

Auto Switch Mounting Brackets/Part No.

| Auto switch model | Bore size (mm) | | | |
|--|--|--|--|--|
| | φ20 | φ25 | φ32 | φ40 |
| D-M9□(V) D-M9□W(V) D-A9□(V) | BM5-020 (A set of a, b, c, d) | BM5-025 (A set of a, b, c, d) | BM5-032 (A set of a, b, c, d) | BM5-040 (A set of a, b, c, d) |
| D-M9□A(V) <small>Note 2)</small> | BM5-020S (A set of b, c, d, e) | BM5-025S (A set of b, c, d, e) | BM5-032S (A set of b, c, d, e) | BM5-040S (A set of b, c, d, e) |
| | | | | |
| D-H7□ D-H7□W D-H7NF D-C7□/C80 D-C73C/C80C | BM2-020A (A set of band and screw) | BM2-025A (A set of band and screw) | BM2-032A (A set of band and screw) | BM2-040A (A set of band and screw) |
| D-H7BA | BM2-020AS (A set of band and screw) | BM2-025AS (A set of band and screw) | BM2-032AS (A set of band and screw) | BM2-040AS (A set of band and screw) |
| D-B5□/B64 D-B59W D-G5NT | BA2-020 (A set of band and screw) | BA2-025 (A set of band and screw) | BA2-032 (A set of band and screw) | BA2-040 (A set of band and screw) |
| D-A3□A/A44A <small>Note 3)</small> D-G39A/K39A | BM3-020 (A set of band and screw) | BM3-025 (A set of band and screw) | BM3-032 (A set of band and screw) | BM3-040 (A set of band and screw) |

Note 1) Since the switch bracket (made from nylon) are affected in an environment where alcohol, chloroform, methylamines, hydrochloric acid or sulfuric acid is splashed over, so it cannot be used. Please contact SMC regarding other chemicals.

Note 2) As the indicator LED is projected from the switch unit, indicator LED may be damaged if the switch bracket is fixed on the indicator LED.

Note 3) The D-A3□A/A44A/G39A/K39A cannot be mounted on the centralized piping type CDM2□P series.

Band Mounting Brackets Set Part No.

| Set part no. | Contents |
|--|---|
| BM2-□□□A(S) * S: Stainless steel screw | <ul style="list-style-type: none"> • Auto switch mounting band (c) • Auto switch mounting screw (d) |
| BJ4-1 | <ul style="list-style-type: none"> • Switch bracket (White/PBT) (e) • Switch holder (b) |
| BJ5-1 | <ul style="list-style-type: none"> • Switch bracket (Transparent/Nylon) (a) • Switch holder (b) |

Other than the applicable auto switches listed in “How to Order”, the following auto switches are mountable.

Refer to the **WEB catalog** or the Best Pneumatics No. 2 for the detailed specifications.

| Type | Model | Electrical entry | Features |
|--------------------|--------------------|-------------------|--|
| Solid state | D-H7A1, H7A2, H7B | Grommet (In-line) | — |
| | D-H7NW, H7PW, H7BW | | Diagnostic indication (2-color indication) |
| | D-H7BA | | Water resistant (2-color indication) |
| | D-G5NT | | With timer |
| Reed | D-B53, C73, C76 | Grommet (In-line) | — |
| | D-C80 | | Without indicator light |

* With pre-wired connector is also available for solid state auto switches. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.

* Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H) are also available. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.

Series CG1

Auto Switch Mounting Brackets/Part No.

| Auto switch model | Bore size (mm) | | | | | | | |
|--|---|---|---|---|---|---|------------------------------------|------------------------------------|
| | 20 | 25 | 32 | 40 | 50 | 63 | 80 | 100 |
| D-M9□(V) D-M9□W(V) D-A9□(V) | BMA3-020 (A set of a, b, c, d) | BMA3-025 (A set of a, b, c, d) | BMA3-032 (A set of a, b, c, d) | BMA3-040 (A set of a, b, c, d) | BMA3-050 (A set of a, b, c, d) | BMA3-063 (A set of a, b, c, d) | — | — |
| D-M9□A(V) ^{Note 2)} | BMA3-020S (A set of b, c, d, e) | BMA3-025S (A set of b, c, d, e) | BMA3-032S (A set of b, c, d, e) | BMA3-040S (A set of b, c, d, e) | BMA3-050S (A set of b, c, d, e) | BMA3-063S (A set of b, c, d, e) | — | — |
| <p> Switch bracket (Resin) a Transparent (Nylon) ^{Note 1)} e White (PBT) </p> <p> b Switch holder </p> <p> c Auto switch mounting band </p> <p> d Auto switch mounting screw </p> <p> * Band (c) is mounted so that the projected part is on the internal side (contact side with the tube). </p> | | | | | | | | |
| D-H7□ D-H7□W D-H7NF D-C7□/C80 D-C73C/C80C | BMA2-020A (A set of band and screw) | BMA2-025A (A set of band and screw) | BMA2-032A (A set of band and screw) | BMA2-040A (A set of band and screw) | BMA2-050A (A set of band and screw) | BMA2-063A (A set of band and screw) | — | — |
| D-H7BA | BMA2-020AS (A set of band and screw) | BMA2-025AS (A set of band and screw) | BMA2-032AS (A set of band and screw) | BMA2-040AS (A set of band and screw) | BMA2-050AS (A set of band and screw) | BMA2-063AS (A set of band and screw) | — | — |
| D-G5□/K59 D-G5□W/K59W D-G5BA/G59F D-G5NT D-B5□/B64 D-B59W D-G5NB | BA-01 (A set of band and screw) | BA-02 (A set of band and screw) | BA-32 (A set of band and screw) | BA-04 (A set of band and screw) | BA-05 (A set of band and screw) | BA-06 (A set of band and screw) | BA-08 (A set of band and screw) | BA-10 (A set of band and screw) |

Note 1) Since the switch bracket (made from nylon) are affected in an environment where alcohol, chloroform, methylamines, hydrochloric acid or sulfuric acid is splashed over, so it cannot be used.

