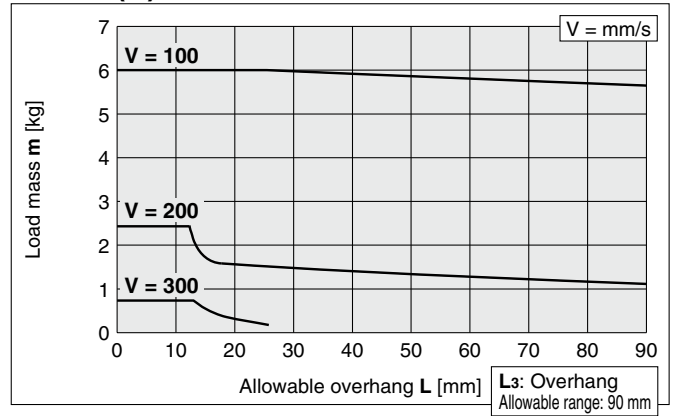
For Transfer/  
Metal Stopper with Bumper

Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

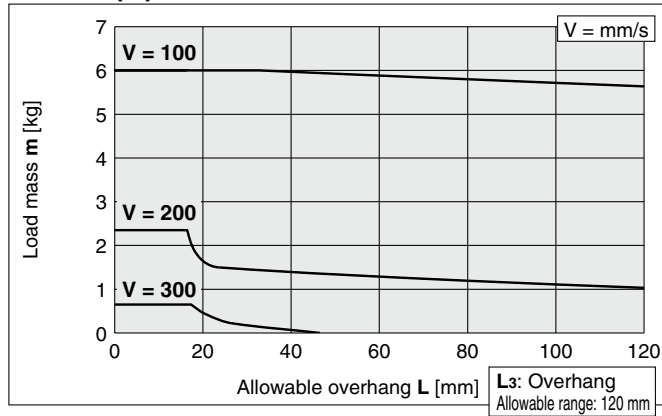
**MXQ20(A)-10, 20, 30, 40Z□**



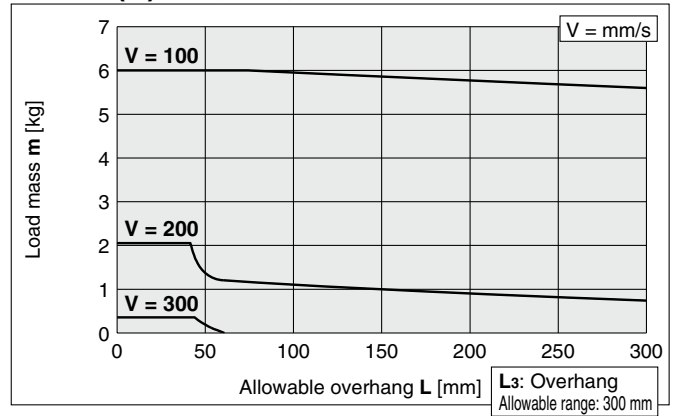
**MXQ20(A)-50Z□**



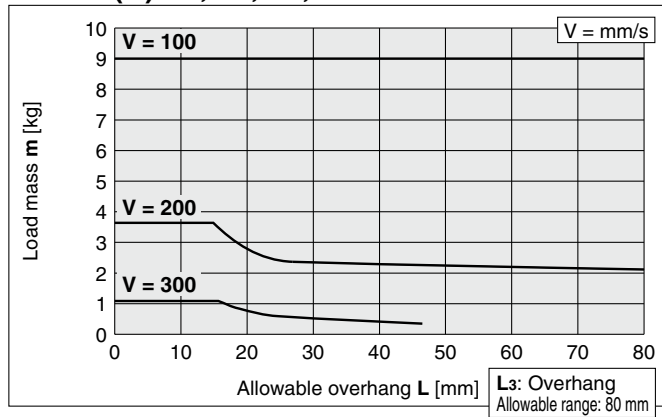
**MXQ20(A)-75Z□**



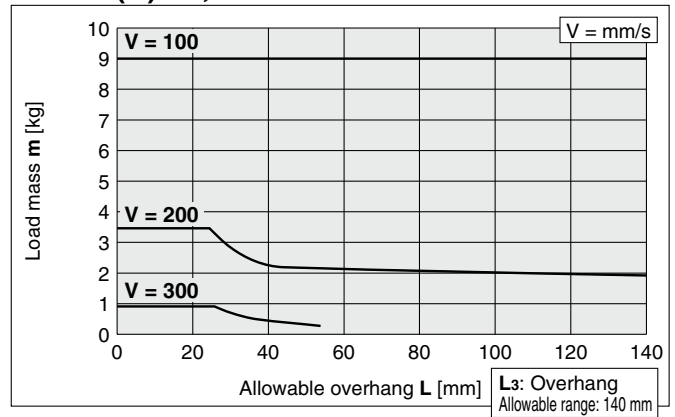
**MXQ20(A)-100, 125, 150Z□**



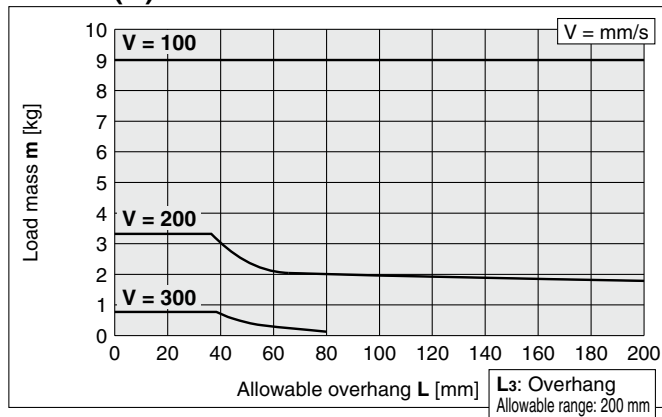
**MXQ25(A)-10, 20, 30, 40Z□**



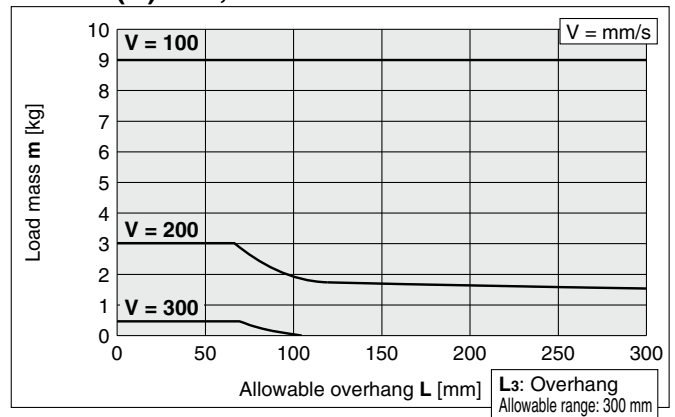
**MXQ25(A)-50, 75Z□**



**MXQ25(A)-100Z□**



**MXQ25(A)-125, 150Z□**



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

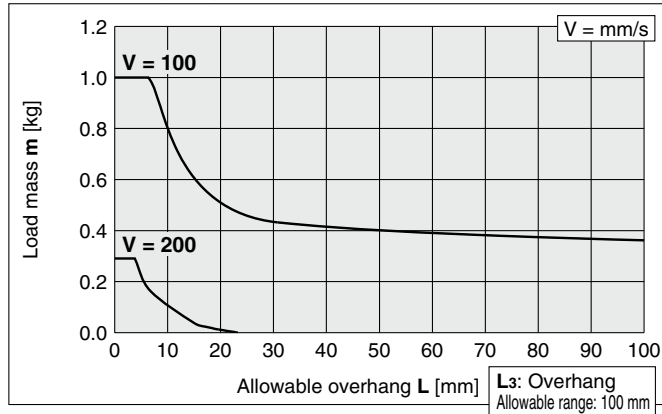
Made to Order

Model Selection

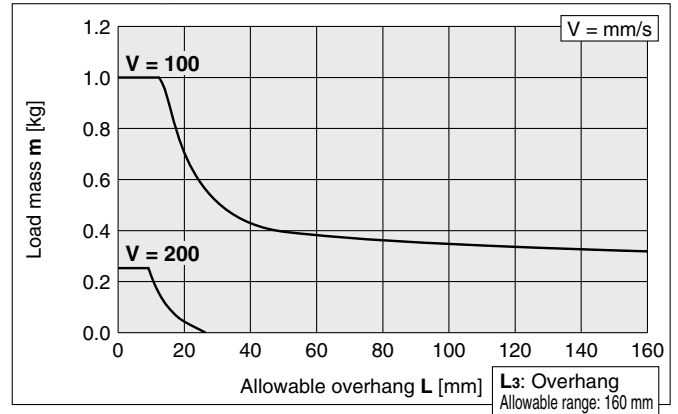
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 8B-□Z□, MXQ 12B-□Z□ / For Transfer/ Metal Stopper with Bumper

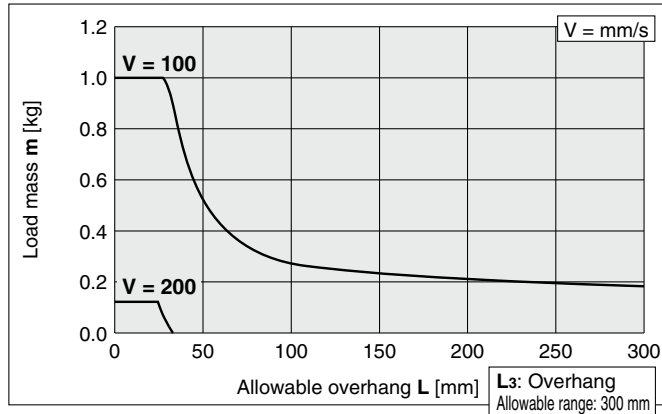
### MXQ8B-10, 20, 30Z□



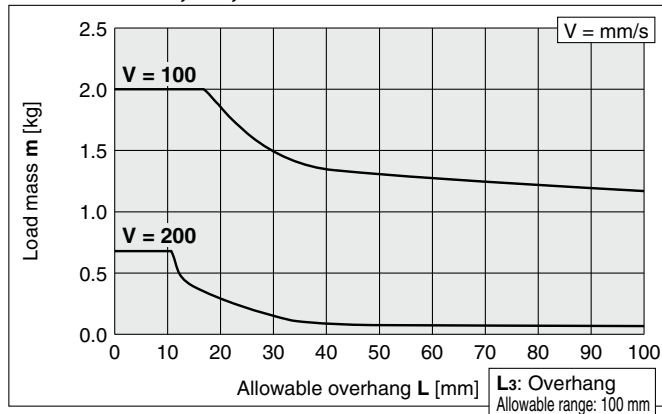
### MXQ8B-40, 50Z□



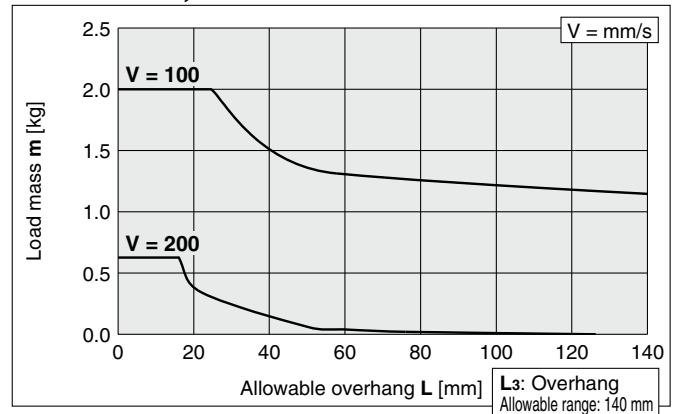
### MXQ8B-75, 100Z□



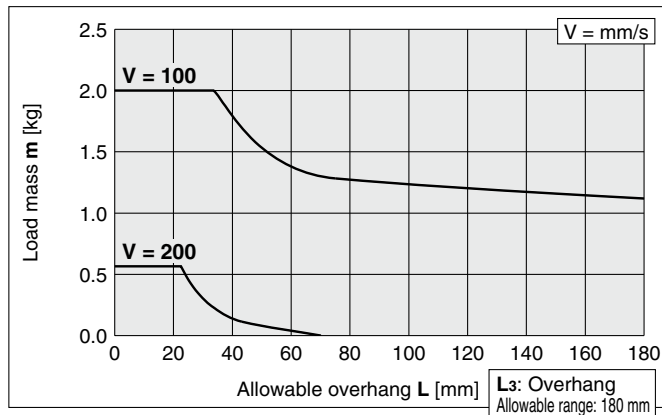
### MXQ12B-10, 20, 30Z□



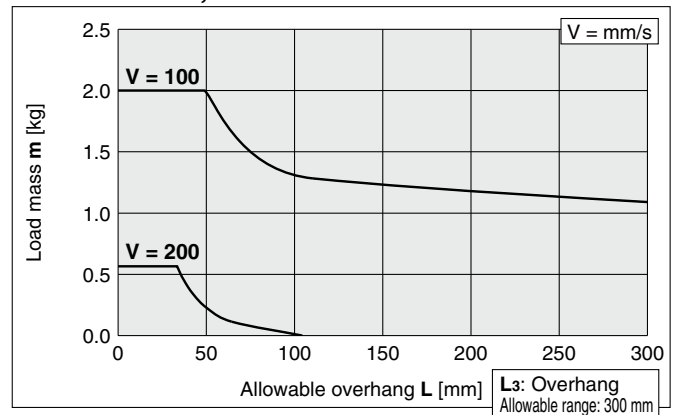
### MXQ12B-40, 50Z□



### MXQ12B-75Z□



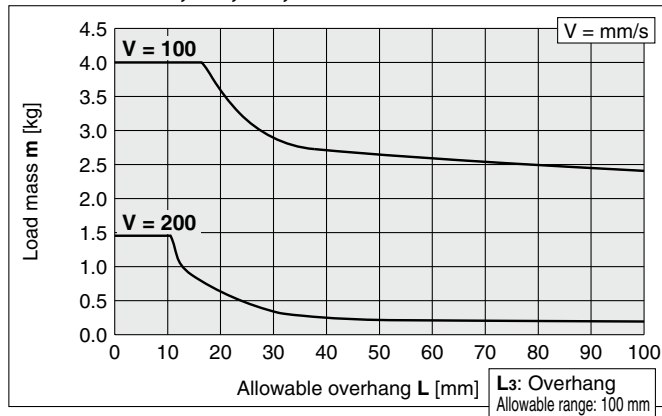
### MXQ12B-100, 125Z□



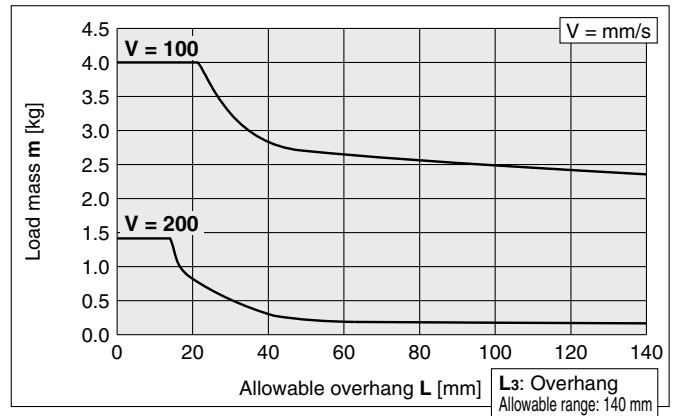
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

**MXQ 16B-□Z□, MXQ 20B-□Z□** / For Transfer/  
 Metal Stopper with Bumper

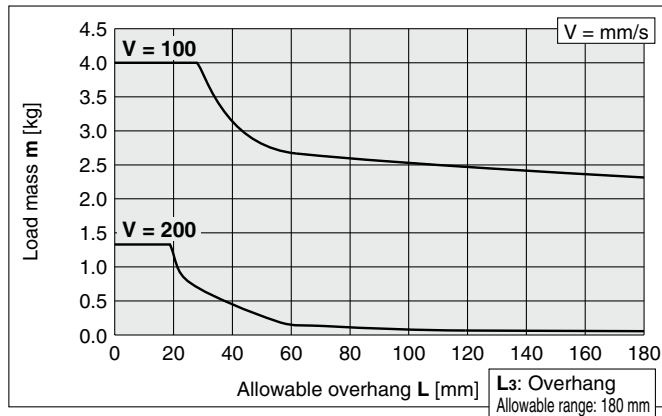
**MXQ16B-10, 20, 30, 40Z□**



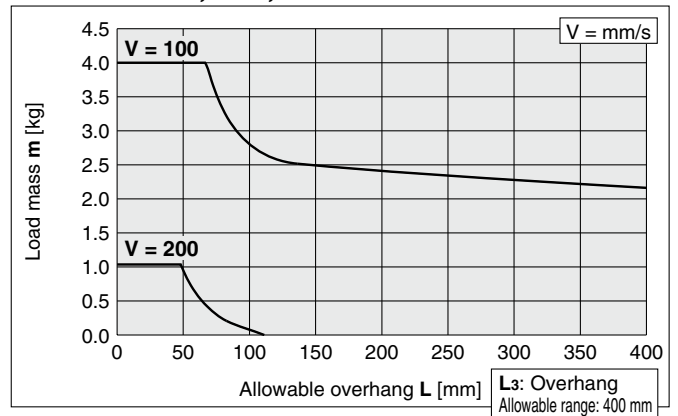
**MXQ16B-50Z□**



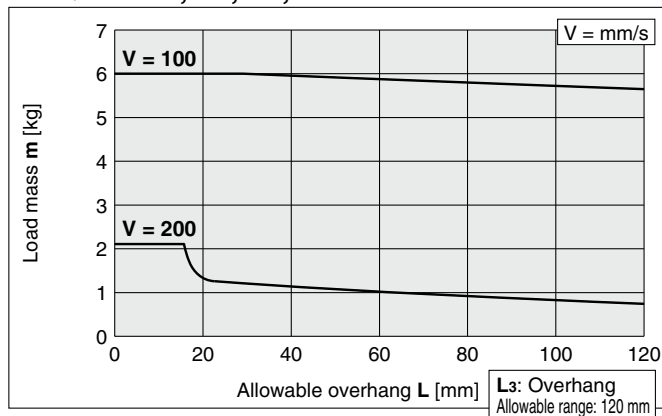
**MXQ16B-75Z□**



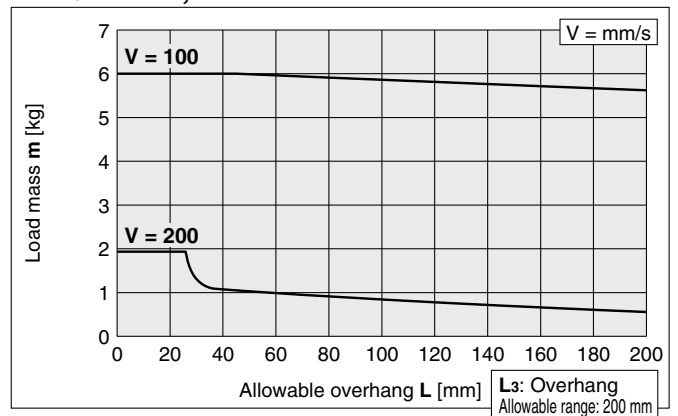
**MXQ16B-100, 125, 150Z□**



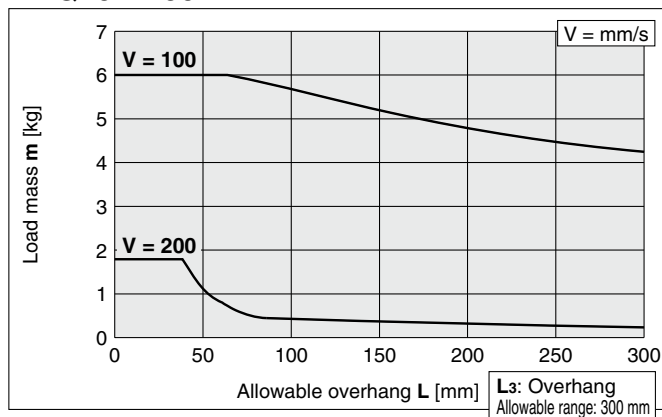
**MXQ20B-10, 20, 30, 40Z□**



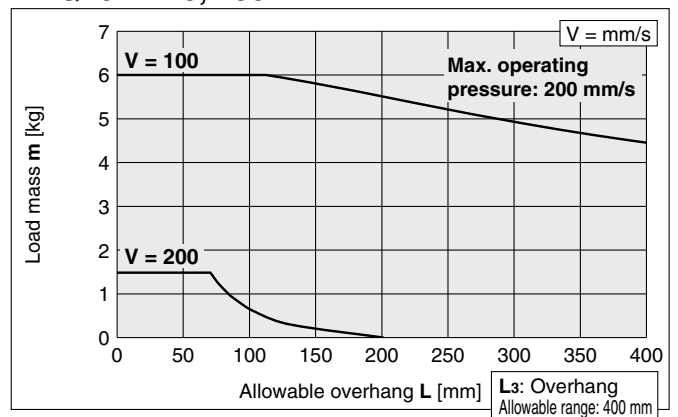
**MXQ20B-50, 75Z□**



**MXQ20B-100Z□**



**MXQ20B-125, 150Z□**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster  
 Options

Auto Switch  
 Mounting

Made to Order

Model Selection

# MXQ Series

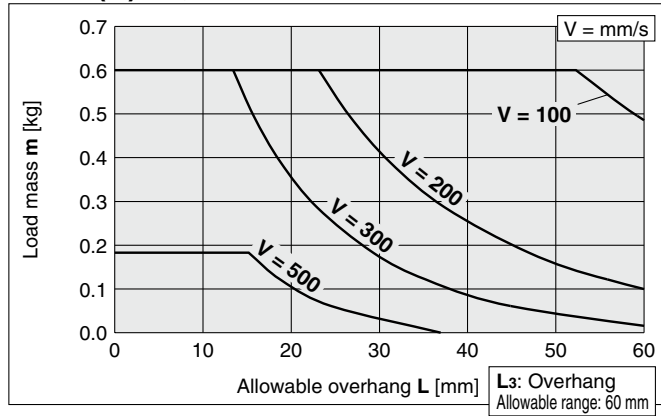
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8<sup>A</sup>C-□Z□, MXQ 8-□Z□ (Height interchangeable type)

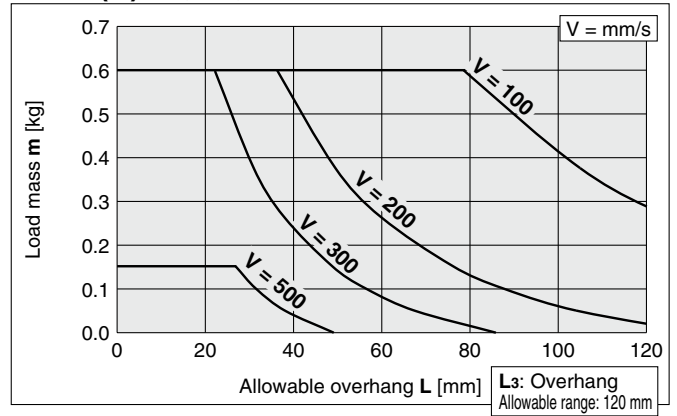
For Transfer/  
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

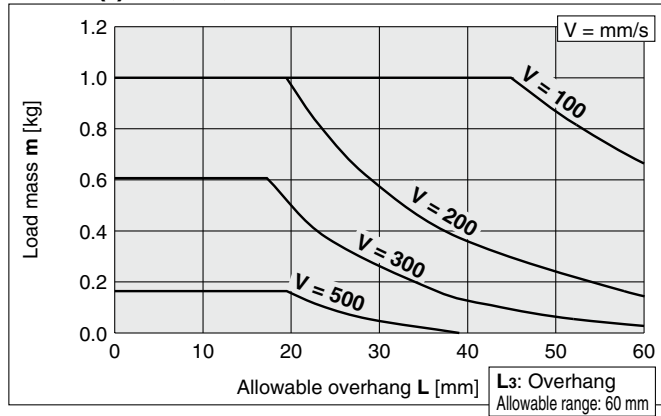
MXQ6(A)-10, 20Z□



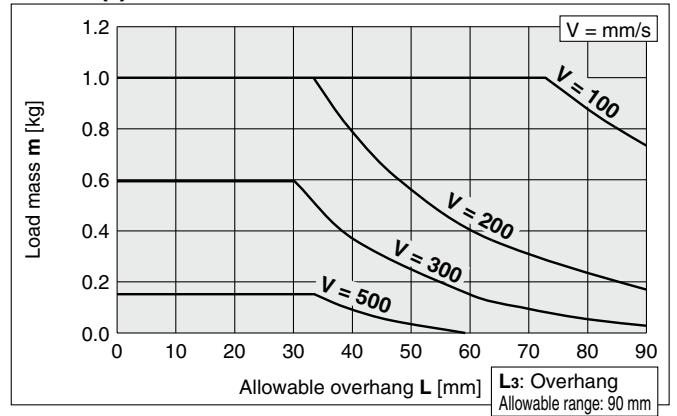
MXQ6(A)-30, 40, 50Z□



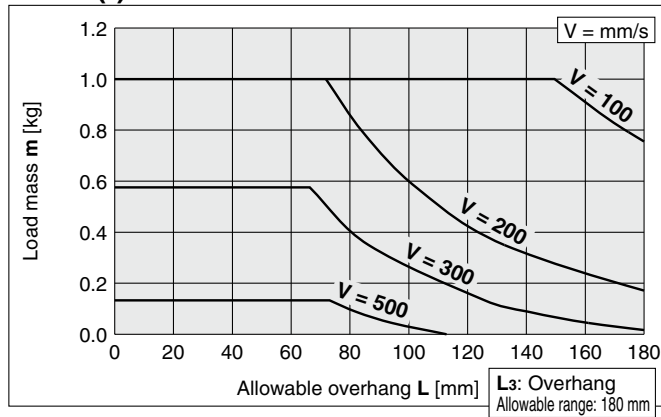
MXQ8(ε)-10, 20, 30Z□



MXQ8(ε)-40Z□



MXQ8(ε)-50Z□

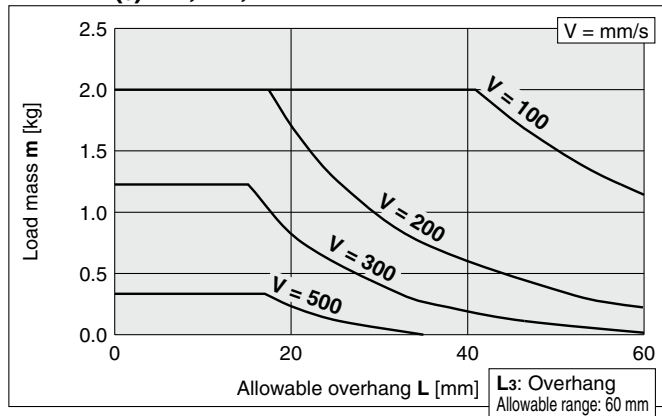


MXQ 12<sup>A</sup><sub>C</sub>-□Z□, MXQ 12-□Z□ (interchangeable type)  
 MXQ 16A-□Z□, MXQ 16-□Z□ (interchangeable type)

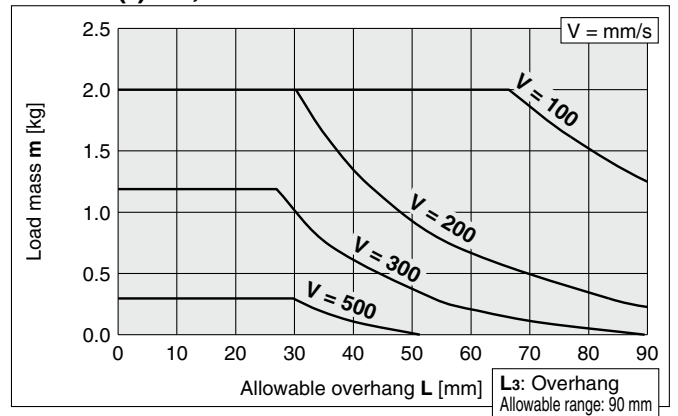
For Transfer/  
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

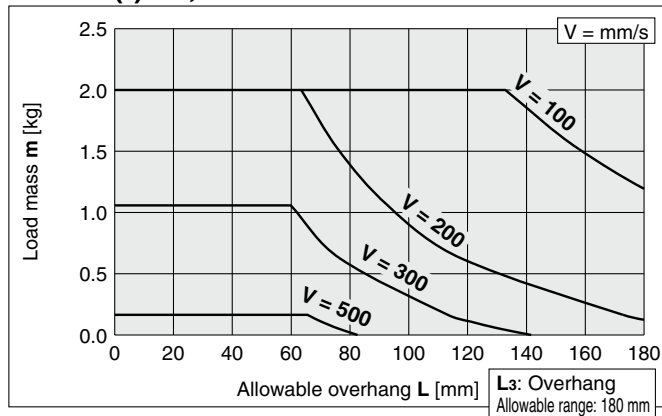
MXQ12(Δ)-10, 20, 30Z□



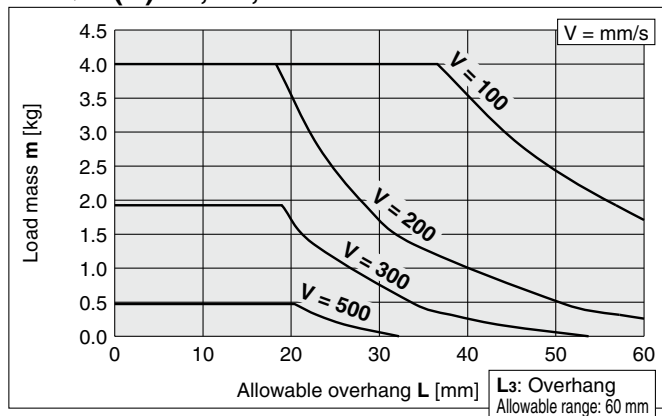
MXQ12(Δ)-40, 50Z□



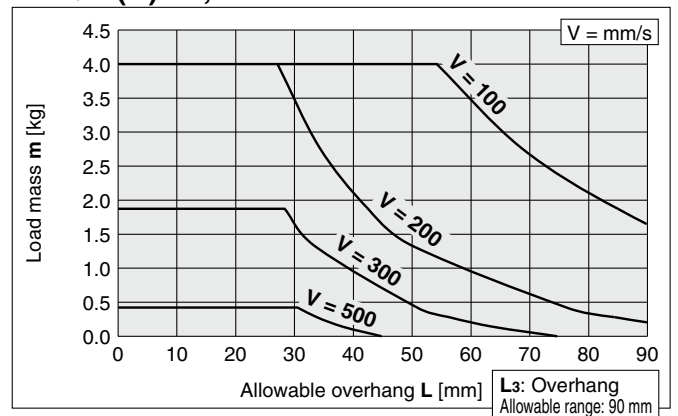
MXQ12(Δ)-75, 100Z□



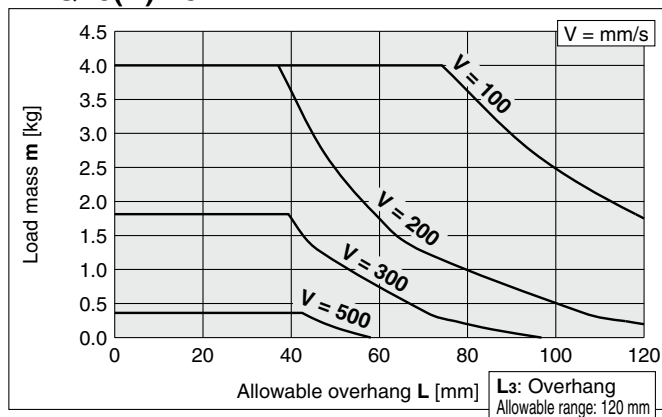
MXQ16(A)-10, 20, 30Z□



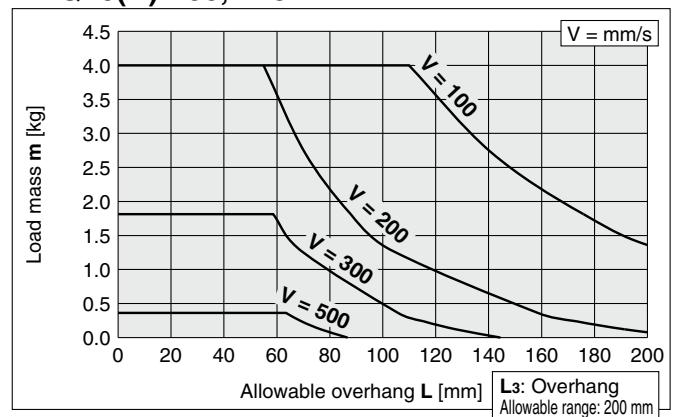
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection



# MXQ Series

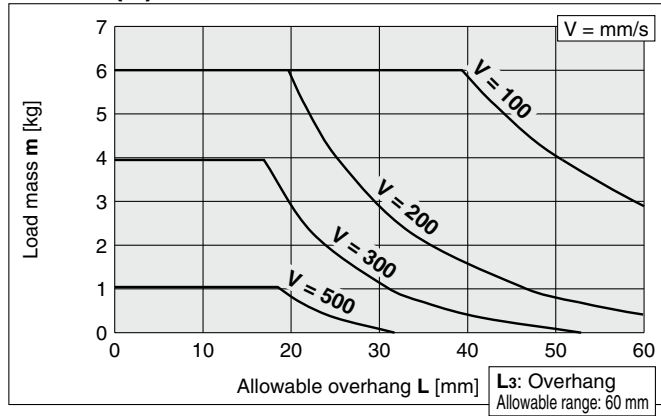
MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)

MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

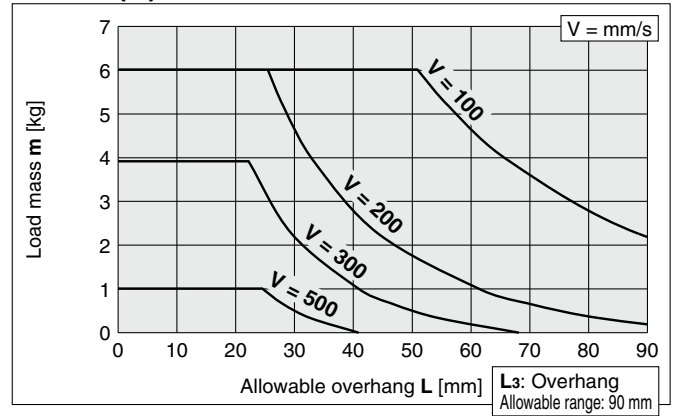
For Transfer/  
Rubber Stopper

Determine the overhang. (Refer to page 158 for details.)  
L1, L2: Check from the cross point of the load mass and driving speed.  
L3: Can be used within the "Allowable overhang range"  
in the selection graph if the load mass and driving  
speed values are within the allowable range

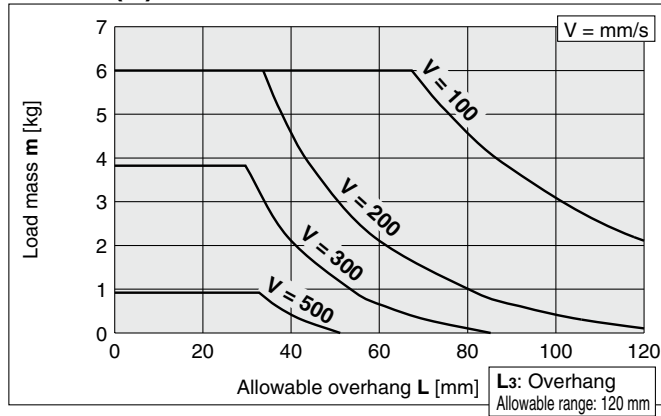
MXQ20(A)-10, 20, 30, 40Z□



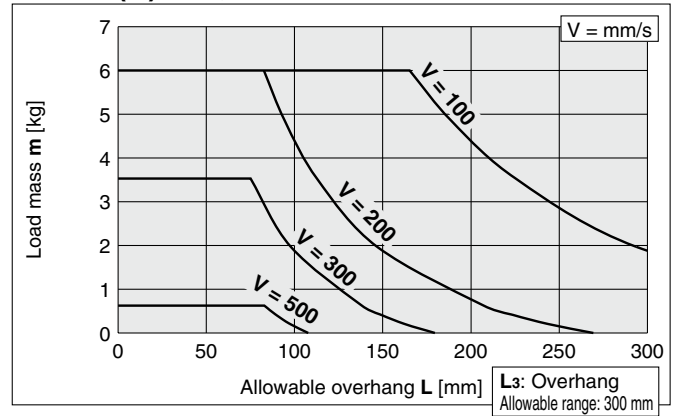
MXQ20(A)-50Z□



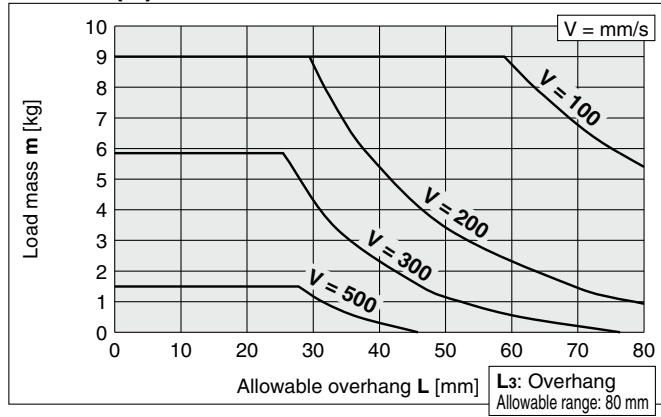
MXQ20(A)-75Z□



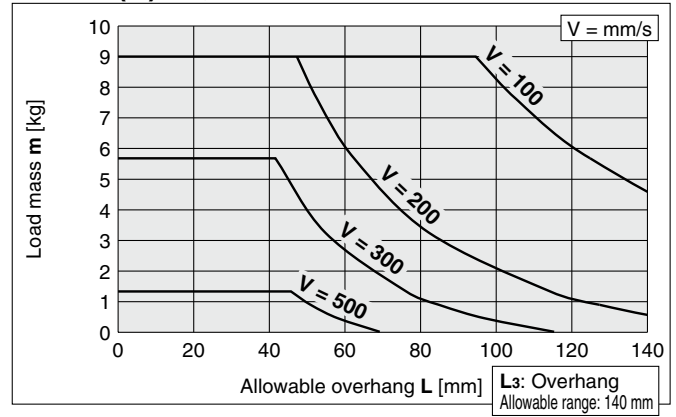
MXQ20(A)-100, 150Z□



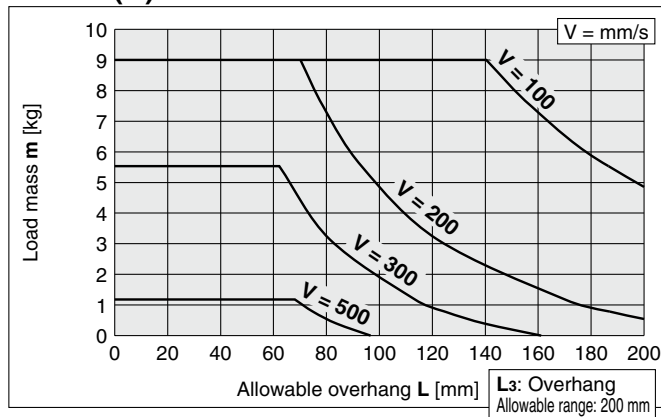
MXQ25(A)-10, 20, 30, 40Z□



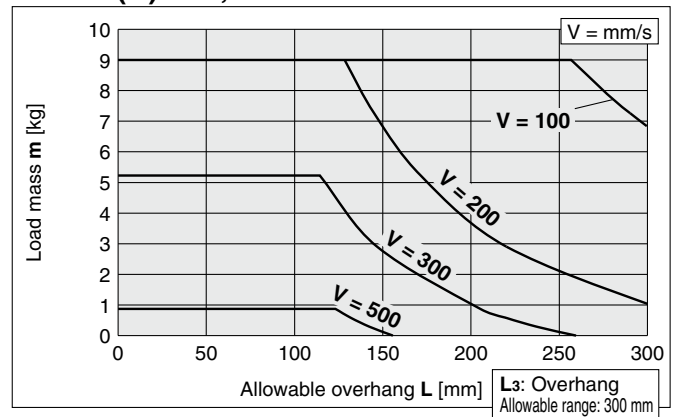
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



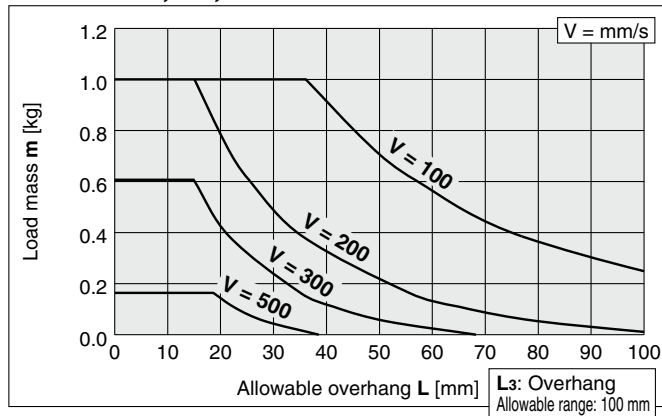
MXQ25(A)-125, 150Z□



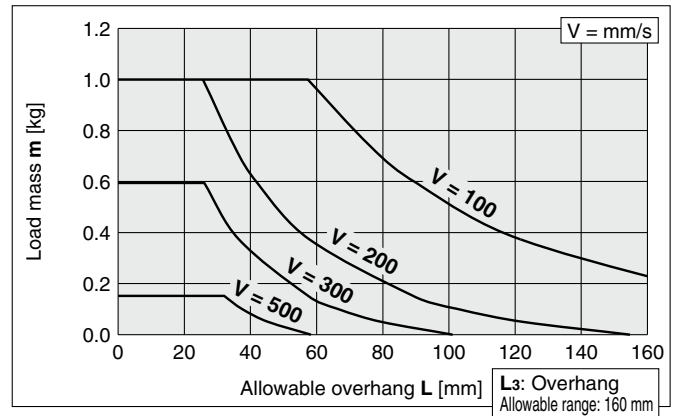
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