Please contact SMC regarding other chemicals.

Note 2) As the indicator LED is projected from the switch unit, indicator LED may be damaged if the switch bracket is fixed on the indicator LED.

Band Mounting Brackets Set Part No.

| Set part no. | Contents |
|--|---|
| BMA2-□□□A(S) * S: Stainless steel screw | <ul style="list-style-type: none"> Auto switch mounting band (c) Auto switch mounting screw (d) |
| BJ4-1 | <ul style="list-style-type: none"> Switch bracket (White/PBT) (e) Switch holder (b) |
| BJ5-1 | <ul style="list-style-type: none"> Switch bracket (Transparent/Nylon) (a) Switch holder (b) |

[Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit is available. Use it in accordance with the operating environment.

(Since the auto switch mounting bracket is not included, order it separately.)

BBA3: D-B5/B6/G5/K5 types

Note 3) Refer to the **WEB catalog** or the Best Pneumatics No. 2 for details on the BBA3.

When the D-G5BA type auto switch is shipped independently, the BBA3 is attached.

Series CJ2

Operating Range

| Auto switch model | | Bore size [mm] | | |
|--|--|--|-----|-----|
| | | 6 | 10 | 16 |
| Band mounting | D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV | 2 | 2.5 | 3 |
| | D-A9□ | 4.5 | 6 | 7 |
| | D-H7□/H7□W D-H7BA/H7NF | 3 | 4 | 4 |
| | D-H7C | 5 | 8 | 9 |
| | D-C7□/C80/C73C/C80C | 6 | 7 | 7 |
| | Rail mounting | D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV | — | 3 |
| D-A9□/A9□V | | — | 6 | 6.5 |
| D-F7□/J79/F7□W/J79W D-F7□V/F7□WV/F79F D-J79C/F7BA/F7BAV D-F7NT | | — | 5 | 5 |
| D-A7□/A80/A7H/A80H D-A73C/A80C | | — | 8 | 9 |
| D-A79W | | — | 11 | 13 |
| *: Values which include hysteresis are for guideline purposes only, they are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment. | | | | |

*: Values which include hysteresis are for guideline purposes only, they are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

Auto Switch Mounting Brackets/Part No.

| Auto switch mounting | Auto switch model | Bore size [mm] | | |
|----------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|
| | | 6 | 10 | 16 |
| Band mounting | D-M9□ D-M9□V D-M9□W D-M9□WV D-A9□ D-A9□V | BJ6-006 (A set of a, b, d, f) | BJ6-010 (A set of a, b, c, d) | BJ6-016 (A set of a, b, c, d) |
| | D-M9□A*2 D-M9□AV*2 | BJ6-006S (A set of a, b, d, g) | BJ6-010S (A set of a, b, d, e) | BJ6-016S (A set of a, b, d, e) |
| Band mounting | | | | |
| Band mounting | D-H7□/H7□W D-H7BA/H7NF D-C7□/C80 D-C73C/C80C | BJ2-006 (A set of band and screw) | BJ2-010 (A set of band and screw) | BJ2-016 (A set of band and screw) |
| Rail mounting | D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A*4 D-M9□AV*4 D-A9□ D-A9□V | — | BQ2-012 (S) (A set of a and b) | BQ2-012 (S) (A set of a and b) |
| | | | | |

*1: Since the switch bracket (made from nylon) are affected in an environment where alcohol, chloroform, methylamines, hydrochloric acid or sulfuric acid is splashed over, so it cannot be used. Please contact SMC regarding other chemicals.

*2: As the indicator LED is projected from the auto switch unit, indicator LED may be damaged if the switch bracket is fixed on the indicator LED.

*3: When the cylinder is shipped, the auto switch mounting bracket and the auto switch will be included.

*4: For D-M9□A(V), order the BQ2-012S, which uses stainless steel mounting screws.

Band Mounting Brackets Set Part No.

| Set part no. | Contents | Bore size [mm] | | |
|--------------|--|----------------|---------|---------|
| | | 6 | 10 | 16 |
| BJ2-□□□ | • Auto switch mounting band (a) • Auto switch mounting screw (b) | BJ2-006 | BJ2-010 | BJ2-016 |
| BJ4-1 | • Switch bracket (White/PBT) (e) • Switch holder (d) | — | ● | ● |
| BJ4-2 | • Switch bracket (Black/PBT) (g) • Switch holder (d) | ● | — | — |
| BJ5-1 | • Switch bracket (Transparent/Nylon) (c)*1 • Switch holder (d) | — | ● | ● |
| BJ5-2 | • Switch bracket (Transparent blue/Nylon) (f)*1 • Switch holder (d) | ● | — | — |

[Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit is available. Use it in accordance with the operating environment. (Since the auto switch mounting bracket is not included, order it separately.)

BBA4: For D-C7/C8/H7 types

*5: Refer to the **WEB catalog** or the Best Pneumatics No. 2 for details on the BBA4.

When the D-H7BA type auto switch is shipped independently, the BBA4 is attached.

Series NCM

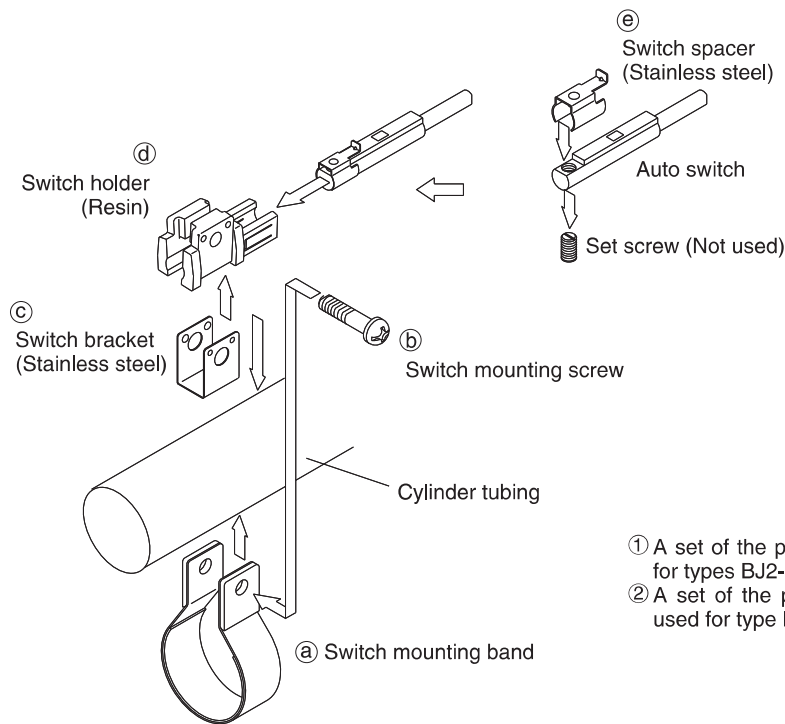
Auto Switch Mounting

Auto Switch Mounting Bracket Part No.

| Auto switch model | Bore size | | | | | | | |
|--|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| | 044 | 056 | 075 | 088 | 106 | 125 | 150 | 200 |
| D-M9□(V) D-M9□W(V) D-A9□(V) | Note 1) ① BJ2-012 ② BJ3-1 | Note 1) ① BJ2-015 ② BJ3-1 | Note 1) ① NBM2-075 ② BJ3-1 | Note 1) ① NBM2-088 ② BJ3-1 | Note 1) ① NBM2-106 ② BJ3-1 | Note 1) ① NBM2-125 ② BJ3-1 | Note 1) ① NBM2-150 ② BJ3-1 | Note 1) ① NCMB-200 ② BJ3-1 |
| D-H7□ D-H7□W D-H7BAL D-H7NF D-C7□/80 D-C73C/80C | BJ2-012 | BJ2-015 | NBM2-075 | NBM2-088 | NBM2-088 | NBM2-125 | NBM2-150 | NCMB-200 |
| D-G5NTL D-B5□/B59W/B64 | - | - | NBA-075 | NBA-088 | NBA-106 | NBA-125 | NBA-150 | NCMA-200 |

Note 1) Two types of auto switch mounting brackets are used as a set.

Note 2) D-G5NTL, B5□, B64, B59W cannot be mounted on models with bore size 044 and 056.



① A set of the parts marked (a) and (b) in the diagram is used for types BJ2-□□□, NBM2-□□□, and NCMB-200.

② A set of the parts marked (c), (d) and (e) in the diagram is used for type BJ3-1.

Stainless steel screw set

The set of stainless steel mounting screws described below is available and can be used depending on the operating environment. As auto switch bracket is not included, order separately.

Detailed Contents of Stainless Steel Mounting Screw Sets

| Part no. | Content | | | Applicable auto switch mounting bracket part no. | Applicable auto switch |
|----------|----------------------------|------------|------|---|----------------------------|
| | Description | Size | Qty. | | |
| BBA3 | Auto switch mounting screw | M4X0.7X22L | 1 | NBA-075/088/106/125/150 NCMA-200 | D-G5NTL D-B5□□ D-B64 |
| BBA4 | Auto switch mounting screw | M3X0.5X14L | 1 | BJ2-012/015 NBM2-075/088/106/125/150 NCMB-200 | D-H7□□ D-C7□□ D-C80□ |

D-H7BAL switch is set on the cylinder with the stainless steel screws (BBA4) above when shipped. When only a switch is shipped independently, BBA4 screws are attached.

C85/C75 Series

Auto Switch Mounting Bracket/Set Part Nos.

| Auto switch mounting | Auto switch model | C85 Series | | | | | | C75 Series | |
|---------------------------------------|--|---|---|---|---|---|---|---|---|
| | | Bore size [mm] | | | | | | | |
| | | ø8 | ø10 | ø12 | ø16 | ø20 | ø25 | ø32 | ø40 |
| *1 *2 *3 *4 Band mounting | D-M9□(V) D-M9□W(V) D-A9□(V)*7 | BJ6-008 (A set of a, b, c, d) | BJ6-010 (A set of a, b, c, d) | BJ6-012 (A set of a, b, c, d) | BJ6-016 (A set of a, b, c, d) | BM5-020 (A set of a, b, c, d) | BM5-025 (A set of a, b, c, d) | BM5-032 (A set of a, b, c, d) | BM5-040 (A set of a, b, c, d) |
| | D-M9□A(V) | BJ6-008S (A set of a, b, c, e) (Screw: Stainless steel) | BJ6-010S (A set of a, b, c, e) (Screw: Stainless steel) | BJ6-012S (A set of a, b, c, e) (Screw: Stainless steel) | BJ6-016S (A set of a, b, c, e) (Screw: Stainless steel) | BM5-020S (A set of a, b, c, e) (Screw: Stainless steel) | BM5-025S (A set of a, b, c, e) (Screw: Stainless steel) | BM5-032S (A set of a, b, c, e) (Screw: Stainless steel) | BM5-040S (A set of a, b, c, e) (Screw: Stainless steel) |
| | | | | | | | | | |
| *5 *6 Rail mounting | D-C7□/C80 D-C73C/C80C D-H7□/H7□W D-H7BA/H7NF | BJ2-008 (A set of a and b) | BJ2-010 (A set of a and b) | BJ2-012 (A set of a and b) | BJ2-016 (A set of a and b) | BM2-020A (A set of a and b) | BM2-025A (A set of a and b) | BM2-032A (A set of a and b) | BM2-040A (A set of a and b) |
| | D-M9□(V)*8 D-M9□W(V)*8 D-M9□A(V)*8 D-A9□(V)*7 | BQ2-012 (S) (A set of f and g) | | | | | | | |
| | | | | | | | | | |