# MXQ 6B-□Z□/For Transfer/Rubber Stopper

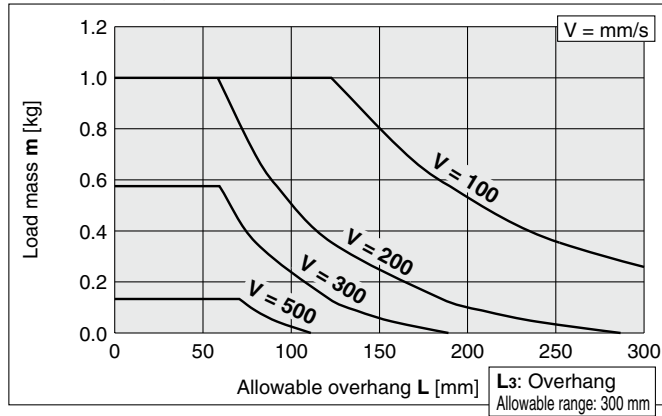
## MXQ6B-10, 20, 30Z□



## MXQ6B-40Z□



## MXQ6B-50, 75Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

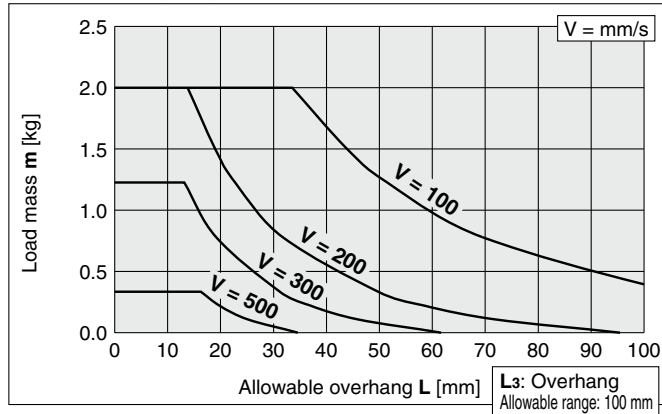
Model Selection

# MXQ Series

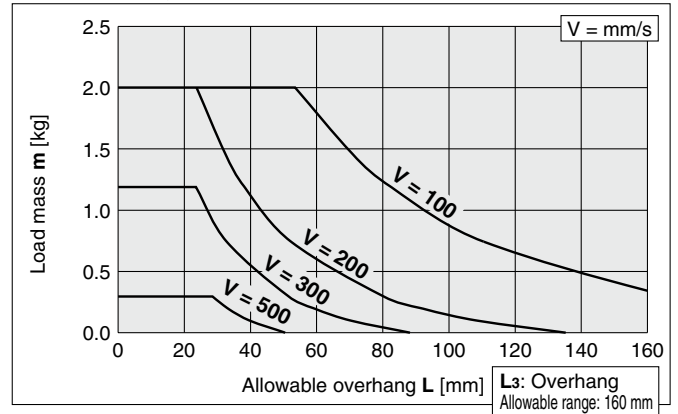
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 8B-□Z□, MXQ 12B-□Z□ / For Transfer/ Rubber Stopper

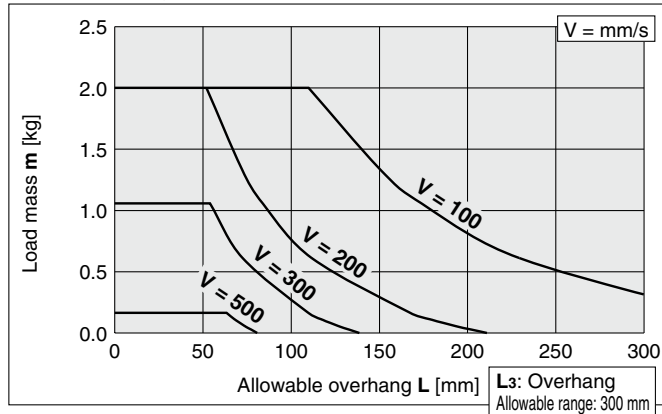
**MXQ8B-10, 20, 30Z□**



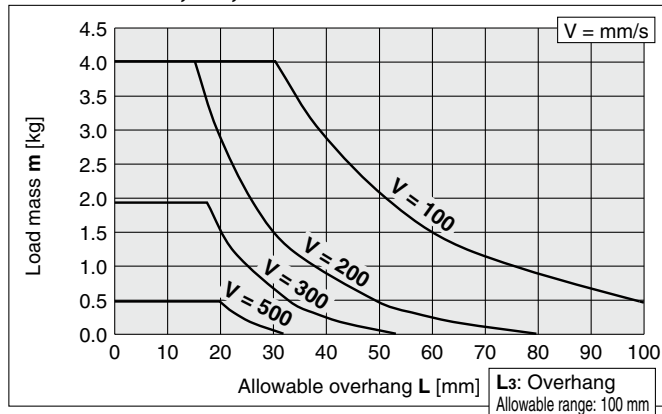
**MXQ8B-40, 50Z□**



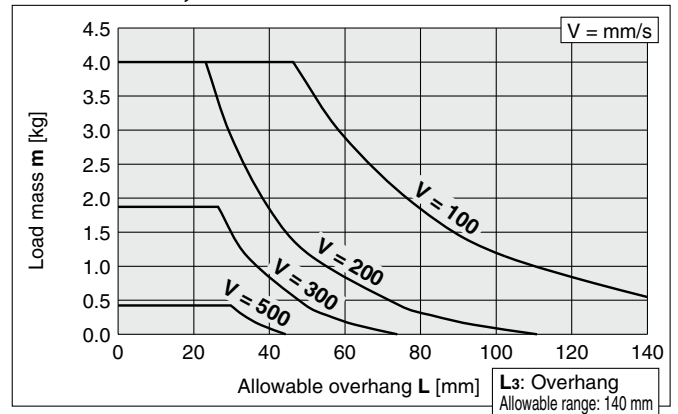
**MXQ8B-75, 100Z□**



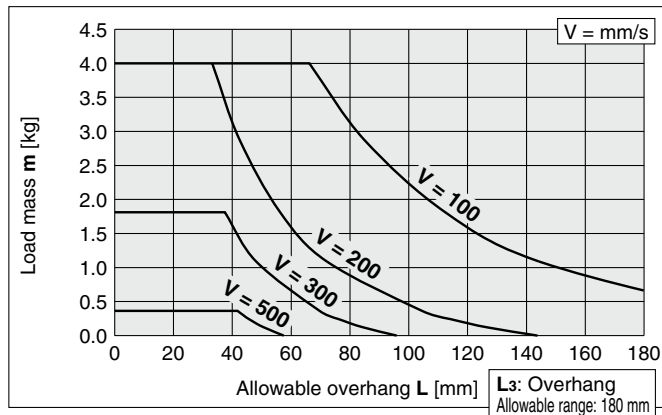
**MXQ12B-10, 20, 30Z□**



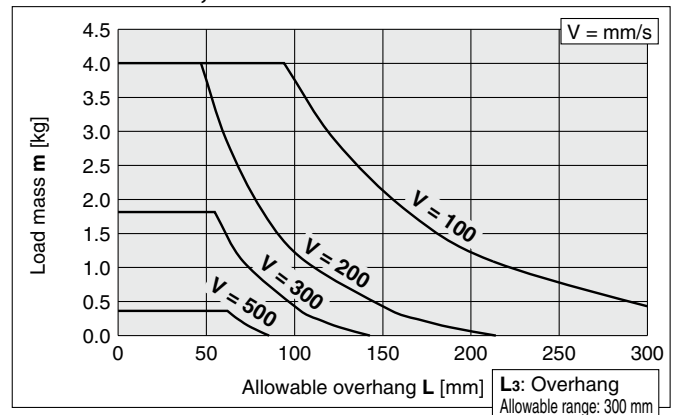
**MXQ12B-40, 50Z□**



**MXQ12B-75Z□**



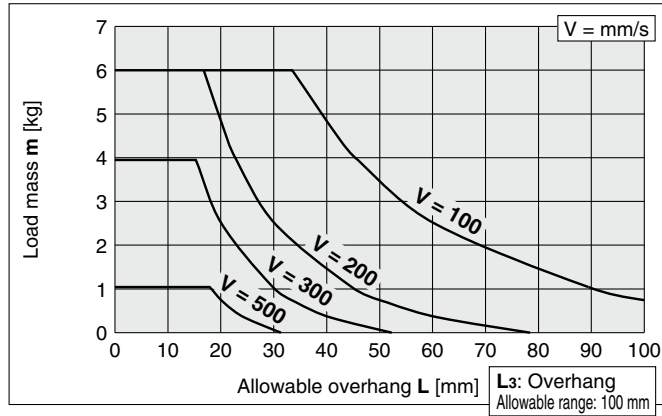
**MXQ12B-100, 125Z□**



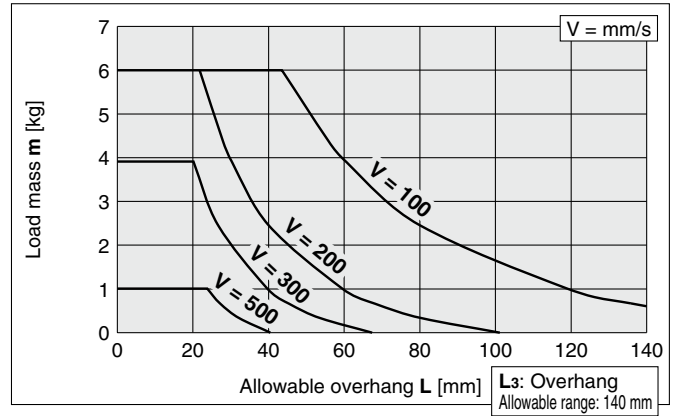
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

**MXQ 16B-□Z□, MXQ 20B-□Z□** / For Transfer/ Rubber Stopper

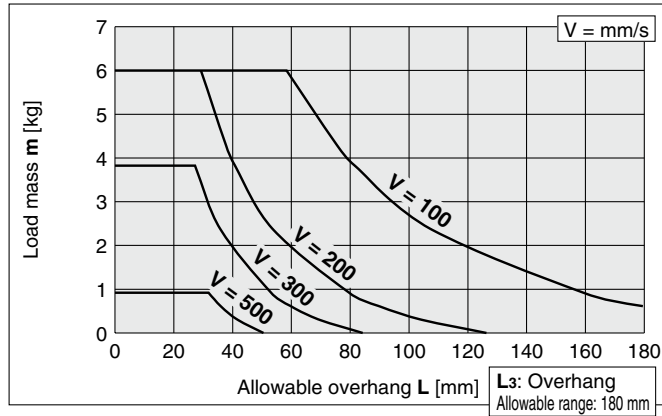
**MXQ16B-10, 20, 30, 40Z□**



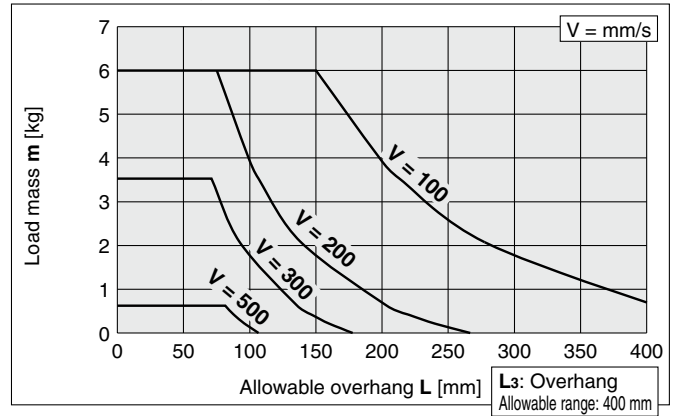
**MXQ16B-50Z□**



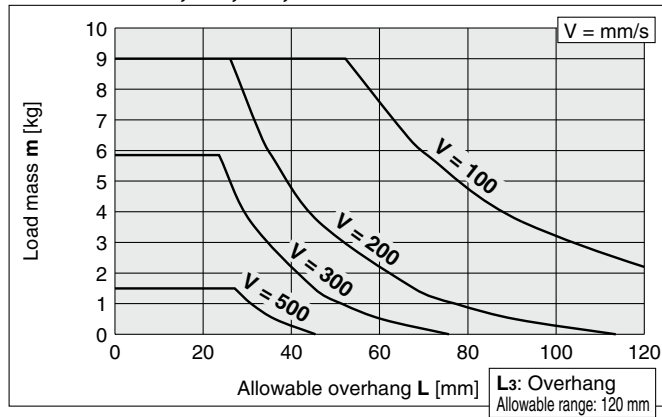
**MXQ16B-75Z□**



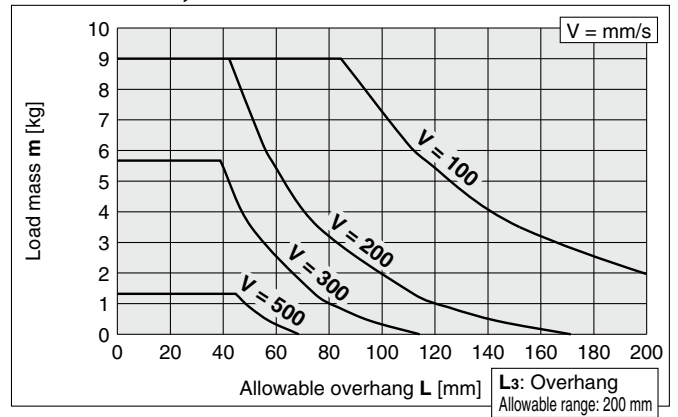
**MXQ16B-100, 125, 150Z□**



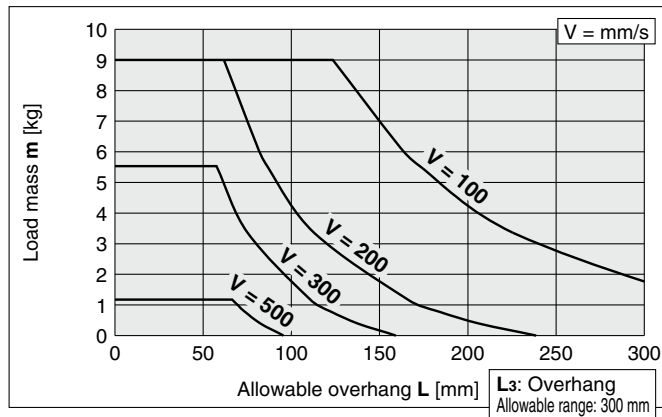
**MXQ20B-10, 20, 30, 40Z□**



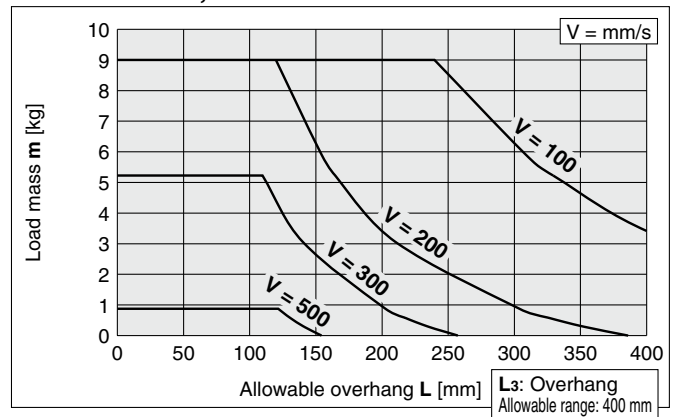
**MXQ20B-50, 75Z□**



**MXQ20B-100Z□**



**MXQ20B-125, 150Z□**



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

# MXQ Series

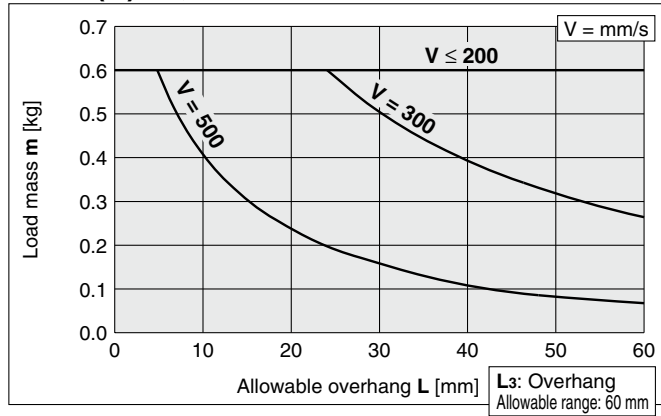
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8<sup>A</sup>C-□Z□, MXQ 8-□Z□ (Height interchangeable type)

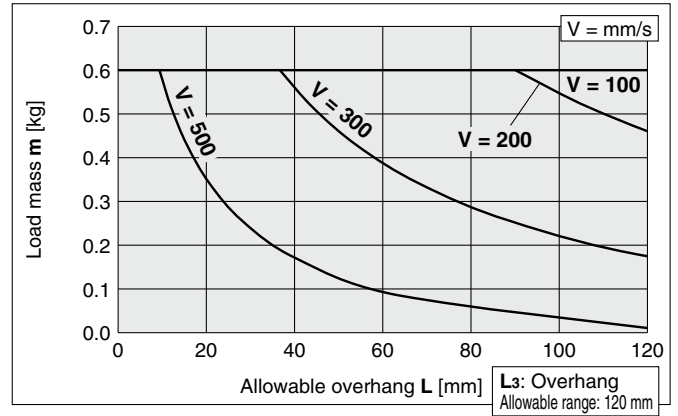
For Transfer/  
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

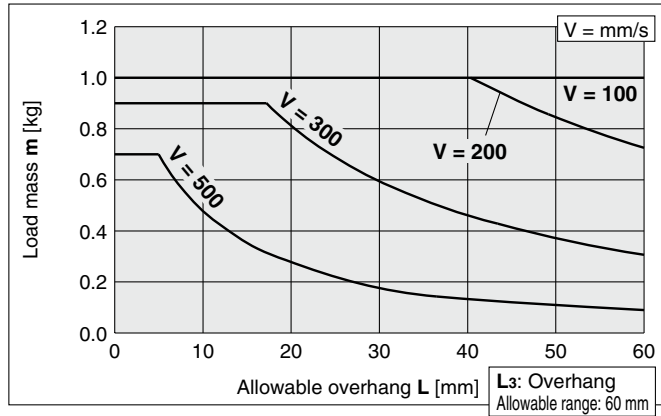
MXQ6(A)-10, 20Z□



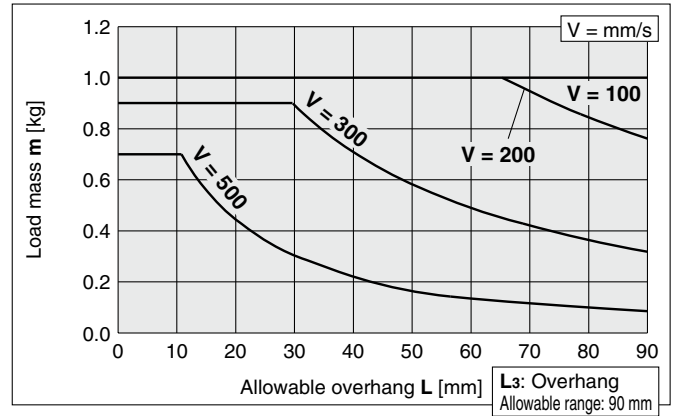
MXQ6(A)-30, 40, 50Z□



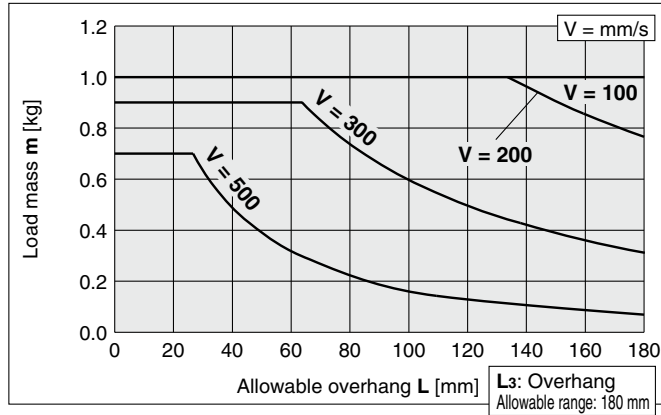
MXQ8(Δ)-10, 20, 30Z□



MXQ8(Δ)-40Z□



MXQ8(Δ)-50, 75Z□

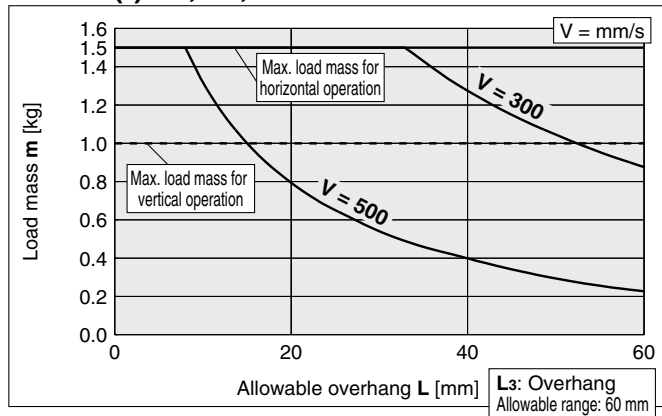


MXQ 12<sup>A</sup>-□Z□, MXQ 12-□Z□ (interchangeable type) Height  
 MXQ 16A-□Z□, MXQ 16-□Z□ (interchangeable type) Height

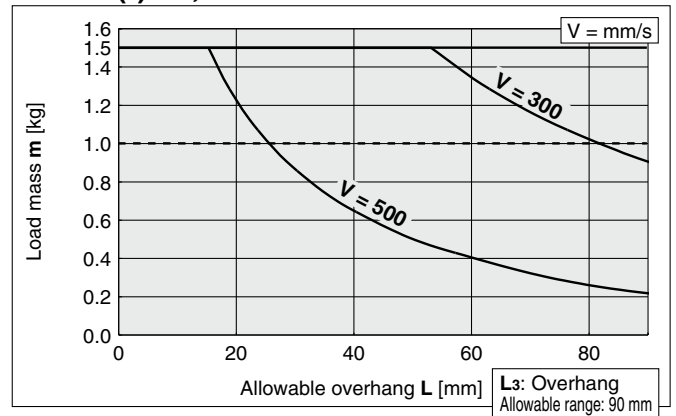
For Transfer/  
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range"  
 in the selection graph if the load mass and driving  
 speed values are within the allowable range