- *1 Since the switch bracket for band mounting (made from nylon) are affected in an environment where alcohol, chloroform, methylamines, hydrochloric acid or sulfuric acid is splashed over, so it cannot be used. Please contact SMC regarding other chemicals.
- *2 In the case of band mounting auto switches, make sure the indicator LED is not directly below switch mounting bracket when mounted as the protruding LED may be damaged.
- *3 For band mounting, switch brackets are mounted on the cylinder when small switches are specified. (switches are not mounted, but packaged together).
- *4 For band mounting, when specifying the switches other than the small switches, auto switch(s) are mounted on the cylinder.
- *5 For rail mounting, the auto switches and auto switch mounting brackets are packed together (not assembled).
- *6 For rail mounting, when D-M9□A(V) is ordered separately, select the stainless steel mounting screw set BQ2-012S.
- *7 When mounting a band and/or a rail on bore size ø8, ø10 or ø12 cylinder, D-A9□(V) type cannot be mounted.
- *8 When mounting a rail on bore size ø20 or ø25 cylinder, D-M9□(V), M9□W(V) and M9□A(V) types cannot be mounted.

Auto Switch Mounting Bracket/Single Unit Part Nos.

| Auto switch model | C85 Series | | | | | | C75 Series | | Parts lineup |
|-----------------------------------|------------|----------|----------|----------|-----------|-----------|------------|-----------|---|
| | ø8 | ø10 | ø12 | ø16 | ø20 | ø25 | ø32 | ø40 | |
| D-M9□(V) D-M9□W(V) D-A9□(V) | BJ2-008 | BJ2-010 | BJ2-012 | BJ2-016 | BM2-020A | BM2-025A | BM2-032A | BM2-040A | · Auto switch mounting band (a) · Auto switch mounting screw (b) |
| | BJ5-2 | BJ5-1 | | | | | | | · Switch holder (c) · Switch bracket (d) |
| D-M9□A(V) | BJ2-008S | BJ2-010S | BJ2-012S | BJ2-016S | BM2-020AS | BM2-025AS | BM2-032AS | BM2-040AS | · Auto switch mounting band (a) · Auto switch mounting screw (b) |
| | BJ4-2 | BJ4-1 | | | | | | | · Switch holder (c) · Switch bracket (e) |

[Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit is available. Use it in accordance with the operating environment. (Since the auto switch mounting bracket is not included, order it separately.)

BBA4: For D-C7/C8/H7 types

- * Refer to the **Web Catalog** or Best Pneumatics No. 2-1 for details on the BBA4.
- When the D-H7BA type auto switch is shipped independently, the BBA4 is attached.

Other than the applicable auto switches listed in “How to Order”, the following auto switches are mountable.

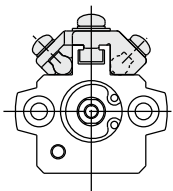
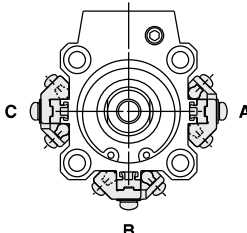
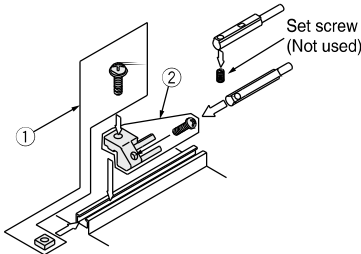
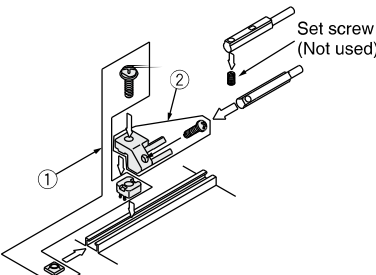
Refer to Best Pneumatics No. 2-1 for the detailed specifications.

| Type | Model | Electrical entry | Features | Mounting | Applicable bore size |
|-------------|--------------------|-------------------|---|----------|----------------------|
| Reed | D-C73, C76 | Grommet (In-line) | — | Band | ø8 to ø25 |
| | D-C80 | | Without indicator light | | |
| Solid state | D-H7A1, H7A2, H7B | Grommet (In-line) | — | Band | ø8 to ø25 |
| | D-H7NW, H7PW, H7BW | | Diagnostic indication (2-color indicator) | | |

- * Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H) are also available. For details, refer to Best Pneumatics No. 2-1.
- * With pre-wired connector is also available for solid state switches. For details, refer to Best Pneumatics No. 2-1.

4 Auto Switch Mounting Brackets/Part No.

Applicable Cylinder Series: CDQP2, CDQP2□□□-□S/-□T (Axial piping)

| Auto switch mounting surface | Bore size (mm) | |
|--|---|---|
| | φ12, φ16, φ20, φ25 | φ32 to φ100 |
| |  |  |
| Auto switch model | Auto switch mounting surface Auto switch mounting rail side only | Auto switch mounting surface A/B/C side |
| D-A9□ D-A9□V D-M9□ D-M9□V D-M9□W D-M9□WV D-M9□A D-M9□AV | ① BQ-1 ② BQ2-012 Two kinds of auto switch brackets are used as a set.  | ① BQ-2 ② BQ2-012 Two kinds of auto switch brackets are used as a set.  |

Note 1) When shipping cylinders, auto switch mounting brackets and auto switches are shipped together.

| Auto switch model | Bore size (mm) | | |
|--|----------------|-----|-------------|
| | φ12 to φ25 | φ32 | φ40 to φ100 |
| D-A7□/A80 D-A73C/A80C D-A7□H/A80H D-A79W D-F7□/J79 D-F7□V D-J79C D-F7□W/J79W D-F7□WV D-F7BA/F7BAV D-F79F/F7NT | BQ-1 | | BQ-2 |
| D-P4DW | — | | BQP1-050 |

Note 2) When shipping cylinders, auto switch mounting brackets and auto switches are shipped together.

However, when the D-P4DW type with φ40 to φ100 is mounted, the auto switch is assembled at the time of shipment.

Note 3) Refer to pages 1658 to 1660 for further information on auto switch mounting method.

[Stainless Steel Mounting Screw Kit]

The following stainless steel mounting screw kit (with nuts) is available. Use it in accordance with the operating environment. (Since auto switch spacer (for BQ-2) is not included, order BQ-2 separately.)

BBA2: For D-A7/A8/F7/J7 types

The above stainless steel screws are used when a cylinder is shipped with the D-F7BA/F7BAV auto switches.

When only an auto switch is shipped independently, BBA2 is attached.

Note 4) Refer to page 1659 for details of BBA2.

Note 5) When the D-M9□A(V) type is mounted, order auto switch mounting brackets BQ2-012S, BQ-2 or the stainless steel mounting screw kit BBA2 separately.

Auto Switch Mounting Bracket/Weight

| Mounting bracket part no. | Applicable bore size | Weight (g) |
|---------------------------|----------------------|------------|
| BQ-1 | φ12 to φ25 | 1.5 |
| BQ-2 | φ32 to φ100 | 1.5 |
| BQ2-012 | φ12 to φ25 | 5 |
| BQP1-050 | φ40 to φ100 | 16 |

CUJ

CU

CQS

CQ2
-Z

RQ

CQM

CQU

MU
-Z

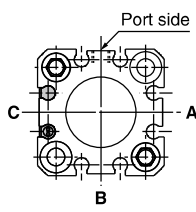
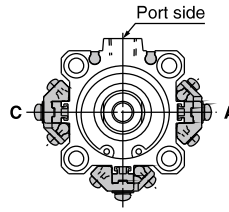
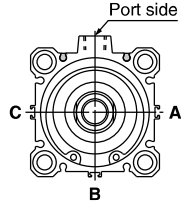
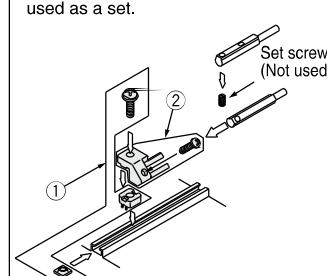
D-□

-X□

Technical
data

4 Auto Switch Mounting Brackets/Part No.

Applicable Cylinder Series: CDBQ2 (With end lock)

| Auto switch mounting surface | Bore size (mm) | | | |
|--|---|---|---|---|
| | $\phi 20, \phi 25$ | $\phi 32, \phi 40, \phi 50$ | $\phi 63, \phi 80, \phi 100$ | |
| |  |  |  | |
| Auto switch model | Auto switch mounting surface Port/A/B/C side | Auto switch mounting surface Port side | Auto switch mounting surface A/B/C side | Auto switch mounting surface Port/A/B/C side |
| D-A9 □ D-A9 □V D-M9 □ D-M9 □V D-M9 □W D-M9 □WV D-M9 □A D-M9 □AV | Auto switch mounting brackets are not required. | Auto switch mounting brackets are not required. | ① BQ-2 ② BQ2-012 Two kinds of auto switch brackets are used as a set.  | Auto switch mounting brackets are not required. |

Note 1) When a compact auto switch is mounted on the three sides (A, B and C above) other than the port side of $\phi 32$ to $\phi 50$ cylinders, auto switch mounting brackets shown above are required. Order them separately from cylinders.
 (The above is also applicable when a compact auto switch is mounted using an auto switch mounting rail, but not using a compact auto switch installation groove for $\phi 63$ to $\phi 100$ cylinders.)

Ordering example
 CDBQ2B32-50D-M9BW.....1 pc.
 BQ-2.....2 pcs.
 BQ2-012.....2 pcs.

Note 2) When shipping cylinders, auto switch mounting brackets and auto switches are shipped together.

| Auto switch model | Bore size (mm) | | | | | |
|---|----------------|----|----------|----|----|-----|
| | 32 | 40 | 50 | 63 | 80 | 100 |
| D-A7 □/A80 D-A73C /A80C D-A7 □H/A80H D-A79W D-F7 □/J79 D-F7 □V D-J79C D-F7 □W/J79W D-F7 □WV D-F7BA /F7BAV D-F79F /F7NT | BQ-2 | | | | | |
| D-P4DW | — | | BQP1-050 | | | |

Note 3) When shipping cylinders, auto switch mounting brackets and auto switches are shipped together.