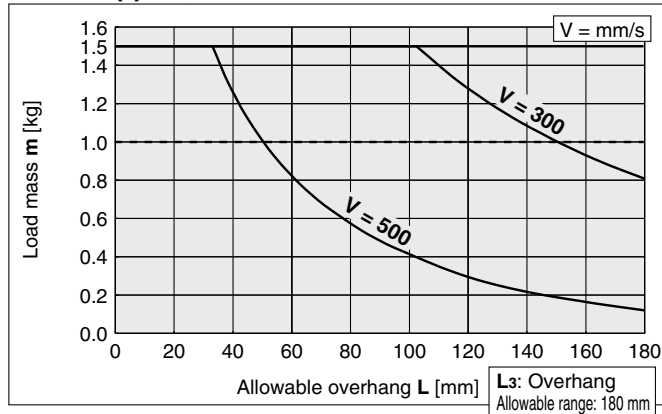
**MXQ12(Δ)-10, 20, 30Z□**



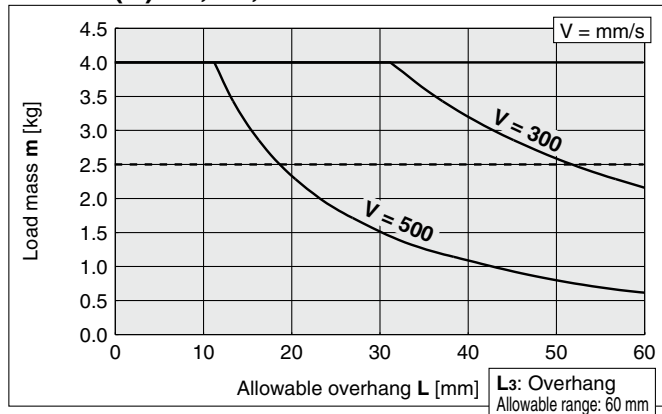
**MXQ12(Δ)-40, 50Z□**



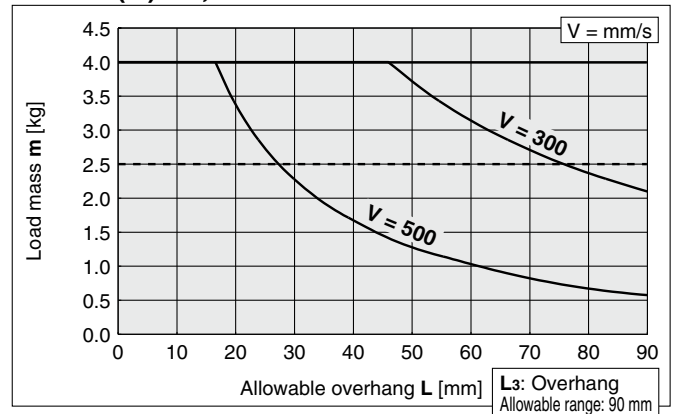
**MXQ12(Δ)-75, 100Z□**



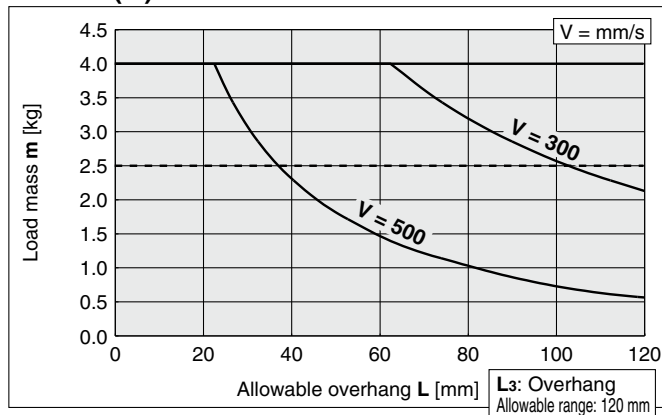
**MXQ16(A)-10, 20, 30Z□**



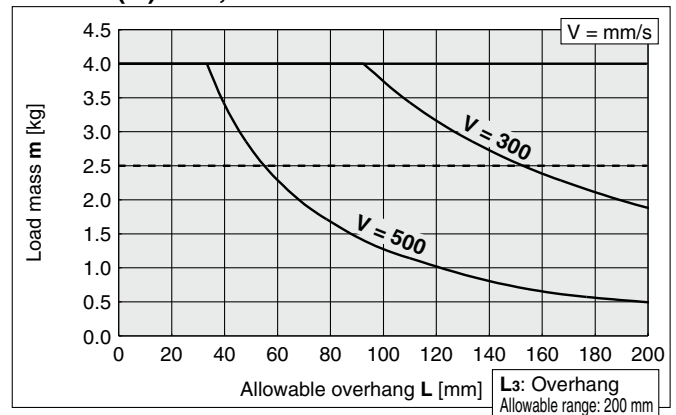
**MXQ16(A)-40, 50Z□**



**MXQ16(A)-75Z□**



**MXQ16(A)-100, 125Z□**



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection

# MXQ Series

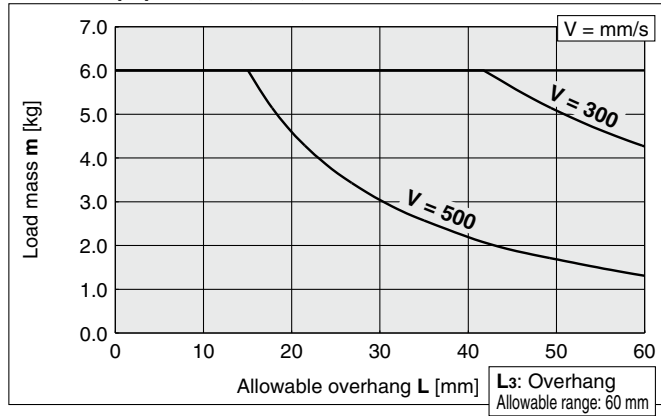
MXQ 20A-□Z□, MXQ 20-□Z□ (Height interchangeable type)

MXQ 25A-□Z□, MXQ 25-□Z□ (Height interchangeable type)

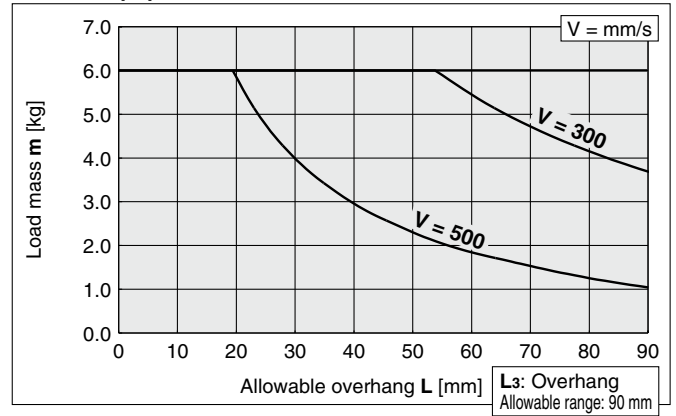
For Transfer/  
Shock Absorber/RJ

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

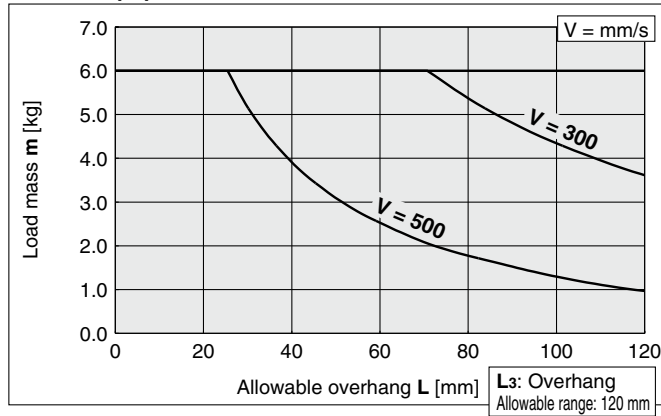
MXQ20(A)-10, 20, 30, 40Z□



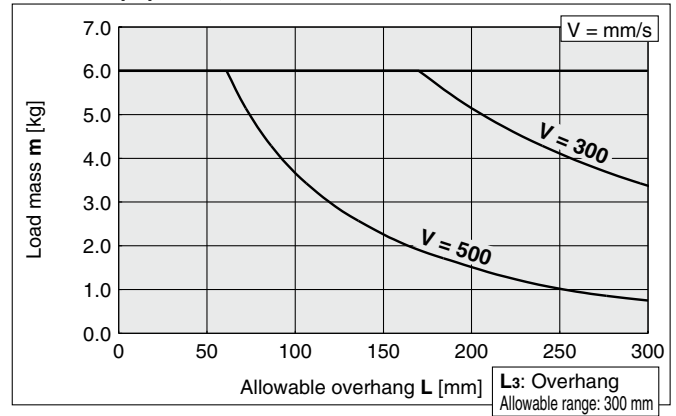
MXQ20(A)-50Z□



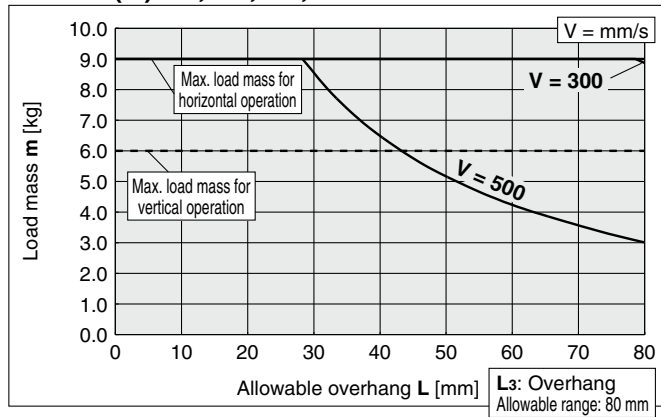
MXQ20(A)-75Z□



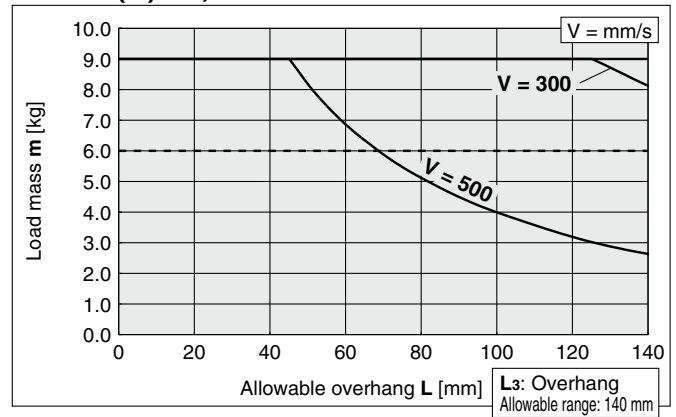
MXQ20(A)-100, 150Z□



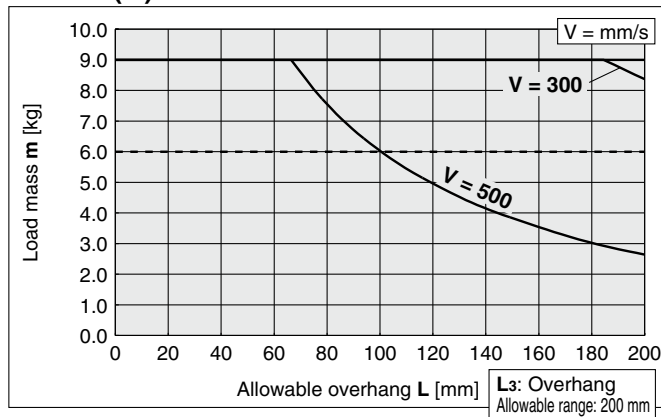
MXQ25(A)-10, 20, 30, 40Z□



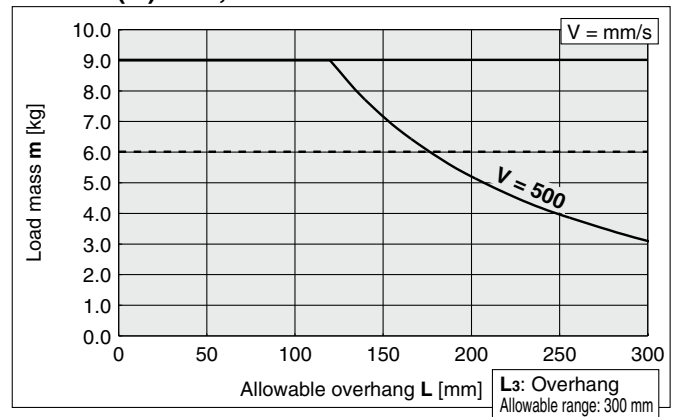
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



MXQ25(A)-125, 150Z□

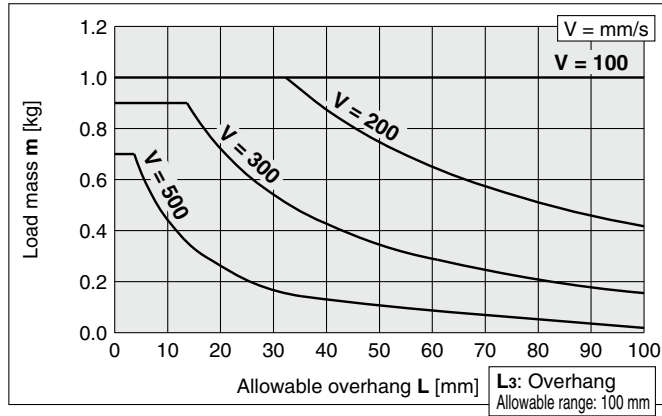




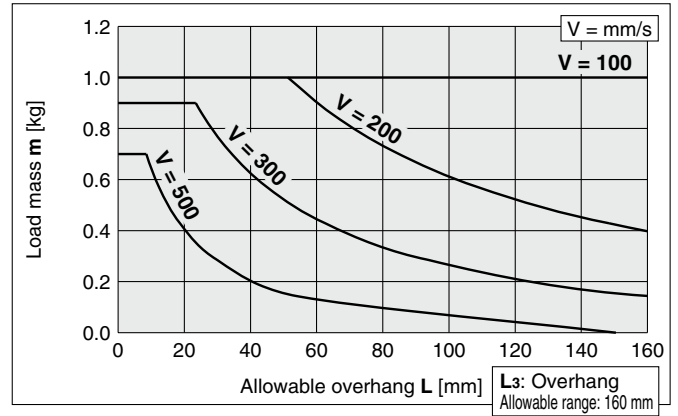
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

# MXQ 6B-□Z□/For Transfer/Shock Absorber/RJ

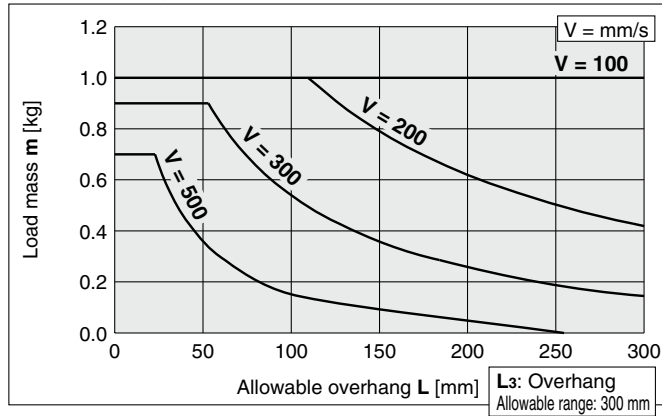
## MXQ6B-10, 20, 30Z□



## MXQ6B-40Z□



## MXQ6B-50, 75Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

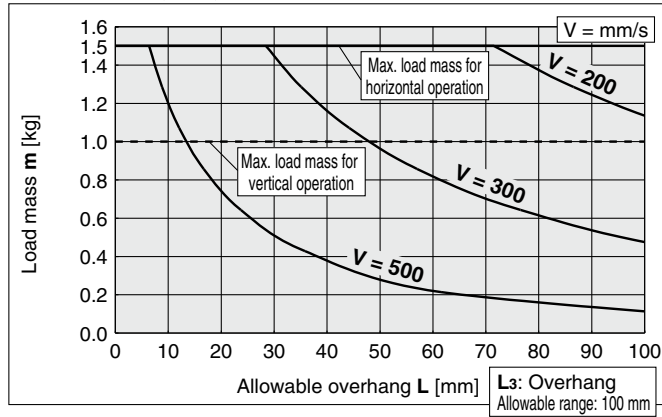
Model Selection

# MXQ Series

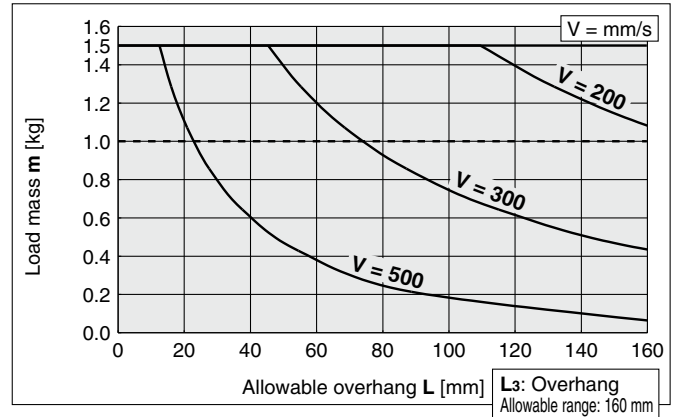
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 8B-□Z□, MXQ 12B-□Z□ / For Transfer/ Shock Absorber/RJ