Note 4) Refer to pages 1658 to 1660 for further information on auto switch mounting method.

[Stainless Steel Mounting Screw Kit]

The following stainless steel mounting screw kit (with nuts) is available. Use it in accordance with the operating environment. (Since auto switch spacer (for BQ-2) is not included, order BQ-2 separately.)

BBA2: For D-A7/A8/F7/J7 types

The above stainless steel mounting screws are used when a cylinder is shipped with the D-F7BA/F7BAV auto switches.

When only an auto switch is shipped independently, BBA2 is attached.

Note 5) Refer to page 1659 for details of BBA2.

Note 6) When the D-M9□A(V) type is mounted on a port side other than $\phi 32$, $\phi 40$ or $\phi 50$, order auto switch mounting brackets BQ2-012S, BQ-2 or the stainless steel mounting screw kit BBA2 separately.

Auto Switch Mounting Bracket/Weight

| Mounting bracket part no. | Weight (g) |
|---------------------------|------------|
| BQ-2 | 1.5 |
| BQ2-012 | 5 |
| BQP1-050 | 16 |

CUJ

CU

CQS

CQ2-Z

RQ

CQM

CQU

MU-Z

D-□

-X□

Technical data

4 Auto Switch Mounting Brackets/Part No.

Applicable Cylinder Series: CDQ2, CDQ2W, CDQ2□□□-□S/□T (Single acting), CDQ2, CDQ2W (Large bore size), CDQ2K, CDQ2KW (Non-rotating rod), CDQ2 (Long stroke), CDQ2□S (Anti-lateral load), CDQ2□R/□V (Water resistant)

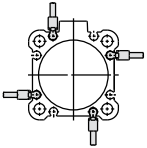
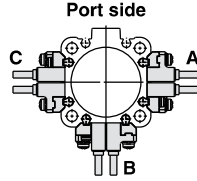
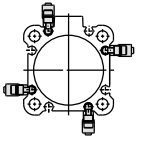
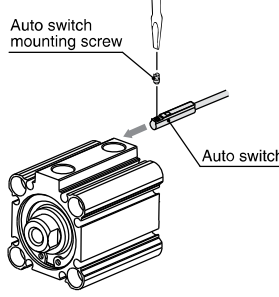
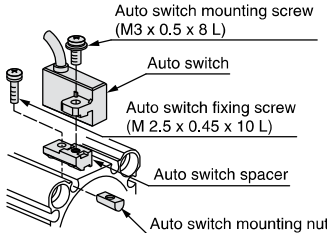
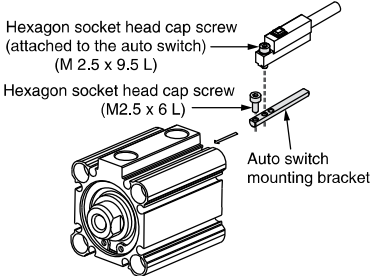
| Applicable auto switch | D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | D-F7□/F7□V/J79/J79C/F7□W/J79W/F7□WV D-F7BA/F7BAV/F79F/F7NT D-A7□/A80/A7□H/A80H/A73C/A80C/A79W | | D-P3DWA | | | | | | | | |
|--|---|---|---|---|--------------|-----------|-----------|----------|--------------|--|--|---|
| Bore size (mm) | ø12 to ø200 | ø12 to ø25 | ø32 to ø160 | ø32 to ø100 | | | | | | | | |
| Auto switch mounting bracket part no. | — | BQ4-012 | BQ5-032 | — | | | | | | | | |
| Auto switch mounting bracket fitting parts lineup/Weight | — | <ul style="list-style-type: none"> Auto switch mounting screw (M2.5 x 8L) Auto switch mounting nut Weight: 1.5 g | <ul style="list-style-type: none"> Auto switch fixing screw (M2.5 x 10L) Auto switch mounting screw (M3 x 8L) Auto switch spacer Auto switch mounting nut Weight: 3.5 g | — | | | | | | | | |
| | | When requesting the enclosure of the auto switch mounting brackets (2 pcs.) with the cylinder for shipment, add "-BQ" to the end of the cylinder model number. Standard model no. +BQ Example) CDQ2B32-30DZ-BQ/ CDQ2B32-30DZ-BQ-XC4 (Made to Order) | | | | | | | | | | |
| Auto switch mounting surface | Surfaces with auto switch mounting slot | Auto switch mounting rail side only | A/B/C side except port side | Surfaces with auto switch mounting slot | | | | | | | | |
| | | | | | | | | | | | | |
| Mounting of auto switch | <p>Auto switch mounting screw</p> <p>Auto switch</p> <p>• When tightening the auto switch mounting screw, use a watchmakers' screwdriver with a handle 5 to 6 mm in diameter.</p> <p>Tightening torque for auto switch mounting screw (N·m)</p> <table border="1"> <thead> <tr> <th>Auto switch model</th> <th>Tightening torque</th> </tr> </thead> <tbody> <tr> <td>D-M9□(V)</td> <td rowspan="3">0.05 to 0.15</td> </tr> <tr> <td>D-M9□W(V)</td> </tr> <tr> <td>D-M9□A(V)</td> </tr> <tr> <td>D-A9□(V)</td> <td>0.10 to 0.20</td> </tr> </tbody> </table> | Auto switch model | Tightening torque | D-M9□(V) | 0.05 to 0.15 | D-M9□W(V) | D-M9□A(V) | D-A9□(V) | 0.10 to 0.20 | <ol style="list-style-type: none"> Insert the nut into the auto switch mounting slot on the cylinder tube, and place it in the roughly estimated setting position. Engage the ridge on the auto switch mounting arm with the recess in the cylinder tube rail, and slide it to the position of the nut. Gently screw the auto switch mounting screw into the thread of the auto switch mounting nut through the mounting hole on the auto switch mounting arm. Confirm where the mounting position is, and tighten the auto switch mounting screw to fix the auto switch. The tightening torque of the M2.5 screw must be 0.25 to 0.35 N·m. The detection position can be changed under the conditions in step ③. <p>Auto switch mounting screw (M2.5 x 0.45 x 8L)</p> <p>Auto switch</p> <p>Auto switch mounting nut</p> | <ol style="list-style-type: none"> Insert the nut into the auto switch mounting slot on the cylinder tube, and place it in the roughly estimated setting position. With the lower tapered part of the auto switch spacer facing the outside of the cylinder tube, line up the M2.5 through hole with the M2.5 female thread of the auto switch mounting nut. Gently screw the auto switch mounting nut fixing screw (M2.5) into the thread of the auto switch mounting nut through the mounting hole. Engage the ridge on the auto switch mounting arm with the recess in the auto switch spacer. Tighten the auto switch mounting screw (M3) to fix the auto switch. The tightening torque of the M3 screw must be 0.35 to 0.45 N·m. Confirm where the mounting position is, and tighten the auto switch fixing screw (M2.5) to fix the auto switch mounting nut. The tightening torque of the M2.5 screw must be 0.25 to 0.35 N·m. The detection position can be changed under the conditions in step ⑤. <p>Auto switch mounting screw (M3 x 0.5 x 8L)</p> <p>Auto switch</p> <p>Auto switch fixing screw (M2.5 x 0.45 x 10L)</p> <p>Auto switch spacer</p> <p>Auto switch mounting nut</p> | <ol style="list-style-type: none"> Insert the mounting bracket into the mating groove of the cylinder tube. Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (M2.5 x 12 L)*. If the detecting position is changed, go back to step ①. <p>Note 1) Ensure that the auto switch is covered with the mating groove to protect the auto switch.</p> <p>Note 2) The tightening torque for the hexagon socket head cap screw (M2.5 x 12 L) is 0.2 to 0.3 N·m.</p> <p>Hexagon socket head cap screw (Included with auto switch) (M2.5 x 12 L)</p> |
| | Auto switch model | Tightening torque | | | | | | | | | | |
| D-M9□(V) | 0.05 to 0.15 | | | | | | | | | | | |
| D-M9□W(V) | | | | | | | | | | | | |
| D-M9□A(V) | | | | | | | | | | | | |
| D-A9□(V) | 0.10 to 0.20 | | | | | | | | | | | |