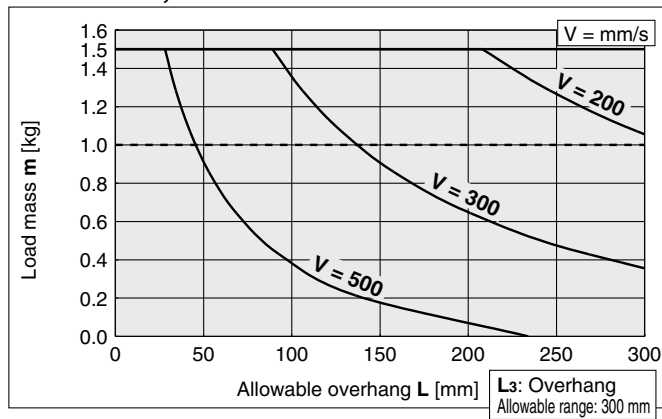
**MXQ8B-10, 20, 30Z□**



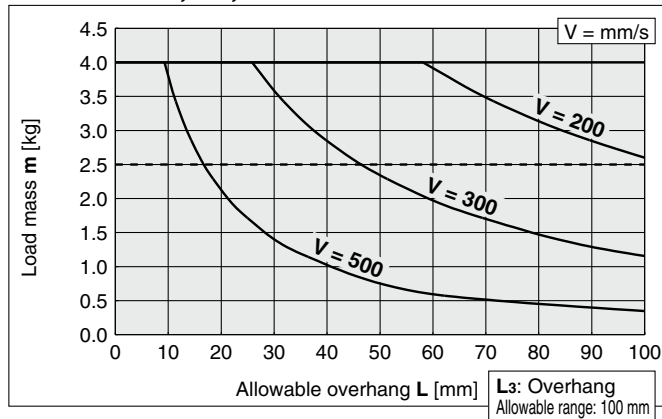
**MXQ8B-40, 50Z□**



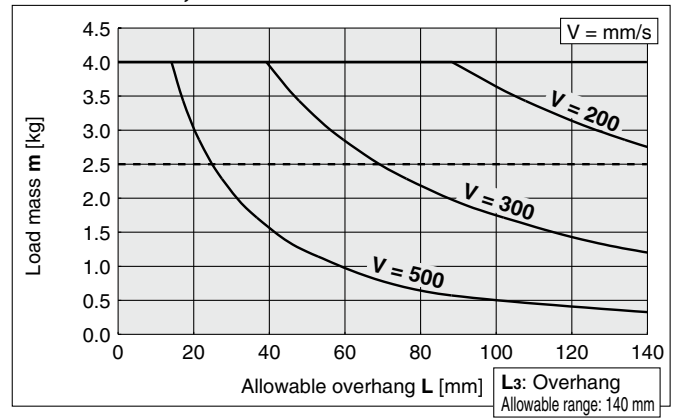
**MXQ8B-75, 100Z□**



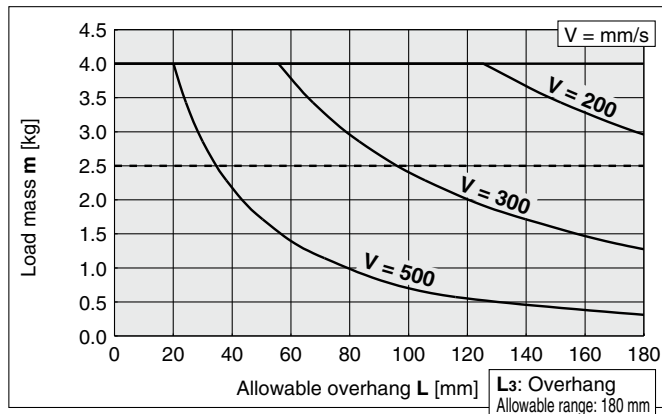
**MXQ12B-10, 20, 30Z□**



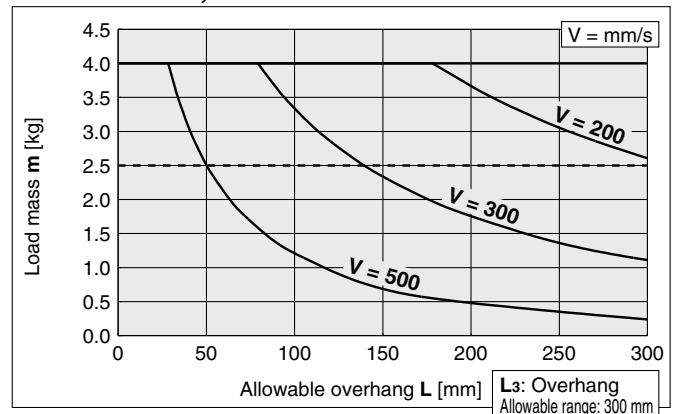
**MXQ12B-40, 50Z□**



**MXQ12B-75Z□**



**MXQ12B-100, 125Z□**

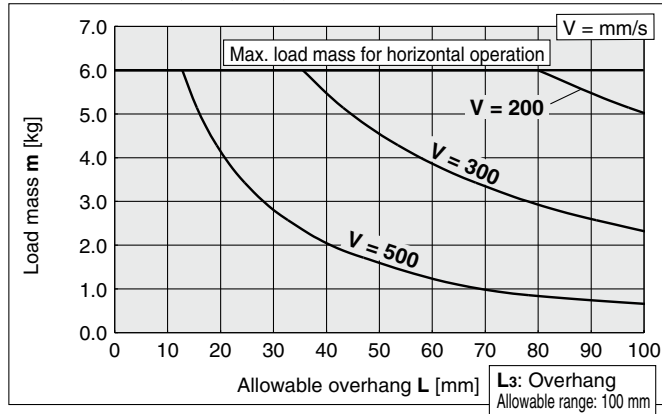


Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

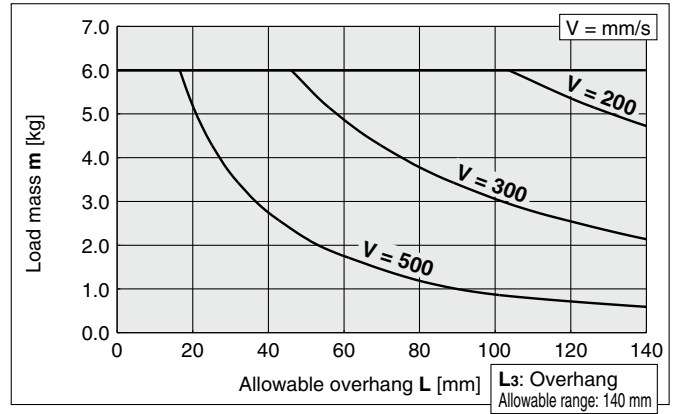
## MXQ 16B-□Z□, MXQ 20B-□Z□

For Transfer/  
Shock Absorber/RJ

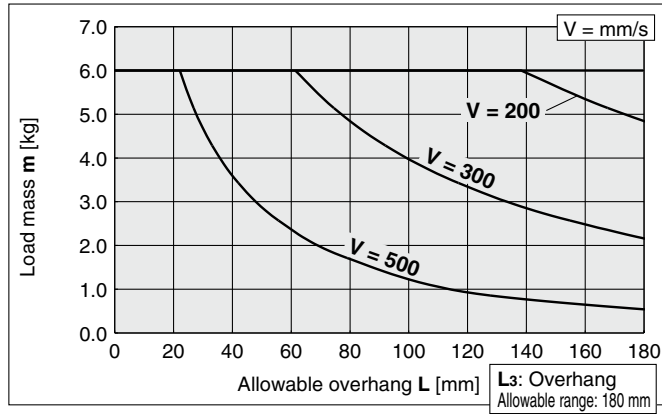
### MXQ16B-10, 20, 30, 40Z□



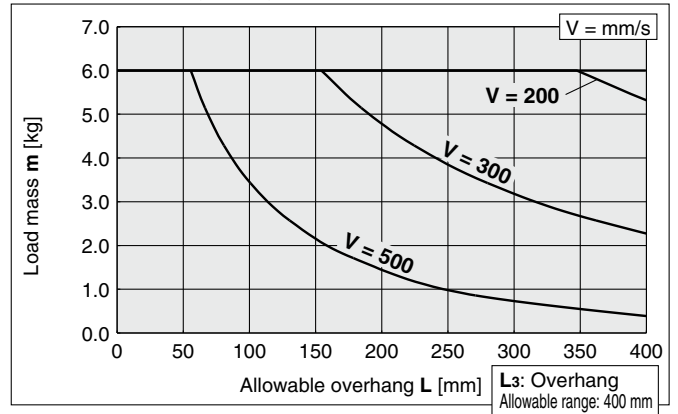
### MXQ16B-50Z□



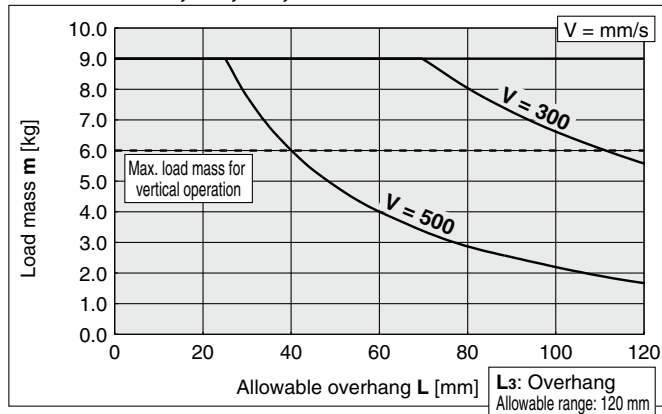
### MXQ16B-75Z□



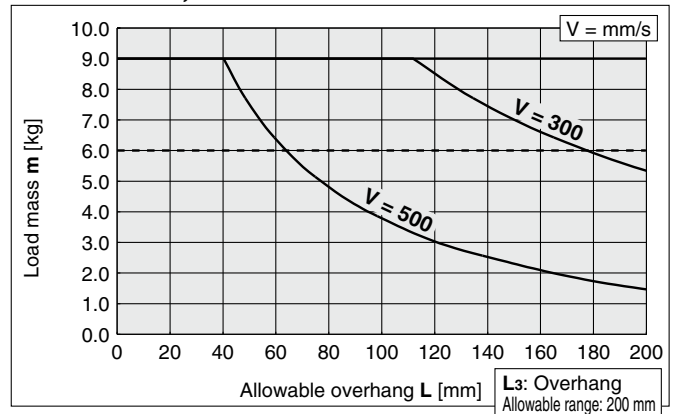
### MXQ16B-100, 125, 150Z□



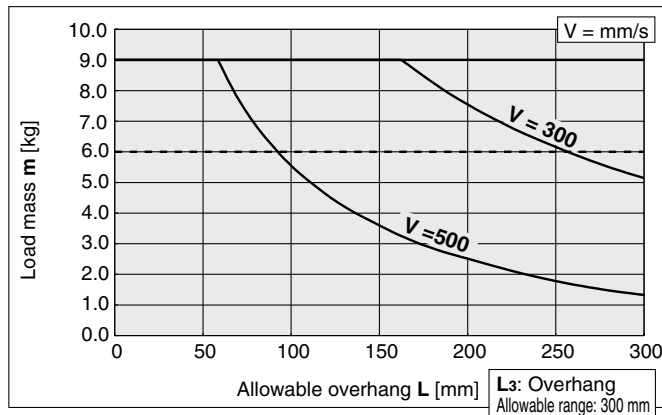
### MXQ20B-10, 20, 30, 40Z□



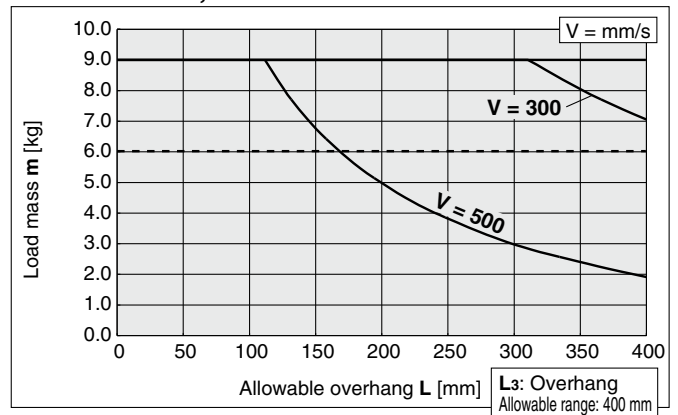
### MXQ20B-50, 75Z□



### MXQ20B-100Z□



### MXQ20B-125, 150Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection

# MXQ Series

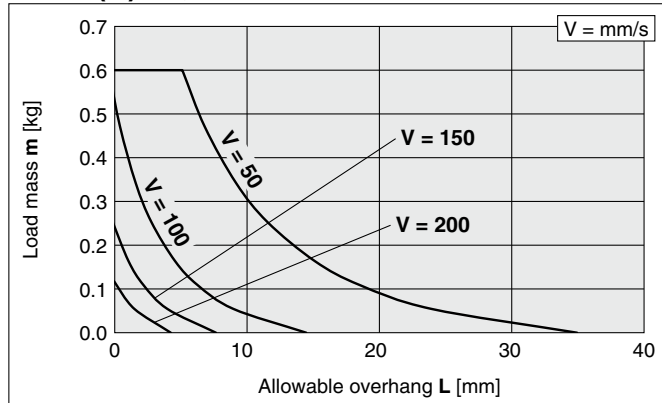
MXQ 6A-□Z□, MXQ 6-□Z□ (Height interchangeable type)

MXQ 8<sup>A</sup>C-□Z□, MXQ 8-□Z□ (Height interchangeable type)

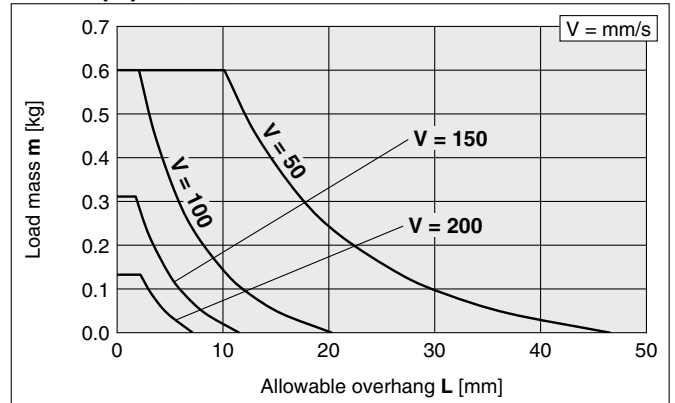
For Transfer/  
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

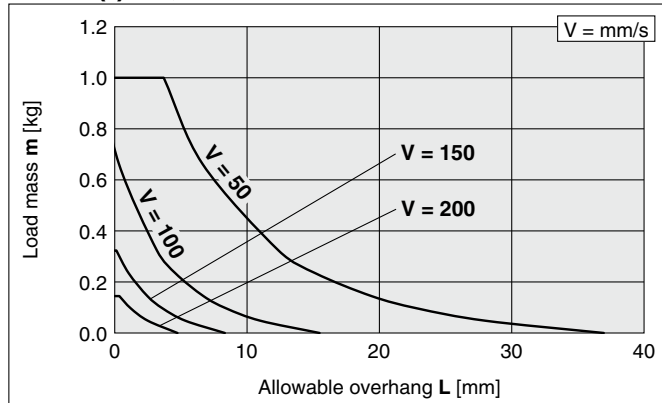
MXQ6(A)-10, 20Z□



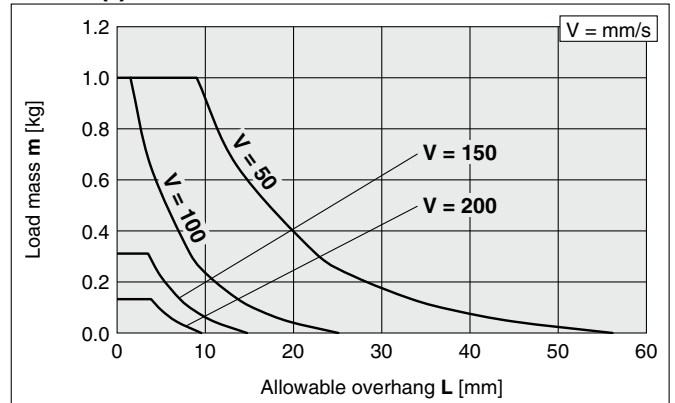
MXQ6(A)-30, 40, 50Z□



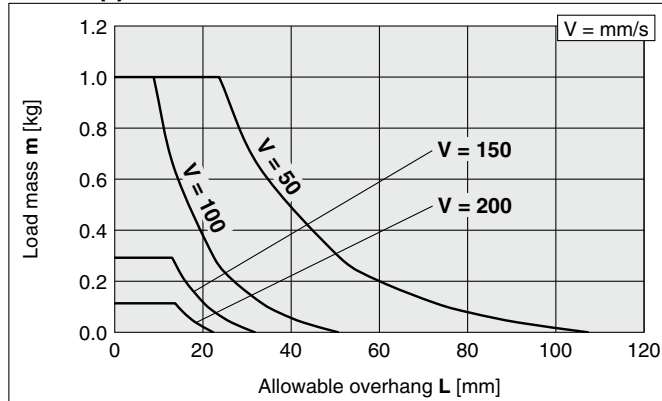
MXQ8(ε)-10, 20Z□



MXQ8(ε)-40Z□



MXQ8(ε)-50Z□



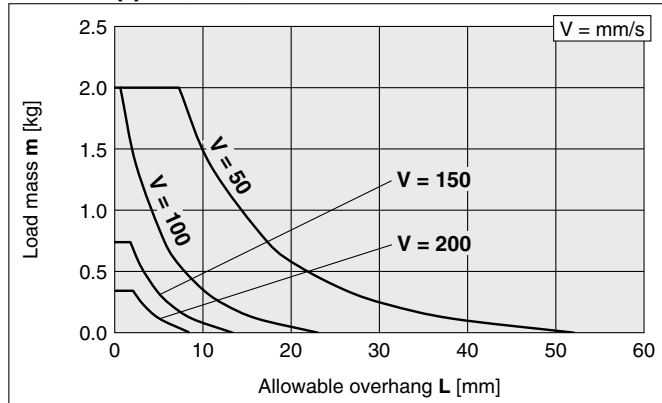
MXQ 12<sup>A</sup>-□Z□, MXQ 12-□Z□ (interchangeable type) Height

MXQ 16A-□Z□, MXQ 16-□Z□ (interchangeable type) Height

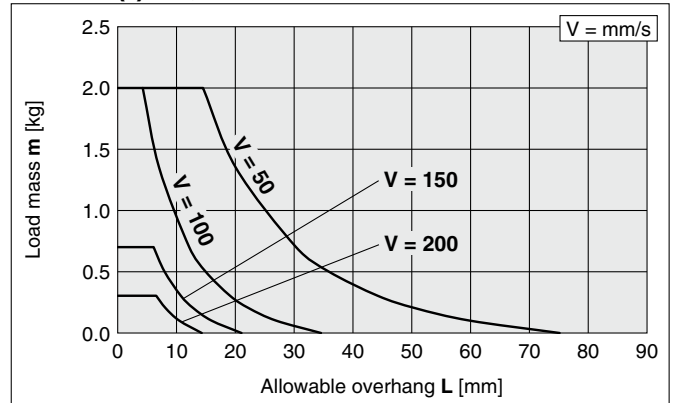
For Transfer/  
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

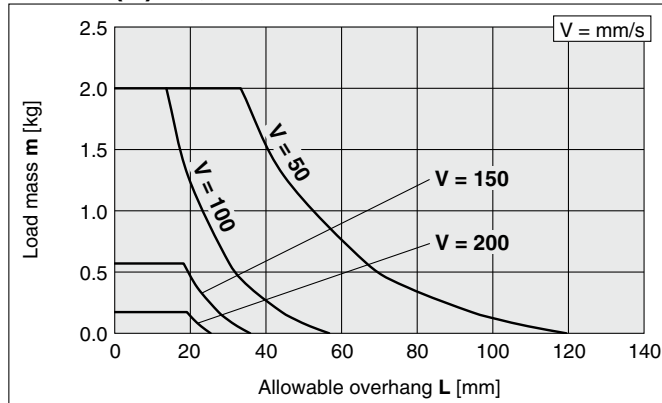
MXQ12(Δ)-10, 20, 30Z□



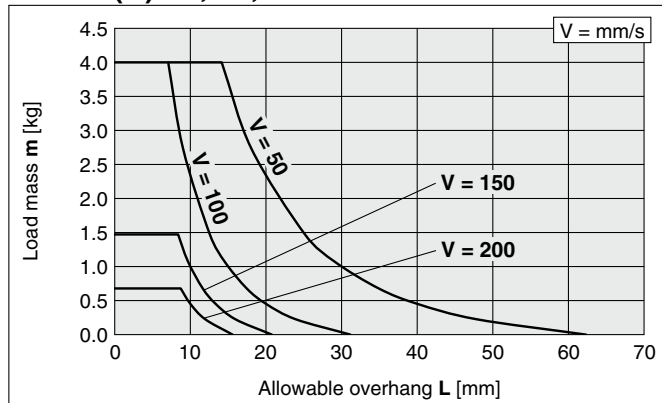
MXQ12(Δ)-40, 50Z□



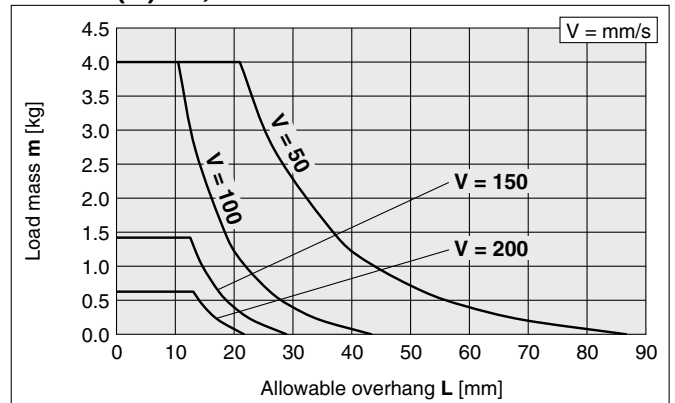
MXQ12(A)-75, 100Z□



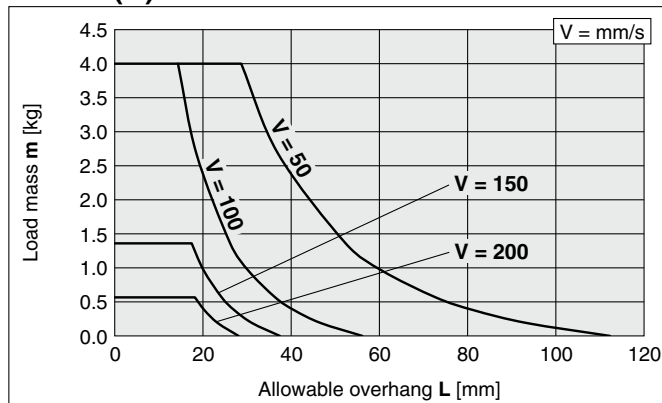
MXQ16(A)-10, 20, 30Z□



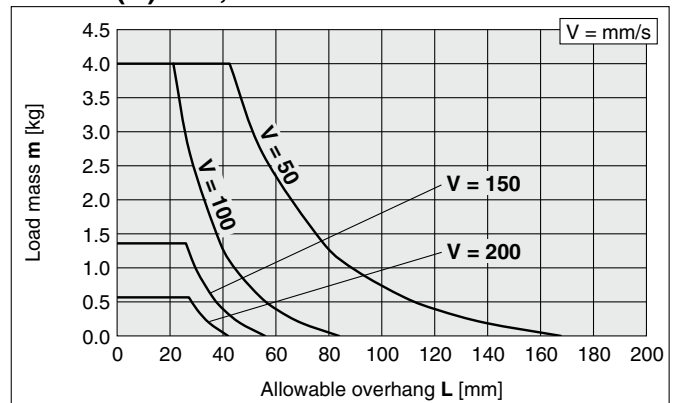
MXQ16(A)-40, 50Z□



MXQ16(A)-75Z□



MXQ16(A)-100, 125Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection

# MXQ Series

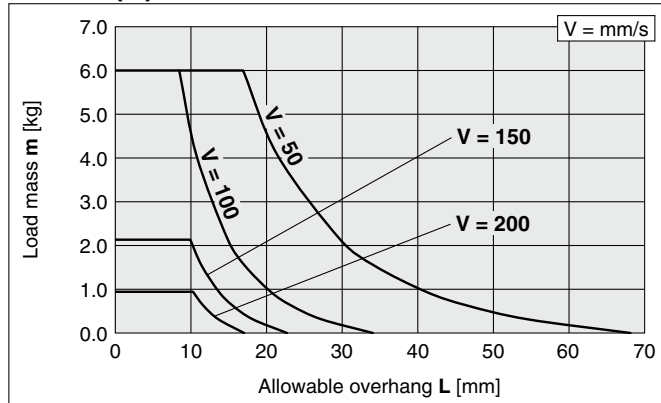
MXQ 20A-□Z□, MXQ 20-□Z□ (interchangeable type) Height

MXQ 25A-□Z□, MXQ 25-□Z□ (interchangeable type) Height

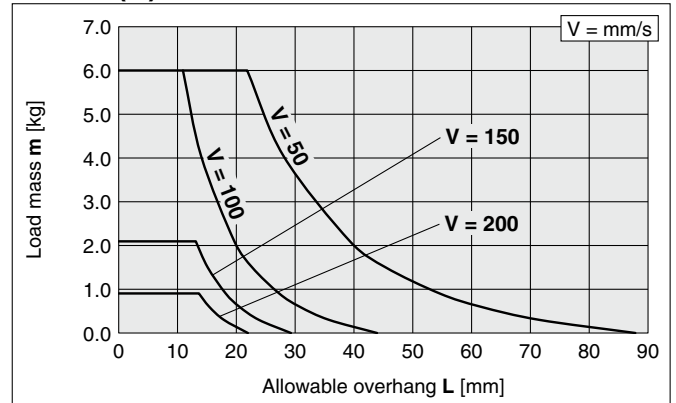
For Transfer/  
Metal Stopper

Determine the overhang. (Refer to page 158 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

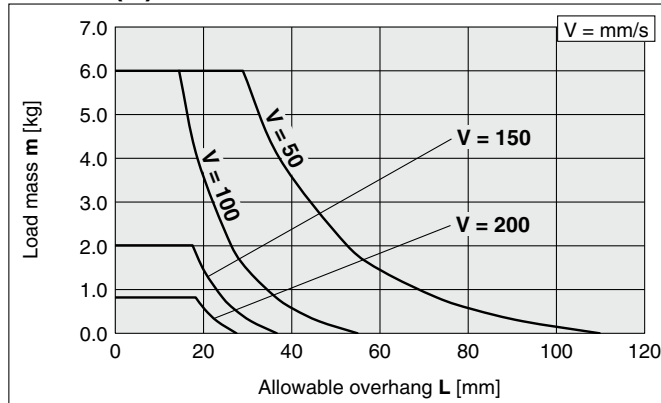
MXQ20(A)-10, 20, 30, 40Z□



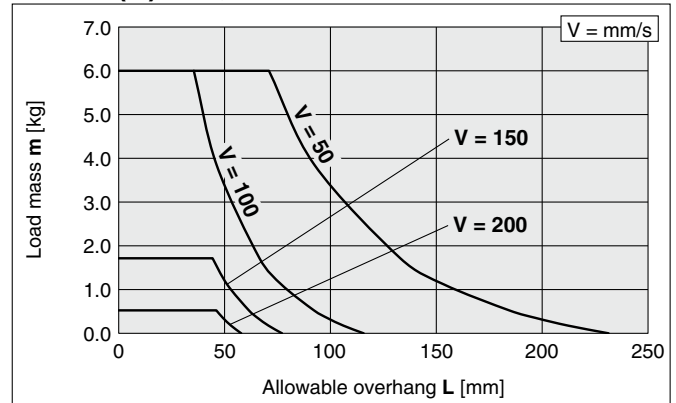
MXQ20(A)-50Z□



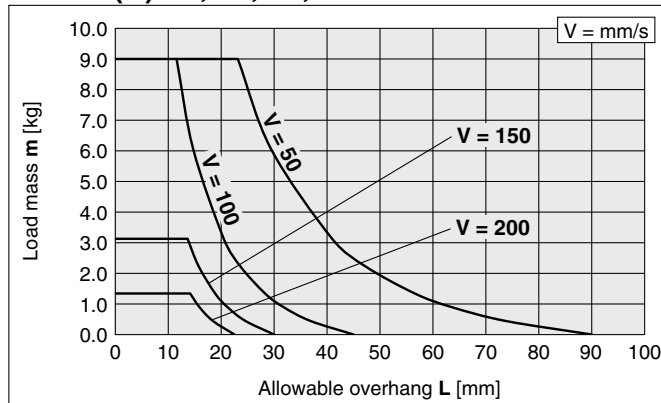
MXQ20(A)-75Z□



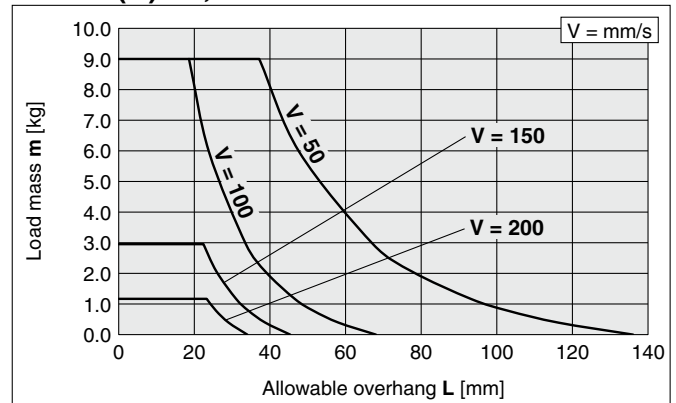
MXQ20(A)-100, 150Z□



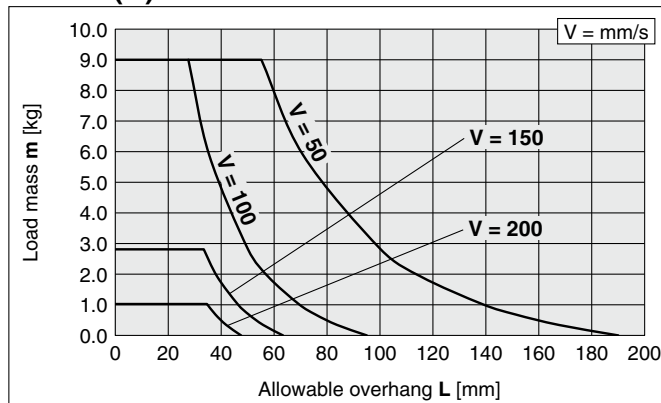
MXQ25(A)-10, 20, 30, 40Z□



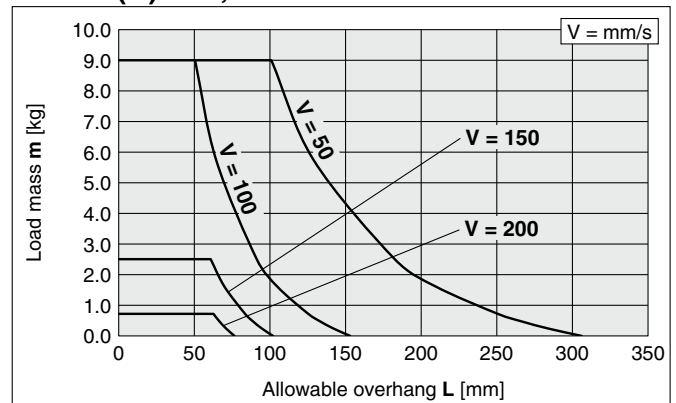
MXQ25(A)-50, 75Z□



MXQ25(A)-100Z□



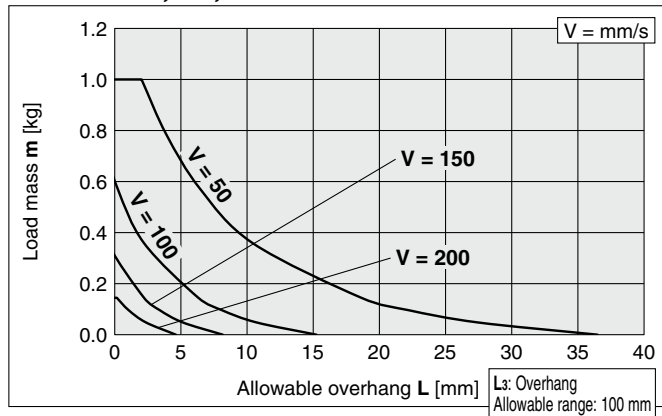
MXQ25(A)-125, 150Z□



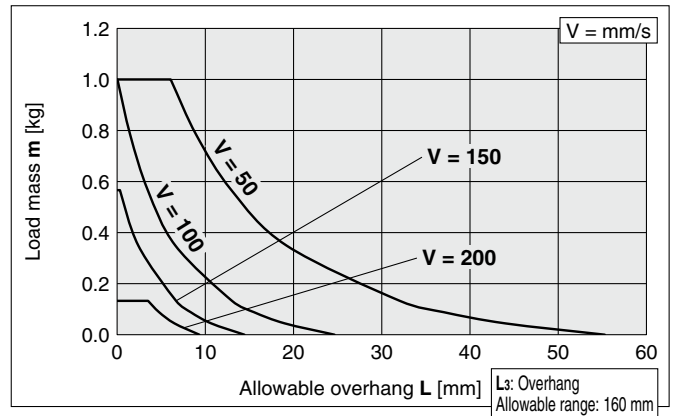
Determine the overhang. (Refer to page 158 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the load mass and driving speed.  
 L<sub>3</sub>: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

# MXQ 6B-□Z□/For Transfer/Metal Stopper

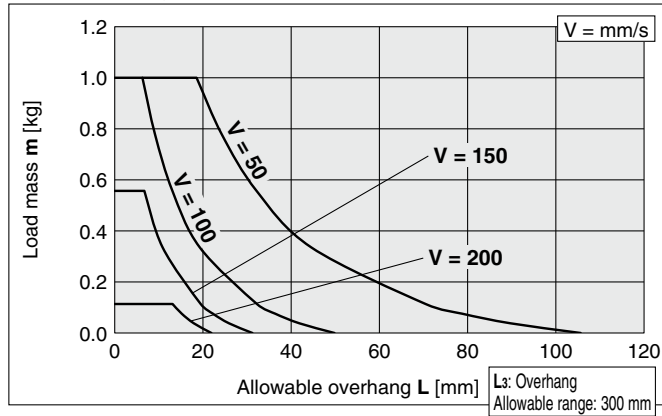
## MXQ6B-10, 20, 30Z□



## MXQ6B-40Z□



## MXQ6B-50, 75Z□



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

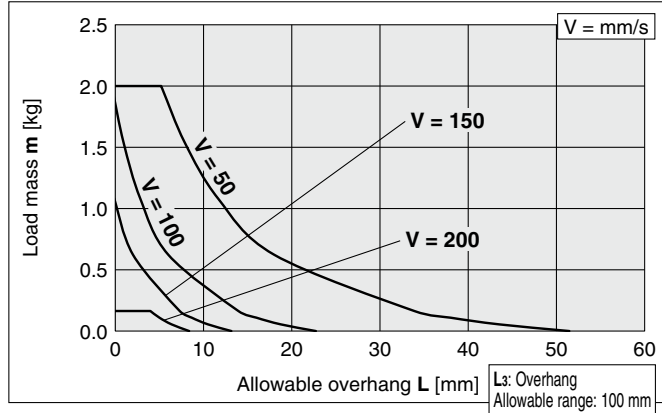


# MXQ Series

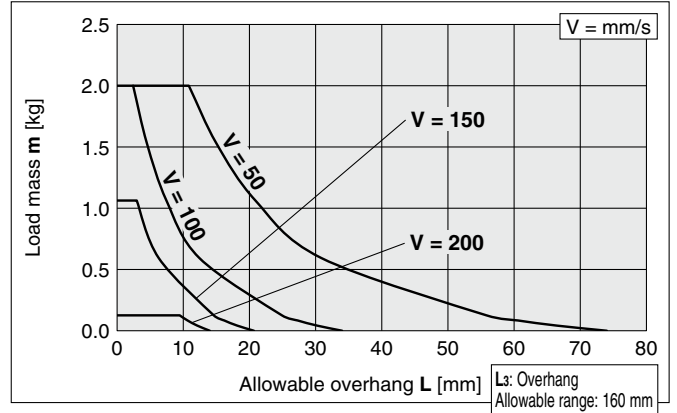
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

## MXQ 8B-□Z□, MXQ 12B-□Z□ / For Transfer/ Metal Stopper

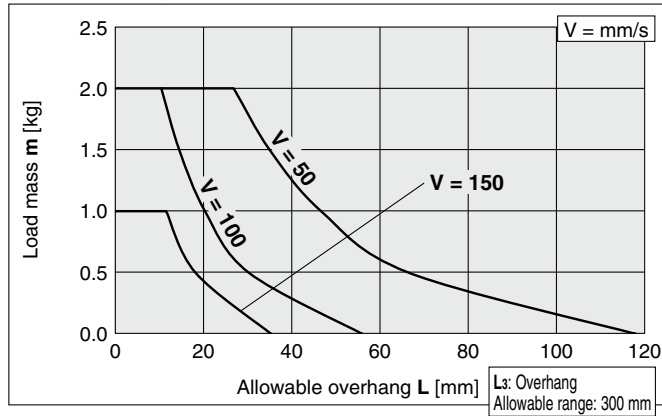
**MXQ8B-10, 20, 30Z□**



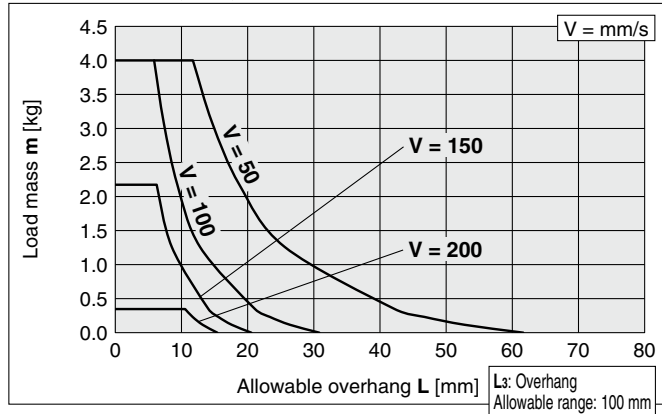
**MXQ8B-40, 50Z□**



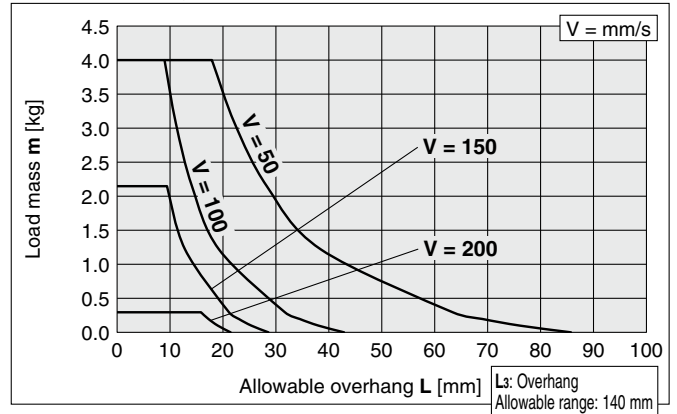
**MXQ8B-75, 100Z□**



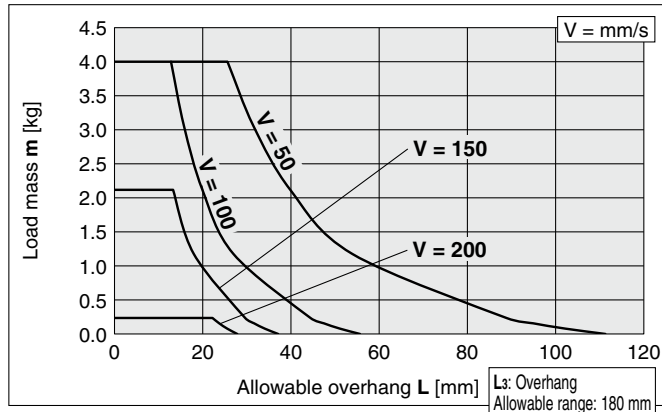
**MXQ12B-10, 20, 30Z□**



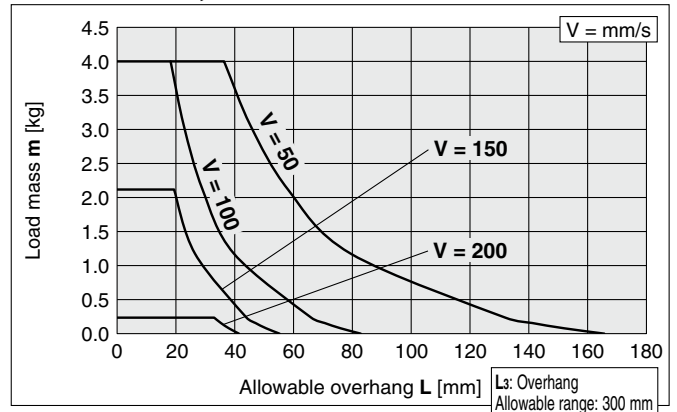
**MXQ12B-40, 50Z□**



**MXQ12B-75Z□**



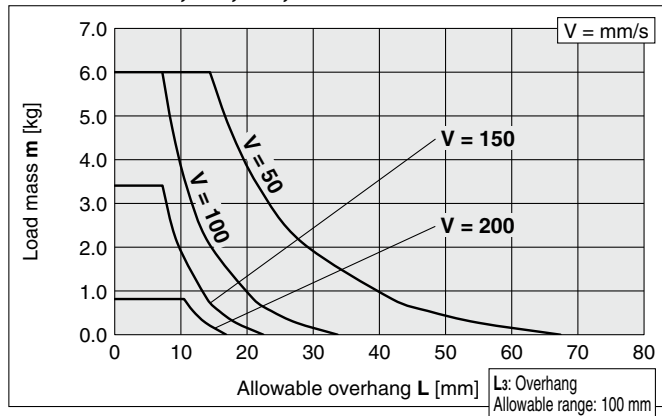
**MXQ12B-100, 125Z□**



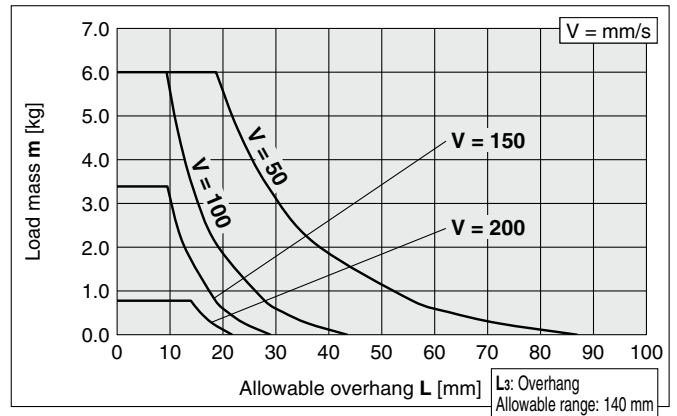
Determine the overhang. (Refer to page 158 for details.)  
 L1, L2: Check from the cross point of the load mass and driving speed.  
 L3: Can be used within the "Allowable overhang range" in the selection graph if the load mass and driving speed values are within the allowable range

**MXQ 16B-□Z□, MXQ 20B-□Z□** / For Transfer/  
 Metal Stopper

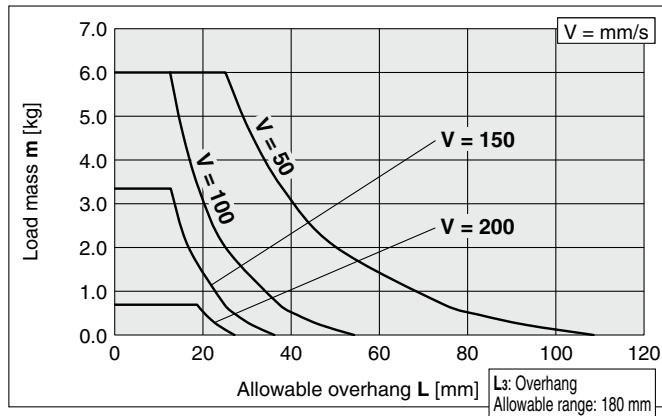
**MXQ16B-10, 20, 30, 40Z□**



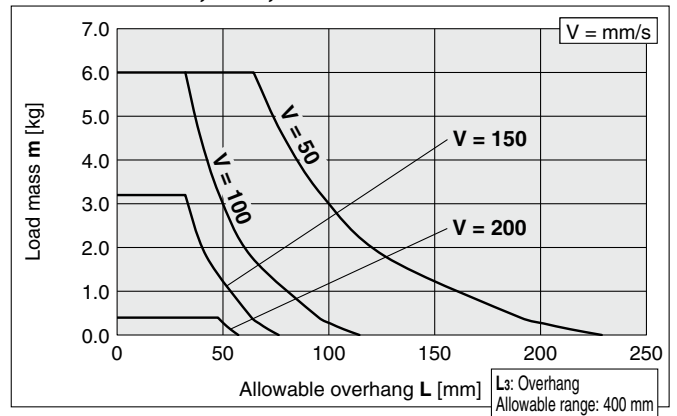
**MXQ16B-50Z□**



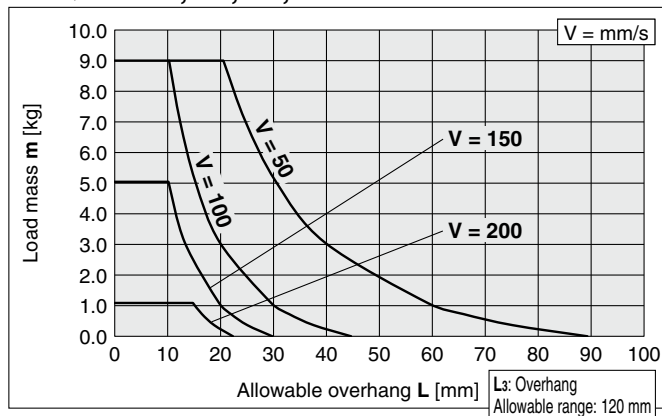
**MXQ16B-75Z□**



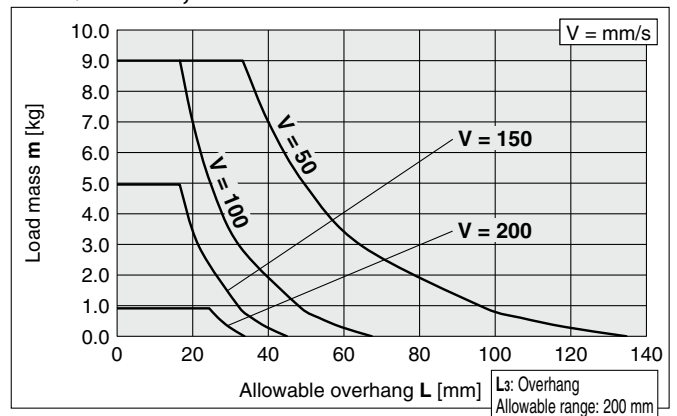
**MXQ16B-100, 125, 150Z□**



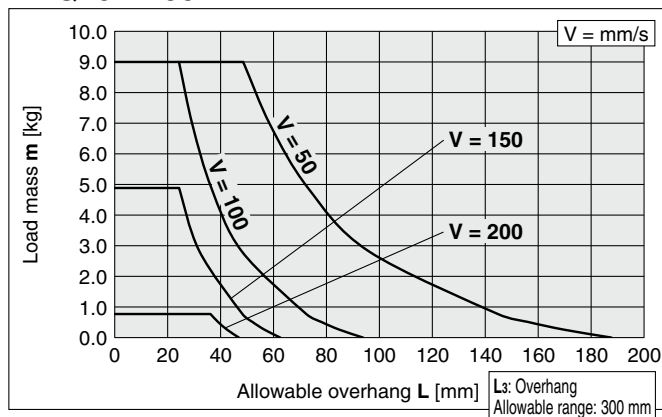
**MXQ20B-10, 20, 30, 40Z□**



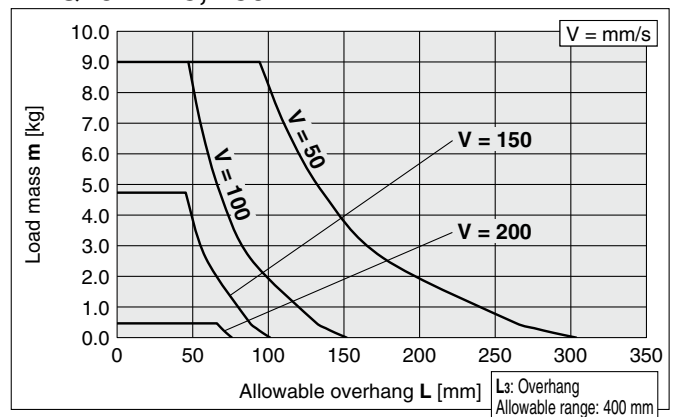
**MXQ20B-50, 75Z□**



**MXQ20B-100Z□**



**MXQ20B-125, 150Z□**



Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster  
 Options

Auto Switch  
 Mounting

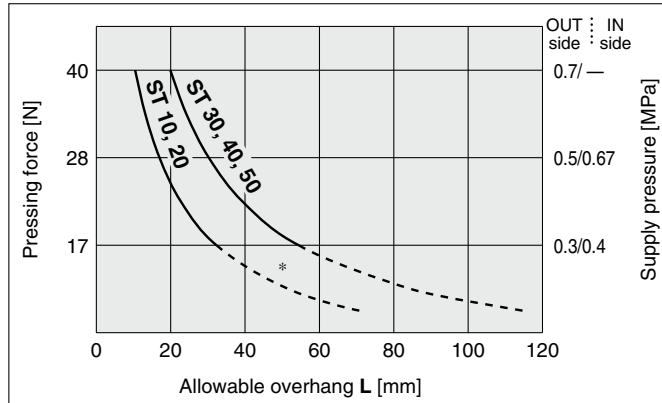
Made to Order

Model Selection

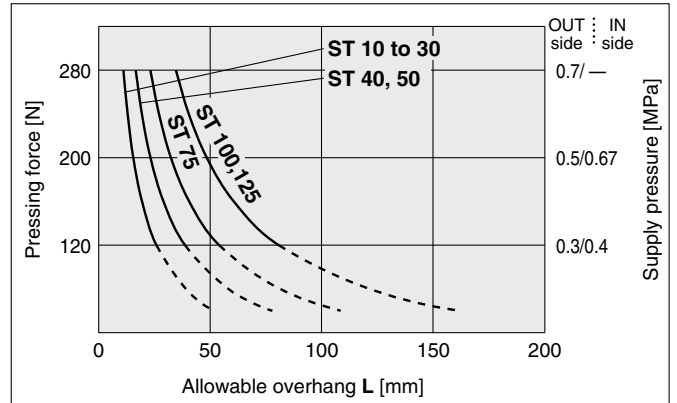
Determine the overhang. (Refer to page 159 for details.)  
 L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the pressing force and driving speed.

## Double-ported Type, Single Side-ported Type, Height Interchangeable Type/For Pressing

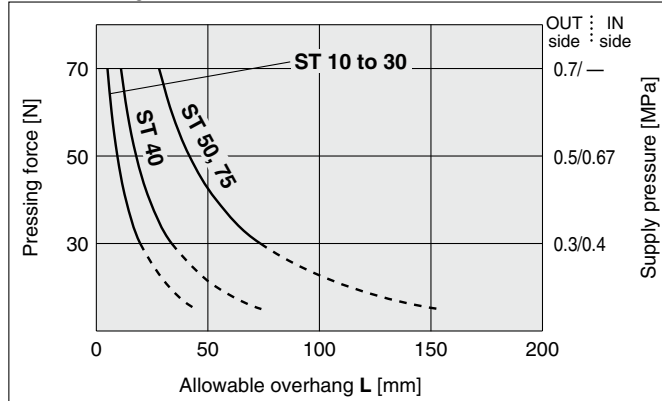
### MXQ6A-□Z



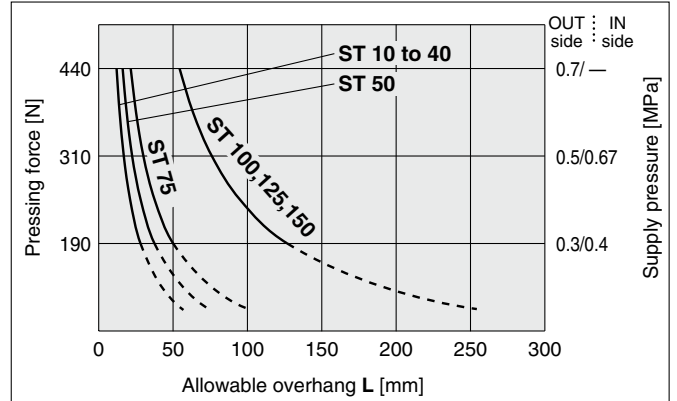
### MXQ16A-□Z



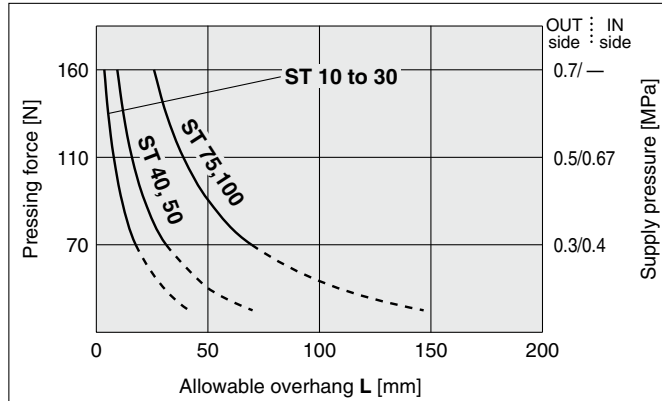
### MXQ8<sup>A</sup><sub>C</sub>-□Z



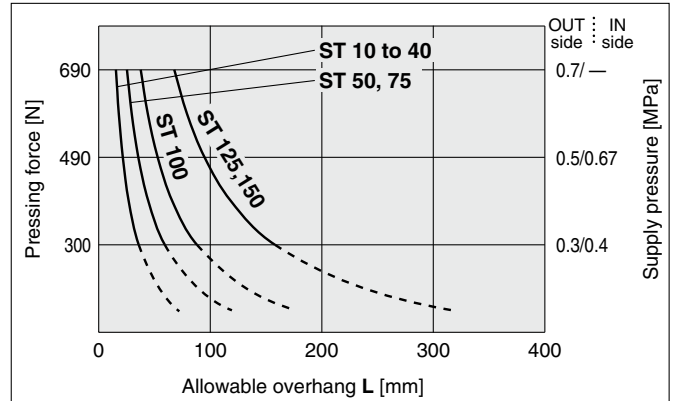
### MXQ20A-□Z



### MXQ12<sup>A</sup><sub>C</sub>-□Z



### MXQ25A-□Z

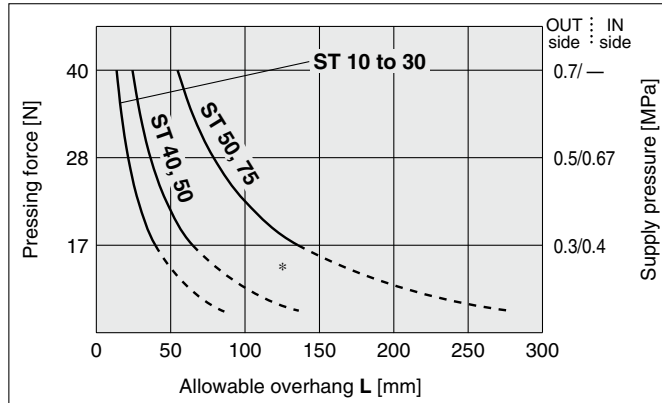


\* Pressing forces that fall in the dotted line portion of the graphs are reference values as pressing forces may vary.  
 \* ST = Stroke

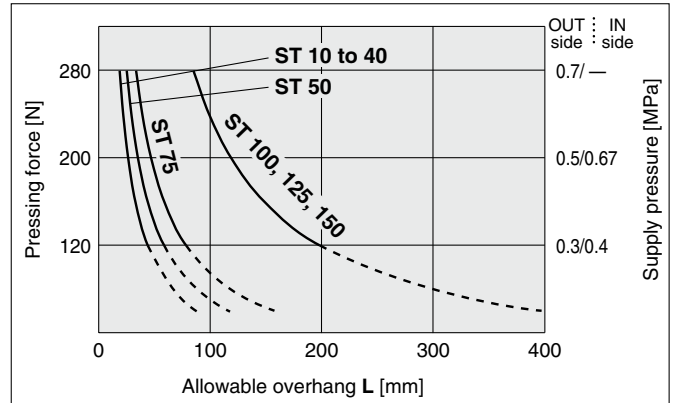
Determine the overhang. (Refer to page 159 for details.)  
L<sub>1</sub>, L<sub>2</sub>: Check from the cross point of the pressing force and driving speed.

**Low Thrust with High Rigidity Type/For Pressing**

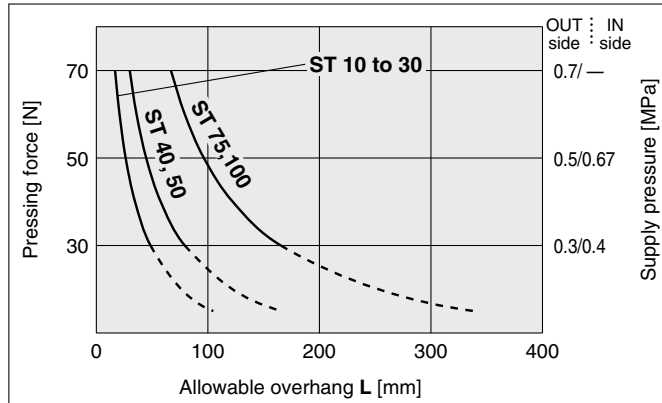
**MXQ6B-□Z**



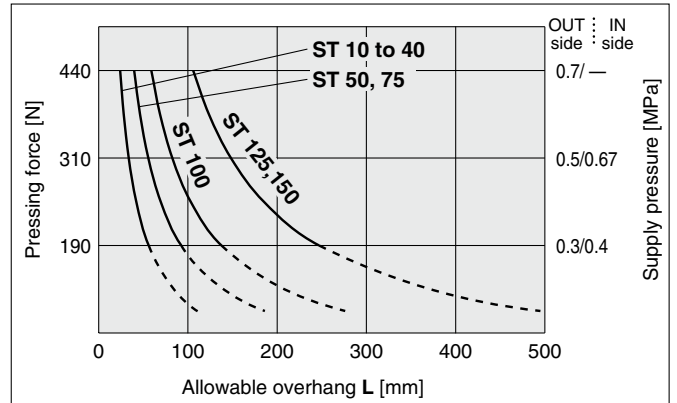
**MXQ16B-□Z**



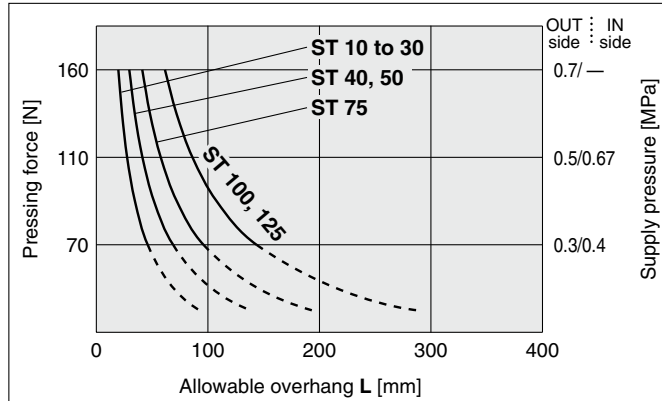
**MXQ8B-□Z**



**MXQ20B-□Z**



**MXQ12B-□Z**



\* Pressing forces that fall in the dotted line portion of the graphs are reference values as pressing force may vary.  
\* ST = Stroke

Double-ported type  
**MXQ□A**

Low thrust with high rigidity type  
**MXQ□B**

Single side-ported type  
**MXQ□C**

Height interchangeable type  
**MXQ□**

Common Adjuster Options

Auto Switch Mounting

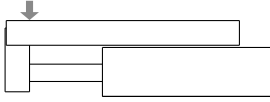
Made to Order

Model Selection

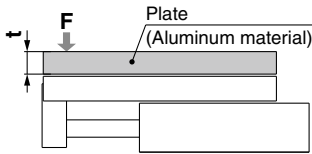
## Table Deflection (Reference Values)

### Table displacement due to pitch moment load

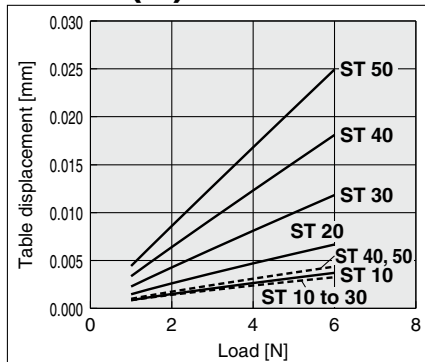
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



The dotted line shown in the graph below shows the displacement of the portion indicated by the arrow when the plate jig is mounted by the customer.

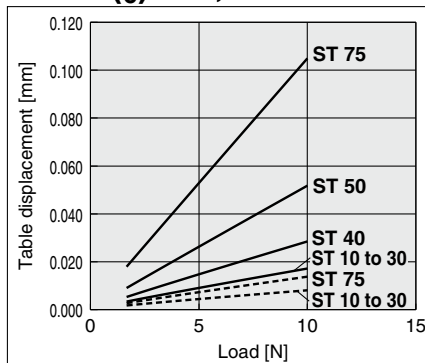


### MXQ6(A)-□Z



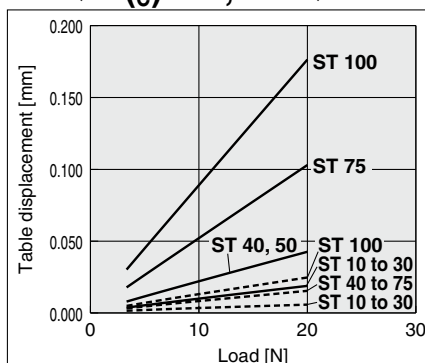
(Plate size: t = 8)

### MXQ8(A)<sub>(C)</sub>-□Z, MXQ6B-□Z



(Plate size: t = 8)

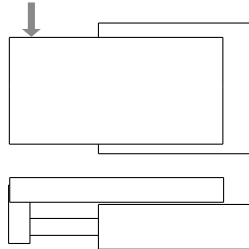
### MXQ12(A)<sub>(C)</sub>-□Z, MXQ8B-□Z



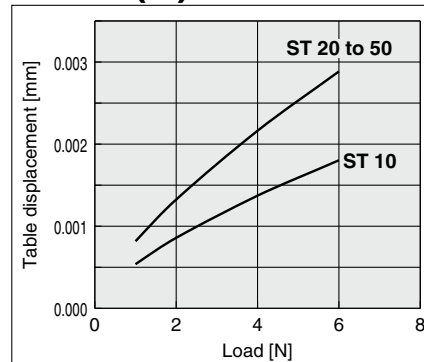
(Plate size: t = 10)

### Table displacement due to yaw moment load

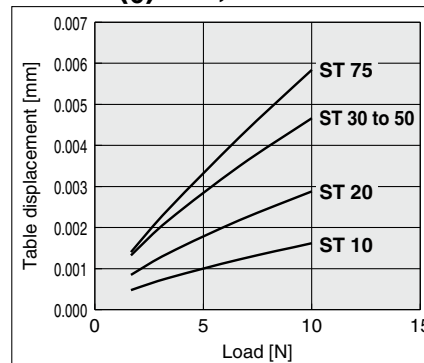
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



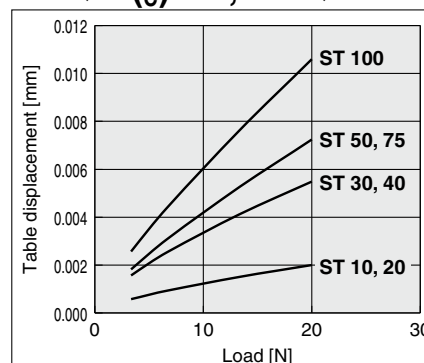
### MXQ6(A)-□Z



### MXQ8(A)<sub>(C)</sub>-□Z, MXQ6B-□Z

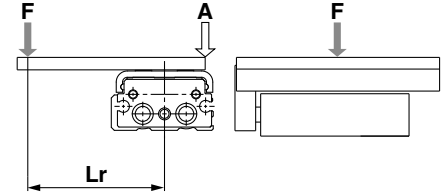


### MXQ12(A)<sub>(C)</sub>-□Z, MXQ8B-□Z



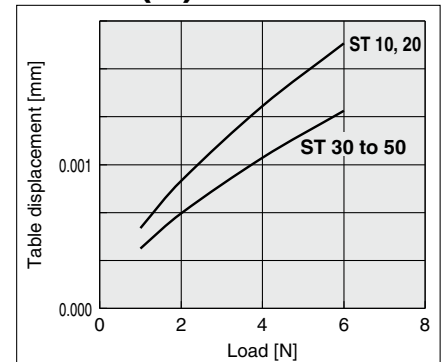
### Table displacement due to roll moment load

Displacement of part A when a load is applied to part F with the air slide table retracted



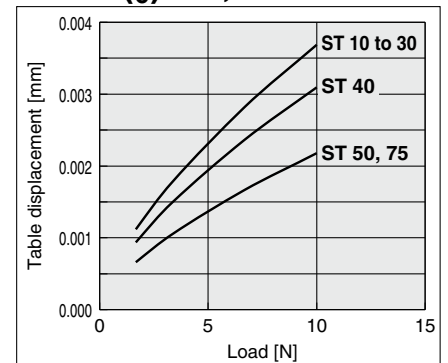
### MXQ6(A)-□Z

Lr = 40 mm



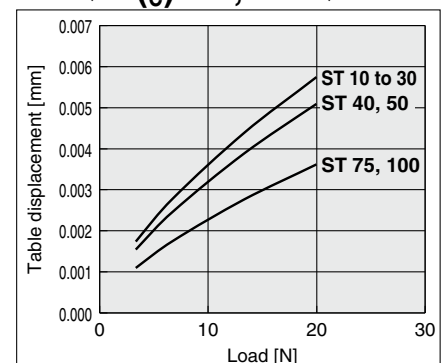
### MXQ8(A)<sub>(C)</sub>-□Z, MXQ6B-□Z

Lr = 70 mm



### MXQ12(A)<sub>(C)</sub>-□Z, MXQ8B-□Z

Lr = 90 mm

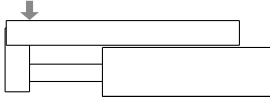


\* ST = Stroke

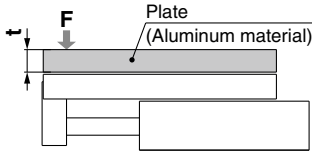
### Table Deflection (Reference Values)

#### Table displacement due to pitch moment load

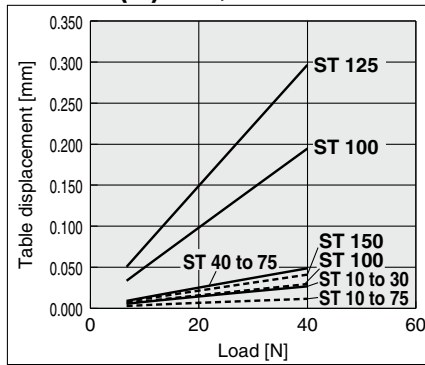
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



The dotted line shown in the graph below shows the displacement of the portion indicated by the arrow when the plate jig is mounted by the customer.

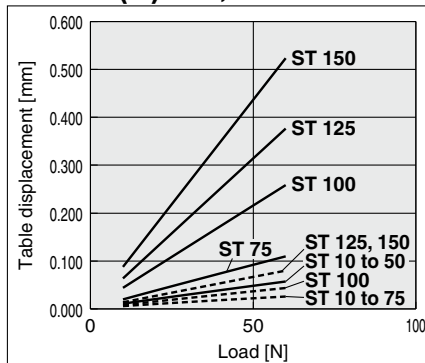


#### MXQ16(A)-□Z, MXQ12B-□Z



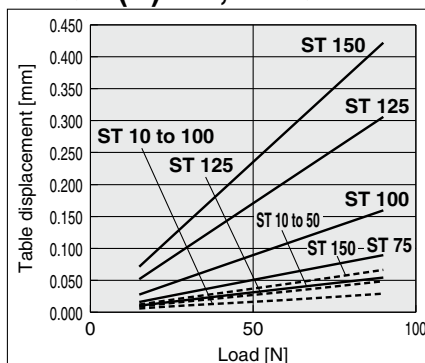
(Plate size: t = 12)

#### MXQ20(A)-□Z, MXQ16B-□Z



(Plate size: t = 12)

#### MXQ25(A)-□Z, MXQ20B-□Z

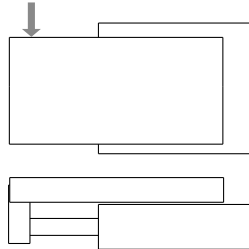


(Plate size: t = 15)

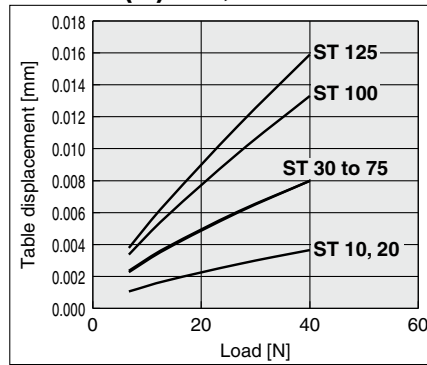
\* ST = Stroke

#### Table displacement due to yaw moment load

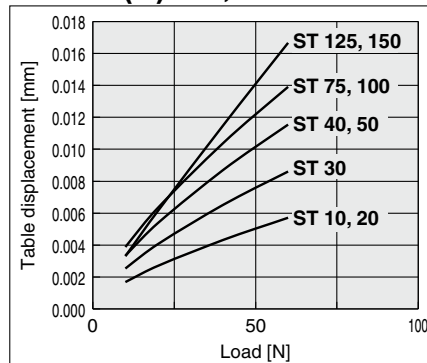
Displacement when a load is applied to the part indicated by the arrow for the entire stroke of the air slide table



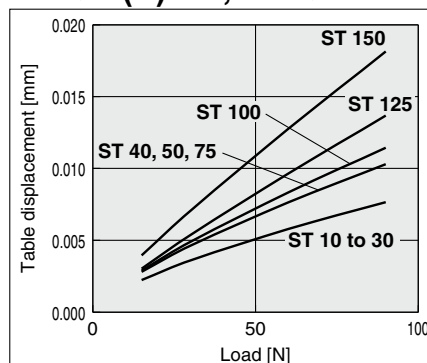
#### MXQ16(A)-□Z, MXQ12B-□Z



#### MXQ20(A)-□Z, MXQ16B-□Z

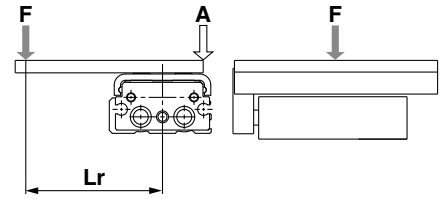


#### MXQ25(A)-□Z, MXQ20B-□Z

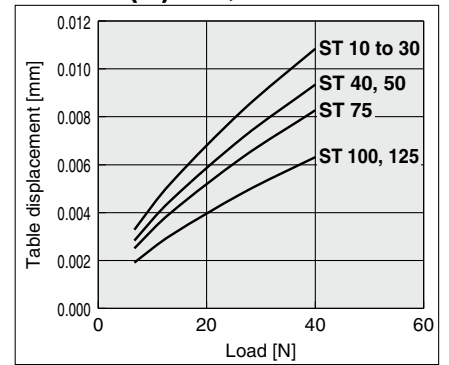


#### Table displacement due to roll moment load

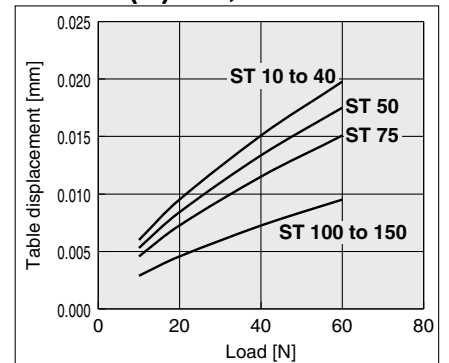
Displacement of part A when a load is applied to part F with the air slide table retracted



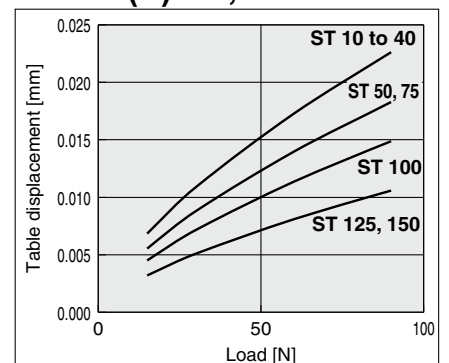
#### MXQ16(A)-□Z, MXQ12B-□Z



#### MXQ20(A)-□Z, MXQ16B-□Z



#### MXQ25(A)-□Z, MXQ20B-□Z



Double-ported type  
MXQ□A

Low thrust with high rigidity type  
MXQ□B

Single side-ported type  
MXQ□C

Height interchangeable type  
MXQ□

Common Adjuster  
Options

Auto Switch  
Mounting

Made to Order

Model Selection



# MXQ Series Specific Product Precautions 1

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

## Mounting

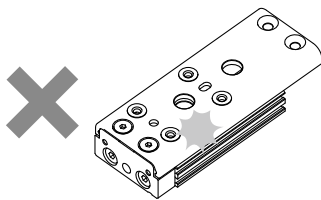
### ⚠ Caution

1. Do not scratch or dent the mounting side of the body, table, or end plate.

This can cause a loss of parallelism in the mounting surfaces, vibration in the guide unit, increased operating resistance, etc.

2. Do not scratch or dent the transfer surface of the rail or guide.

This could result in looseness, increased operating resistance, etc.



3. Do not apply excessive impact or loads when a workpiece is mounted.

If an external force over the allowable moment is applied, looseness of the guide unit or increased operating resistance may occur.

4. Flatness of mounting surface should be 0.02 mm or less.

Poor parallelism of the workpiece mounted on the body, the base, and other parts can cause vibration in the guide unit, increased operating resistance, etc.

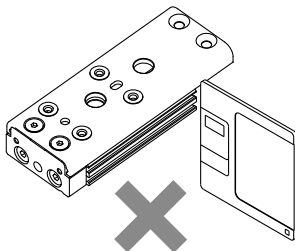
5. Select the proper connection when connecting with a load which has external support and/or a guide mechanism on the outside, and align it properly.

6. Avoid contact with the body during operation.

Hands, etc., may get caught in the stroke adjuster. Install a cover as a safety measure if there are instances when anyone will be near the slide table during operation.

7. Keep away from objects which are influenced by magnets.

As the body magnets are built-in, do not allow close contact with magnetic disks, magnetic cards, or magnetic tapes. Data may be erased.



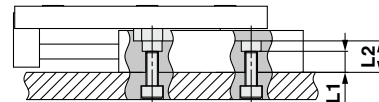
8. Do not touch a magnet to the table section.

Since the table is made from a magnetic substance, it could become magnetized if put in contact with a magnet, etc. This could cause auto switches, etc., to malfunction.

9. When mounting the body, use screws of the appropriate length and do not exceed the maximum tightening torque.

Tightening with a torque above the limit could cause a malfunction. Whereas, tightening insufficiently could result in misalignment or dropping.

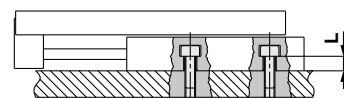
#### 1. Body tapped



**⚠ Caution** Types other than the MXQ20(A) and MXQ25(A) have through tapped holes. Use bolts that are at least 0.5 mm shorter than the maximum screw-in depth (L2). If long bolts are used, they may touch the end plate and cause a malfunction, etc.

| Model  | Bolt      | Max. tightening torque [N·m] | Screw-in depth L1 [mm] | Max. screw-in depth L2 [mm] |
|--------|-----------|------------------------------|------------------------|-----------------------------|
| MXQ6   | M4 x 0.7  | 2.1                          | 5                      | 8                           |
| MXQ8   | M4 x 0.7  | 2.1                          | 8                      | 11                          |
| MXQ12  | M5 x 0.8  | 4.4                          | 11                     | 15                          |
| MXQ16  | M6 x 1    | 7.4                          | 14                     | 19                          |
| MXQ20  | M6 x 1    | 7.4                          | 9                      |                             |
| MXQ25  | M8 x 1.25 | 18                           | 12                     |                             |
| MXQ6A  | M4 x 0.7  | 2.1                          | 8                      | 11                          |
| MXQ8A  | M4 x 0.7  | 2.1                          | 8                      | 11                          |
| MXQ12A | M5 x 0.8  | 4.4                          | 8                      | 12                          |
| MXQ16A | M6 x 1    | 7.4                          | 12                     | 17                          |
| MXQ20A | M6 x 1    | 7.4                          | 9                      |                             |
| MXQ25A | M8 x 1.25 | 18                           | 12                     |                             |
| MXQ6B  | M4 x 0.7  | 2.1                          | 5                      | 8                           |
| MXQ8B  | M5 x 0.8  | 4.4                          | 4                      | 9                           |
| MXQ12B | M6 x 1    | 7.4                          | 7                      | 12                          |
| MXQ16B | M6 x 1    | 7.4                          | 10                     | 15                          |
| MXQ20B | M8 x 1.25 | 18                           | 14                     | 20                          |
| MXQ8C  | M4 x 0.7  | 2.1                          | 6                      | 9                           |
| MXQ12C | M5 x 0.8  | 4.4                          | 8                      | 12                          |

#### 2. Through hole



| Model  | Bolt     | Max. tightening torque [N·m] | L [mm] |
|--------|----------|------------------------------|--------|
| MXQ6   | M3 x 0.5 | 1.1                          | 5.3    |
| MXQ8   | M3 x 0.5 | 1.1                          | 8.3    |
| MXQ12  | M4 x 0.7 | 2.7                          | 11.5   |
| MXQ16  | M5 x 0.8 | 5.4                          | 14.4   |
| MXQ20  | M5 x 0.8 | 5.4                          | 19.3   |
| MXQ25  | M6 x 1   | 9.2                          | 23.5   |
| MXQ6A  | M3 x 0.5 | 1.1                          | 8.3    |
| MXQ8A  | M3 x 0.5 | 1.1                          | 8.3    |
| MXQ12A | M4 x 0.7 | 2.7                          | 8.5    |
| MXQ16A | M5 x 0.8 | 5.4                          | 12.4   |
| MXQ20A | M5 x 0.8 | 5.4                          | 16.3   |
| MXQ25A | M6 x 1   | 9.2                          | 20.5   |
| MXQ6B  | M3 x 0.5 | 1.1                          | 5.3    |
| MXQ8B  | M4 x 0.7 | 2.7                          | 4.5    |
| MXQ12B | M5 x 0.8 | 5.4                          | 7.4    |
| MXQ16B | M5 x 0.8 | 5.4                          | 10.3   |
| MXQ20B | M6 x 1   | 9.2                          | 14.5   |
| MXQ8C  | M3 x 0.5 | 1.1                          | 6.3    |
| MXQ12C | M4 x 0.7 | 2.7                          | 8.5    |





# MXQ Series

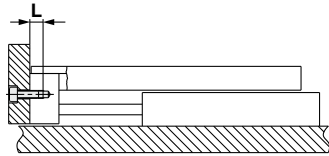
## Specific Product Precautions 2

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

### Mounting

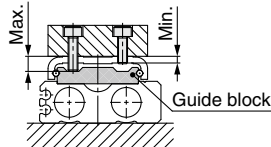
#### ⚠ Caution

#### 3. Front mounting



| Model       | Bolt   | Max. tightening torque [N·m] | Max. screw-in depth L [mm] |   |
|-------------|--------|------------------------------|----------------------------|---|
| MXQ6(A)     | —      | M3 x 0.5                     | 0.9                        | 5 |
| MXQ8(A, C)  | MXQ6B  | M3 x 0.5                     | 0.9                        | 5 |
| MXQ12(A, C) | MXQ8B  | M3 x 0.5                     | 0.9                        | 5 |
| MXQ16(A)    | MXQ12B | M4 x 0.7                     | 2.1                        | 6 |
| MXQ20(A)    | MXQ16B | M5 x 0.8                     | 4.4                        | 7 |
| MXQ25(A)    | MXQ20B | M6 x 1                       | 7.4                        | 9 |

#### 4. Top mounting



**⚠ Caution** In order to prevent the workpiece fixing bolt from hitting the table, use a bolt of a length at least 0.5 mm shorter than the maximum screw-in depth. If long bolts are used, they may touch the guide block and cause a malfunction, etc.

| Model       | Bolt   | Max. tightening torque [N·m] | Screw-in depth [mm] |      |     |
|-------------|--------|------------------------------|---------------------|------|-----|
|             |        |                              | Max.                | Min. |     |
| MXQ6(A)     | —      | M3 x 0.5                     | 1.1                 | 4.1  | 2.1 |
| MXQ8(A, C)  | MXQ6B  | M3 x 0.5                     | 1.1                 | 4.1  | 2.1 |
| MXQ12(A, C) | MXQ8B  | M4 x 0.7                     | 2.7                 | 5.7  | 2.7 |
| MXQ16(A)    | MXQ12B | M5 x 0.8                     | 5.4                 | 7.3  | 3.3 |
| MXQ20(A)    | MXQ16B | M5 x 0.8                     | 5.4                 | 7.3  | 3.3 |
| MXQ25(A)    | MXQ20B | M6 x 1                       | 9.2                 | 9    | 4   |

- The positioning holes on the table and on the bottom of the body do not have the same center. Use these holes during reinstallation after the table has been removed for the maintenance of an identical product.
- When the adjuster is mounted, a moment is generated by the cylinder thrust, causing displacement of the table end at stop. The displacement amount may vary depending on the supply pressure, mounting orientation, or model. For details, please contact your SMC sales representative.

### Mounting

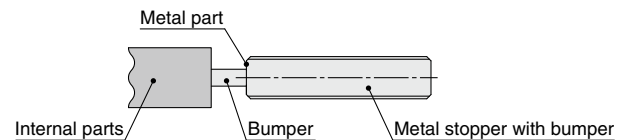
#### ⚠ Caution

- When using a metal stopper with bumper, use it at the minimum operating pressure level by taking the full compression force into consideration.

When using a metal stopper with bumper, the cylinder output decreases by the full compression of the bumper. If the output has no allowance, the bumper will not be fully compressed to the metal, causing the stop position to be unstable. When selecting a model, pay attention to the cylinder output. (Refer to the table below.)

In particular, when mounted upward in the vertical direction, not only the full compression force of the bumper, but also the workpiece mass should be taken into consideration.

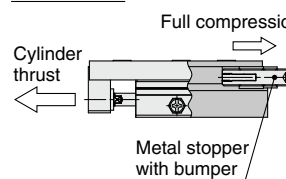
- Horizontal: Cylinder output > Full compression force of bumper
- Vertical: Cylinder output > Full compression force of bumper + (Workpiece mass + Mass of product moving parts)



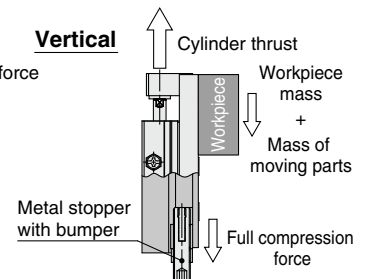
| Bore size [mm] | Min. operating pressure of metal stopper with bumper [MPa] | Reference) Full compression force [N] |
|----------------|--|---------------------------------------|
| 8              | 0.3  | 20                                    |
| 12             | 0.3  | 42                                    |
| 16             | 0.2  | 65                                    |
| 20             | 0.2  | 97                                    |
| 25             | 0.2  | 154                                   |

\* Not available for ø6

#### Horizontal



#### Vertical





## MXQ Series

# Specific Product Precautions 3

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For actuator and auto switch precautions, refer to the “Handling Precautions for SMC Products” and the “Operation Manual” on the SMC website: <http://www.smcworld.com>

### Operating Environment

#### ⚠ Caution

1. **Do not use in environments where the product could be exposed to liquids, such as cutting oil, etc.**

Using in an environment where the product could be exposed to cutting oil, coolant, oil, etc., could result in looseness, increased operating resistance, air leakage, etc.

2. **Do not use in environments where the product could be exposed directly to foreign matter, such as powder dust, blown dust, cutting chips, spatter, etc.**

This could result in looseness, increased operating resistance, air leakage, etc. Please consult with SMC regarding use in this kind of environment.

3. **Do not use in direct sunlight.**

4. **When there are heat sources in the surrounding area, block them off.**

When there are heat sources in the surrounding area, radiated heat may cause the product's temperature to rise and exceed the operating temperature range. Block off the heat with a cover, etc.

5. **Do not subject the product to excessive vibration and/or impact.**

Please consult with SMC regarding use in this kind of environment, as this can cause damage or a malfunction.

Although the table has adequate strength, if it is damaged, do not touch it with bare hands as the product may be razor-sharp. Serious injury may result.

6. **Use caution for the anti-corrosiveness of the linear guide section.**

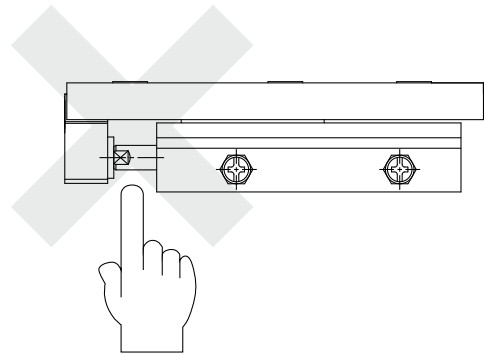
Martensitic stainless steel is used for the table and guide block. However, the anti-corrosiveness of this steel is inferior to that of austenitic stainless steel. In particular, rust may be generated in environments where waterdrops are likely to adhere due to condensation, etc.

### Other

#### ⚠ Warning

1. **Do not put hands or fingers between the table and bracket.**

Never put hands or fingers in the gap between the table and bracket when retracted. Doing so will result in injury to the hands, or fingers.



#### ⚠ Caution

1. **Do not disassemble or modify the product.**


2. **Performance stability**


The piston speed in the specification table shows the average speed. The actual speed of this product may vary slightly during the stroke depending on the operating conditions, such as the change of load resistance and pressure.


If a stable operation at low speed is necessary, please contact your local SMC sales office.

## Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of “**Caution**,” “**Warning**” or “**Danger**.” They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)\*1), and other safety regulations.

 **Caution:** **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

 **Warning:** **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

 **Danger :** **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

\*1) ISO 4414: Pneumatic fluid power – General rules relating to systems.  
ISO 4413: Hydraulic fluid power – General rules relating to systems.  
IEC 60204-1: Safety of machinery – Electrical equipment of machines.  
(Part 1: General requirements)  
ISO 10218-1: Manipulating industrial robots – Safety.  
etc.

### Warning

#### 1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

#### 2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

#### 3. Do not service or attempt to remove product and machinery/equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

#### 4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalog.
3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

### Caution

#### 1. The product is provided for use in manufacturing industries.

The product herein described is basically provided for peaceful use in manufacturing industries.  
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.  
If anything is unclear, contact your nearest sales branch.

### Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following “Limited warranty and Disclaimer” and “Compliance Requirements”.

Read and accept them before using the product.

#### Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.\*2)  
Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.  
This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

##### \*2) Vacuum pads are excluded from this 1 year warranty.

A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.  
Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

#### Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

### Caution

#### SMC products are not intended for use as instruments for legal metrology.

Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country. Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

#### Revision History

|                  |   |
|------------------|---|
| <b>Edition B</b> | * Excerpted from pages 35 to 163 of Best Pneumatics No. 3 (Ver. 5)<br>* Cylinder with stable lubrication function (Lube-retainer) has been added to page 5. RZ  |
| <b>Edition C</b> | * The centralized adjuster is available as standard.<br>* Made to order (Dual stroke specification, Side adjuster specification, Combined use of shock absorber + metal stopper, etc.) options have been added.<br>* Number of pages has been increased from 132 to 200. VR |

## Safety Instructions

Be sure to read the “Handling Precautions for SMC Products” (M-E03-3) and “Operation Manual” before use.