Note) Auto switch mounting bracket and auto switch are enclosed with the cylinder for shipment. For an environment that needs the water resistant auto switch, select the D-M9□A(V) type. Auto switch mounting bracket for the D-F7BA(V) type uses BQ4-012 and BQ5-032 normal specifications (metal screw).
 * The auto switches applicable to the CDQ2□R/□V (water resistant) is the D-M9□A(V) type.
 * The applicable auto switches for the CDQ2□□□-□S/□T (single acting) are those except for the D-P3DWA type.

- CUJ
- CU
- CQS
- CDQ2-Z**
- RQ
- CQM
- CQU
- MU-Z
- D-□
- X□
- Technical data

Auto Switch Mounting Brackets/Part No.

Applicable Cylinder Series: CDQ2

| Applicable auto switch | D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | D-F7□/F7□V/J79/J79C/F7□W J79W/F7□WV/D-F7BA/F7BAV F79F/F7NT/D-A7□/A80/A7□H A80H/A73C/A80C/A79W | D-P3DW | | | | | | | | | | |
|--|--|---|---|----------|-----------------------------|-----------|-----------------------------|-----------|-----------------------------|----------|-----------------------------|--|--|
| Bore size (mm) | ø32 to ø100 | | | | | | | | | | | | |
| Auto switch mounting bracket part no. | | BQ5-032 | BQ6-032S | | | | | | | | | | |
| Auto switch mounting bracket fitting parts lineup/Weight | | <ul style="list-style-type: none"> • Auto switch fixing screw (M2.5 x 10 L) • Auto switch mounting screw (M3 x 8 L) • Auto switch spacer • Auto switch mounting nut Weight: 3.5 g | <ul style="list-style-type: none"> • Hexagon socket head cap screw (M 2.5 x 6 L) • Auto switch mounting bracket (nut) Weight: 5 g | | | | | | | | | | |
| Auto switch mounting surface | Surfaces with auto switch mounting slot  | A/B/C side except port side  | Surfaces with auto switch mounting slot  | | | | | | | | | | |
| Mounting of auto switch |  <ul style="list-style-type: none"> • When tightening the auto switch mounting screw, use a watchmakers' screwdriver with a handle 5 to 6 mm in diameter. <p>Tightening torque for auto switch mounting screw lbf-ft (N-m)</p> <table border="1"> <thead> <tr> <th>Auto switch model</th> <th>Tightening torque</th> </tr> </thead> <tbody> <tr> <td>D-M9□(V)</td> <td>0.04 to 0.11 (0.05 to 0.15)</td> </tr> <tr> <td>D-M9□W(V)</td> <td>0.04 to 0.11 (0.05 to 0.15)</td> </tr> <tr> <td>D-M9□A(V)</td> <td>0.04 to 0.11 (0.05 to 0.15)</td> </tr> <tr> <td>D-A9□(V)</td> <td>0.07 to 0.15 (0.10 to 0.20)</td> </tr> </tbody> </table> | Auto switch model | Tightening torque | D-M9□(V) | 0.04 to 0.11 (0.05 to 0.15) | D-M9□W(V) | 0.04 to 0.11 (0.05 to 0.15) | D-M9□A(V) | 0.04 to 0.11 (0.05 to 0.15) | D-A9□(V) | 0.07 to 0.15 (0.10 to 0.20) | <ol style="list-style-type: none"> Insert the nut into the auto switch mounting slot on the cylinder tube, and place it in the roughly estimated setting position. With the lower tapered part of the auto switch spacer facing the outside of the cylinder tube, line up the M2.5 through hole with the M2.5 female thread of the auto switch mounting nut. Gently screw the auto switch mounting nut fixing screw (M2.5) into the thread of the auto switch mounting nut through the mounting hole. Engage the ridge on the auto switch mounting arm with the recess in the auto switch spacer. Tighten the auto switch mounting screw (M3) to fix the auto switch. The tightening torque of the M3 screw must be 0.26 to 0.33 lbf-ft (0.35 to 0.45 N-m). Confirm where the mounting position is, and tighten the auto switch fixing screw (M2.5) to fix the auto switch mounting nut. The tightening torque of the M2.5 screw must be 0.18 to 0.26 lbf-ft (0.25 to 0.35 N-m). The detection position can be changed under the conditions in step ⑤.  | <ol style="list-style-type: none"> Fix the auto switch and the auto switch mounting bracket temporarily by tightening the hexagon socket head cap screw (M2.5 x 9.5 L) attached to the auto switch 1 to 2 turns. Insert the temporarily tightened mounting bracket into the mating groove of the cylinder tube, and slide the auto switch onto the cylinder tube through the groove. To insert the auto switch onto the cylinder/actuator through the groove, first hold the back of the auto switch (lead wire side) and the back of the auto switch mounting bracket together. Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (M2.5 x 6 L, M2.5 x 9.5 L).* If the detecting position is changed, go back to step ②. <p>* The hexagon socket head cap screw (M2.5 x 6 L) is used to fix the mounting bracket and cylinder tube. This enables the replacement of the auto switch without adjusting the auto switch position.</p> <p>Note 1) Ensure that the auto switch is covered with the mating groove to protect the auto switch. Note 2) The tightening torque of the hexagon socket head cap screw (M2.5 x 6 L, M2.5 x 9.5 L) must be 0.15 to 0.22 lbf-ft (0.2 to 0.3 N-m). Note 3) Tighten the hexagon socket head cap screws evenly.</p>  |
| Auto switch model | Tightening torque | | | | | | | | | | | | |
| D-M9□(V) | 0.04 to 0.11 (0.05 to 0.15) | | | | | | | | | | | | |
| D-M9□W(V) | 0.04 to 0.11 (0.05 to 0.15) | | | | | | | | | | | | |
| D-M9□A(V) | 0.04 to 0.11 (0.05 to 0.15) | | | | | | | | | | | | |
| D-A9□(V) | 0.07 to 0.15 (0.10 to 0.20) | | | | | | | | | | | | |

Note) Auto switch mounting bracket and auto switch are enclosed with the cylinder for shipment. The auto switch mounting bracket for the D-F7BA(V) type uses the BQ5-032 with the normal specifications (iron screw).

Smooth Cylinders

CJ2Y-Z

CM2Y-Z

CG1Y-Z

MBY-Z

CA2Y-Z

CS2Y

CQS

CQ2Y-Z

CJ2X-Z

CM2X-Z

CQS

CQ2X

CUX

Auto Switch

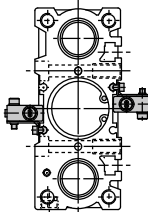
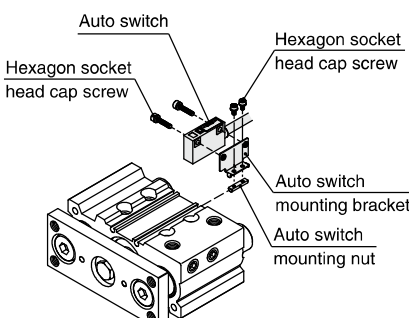
Made to Order

Series MGP

Auto Switch Mounting

Applicable Cylinder: MGP-Z (Basic type), MGP-AZ (Air cushion)

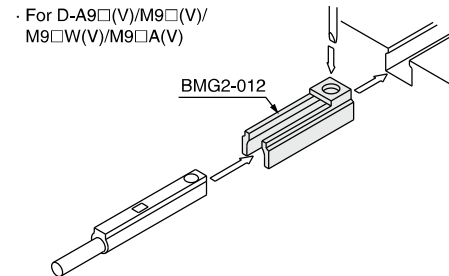
| Applicable auto switches | D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | D-P3DWA | | | | | | |
|------------------------------------|---|-------------------|-------------------|------------------------------------|--------------|----------|--------------|----------------|
| Bore size [mm] | ø12 to ø100 | ø25 to ø100 | | | | | | |
| Auto switch tightening torque | [N·m] <table border="1"> <thead> <tr> <th>Auto switch model</th> <th>Tightening torque</th> </tr> </thead> <tbody> <tr> <td>D-M9□(V) D-M9□W(V) D-M9□A(V)</td> <td>0.05 to 0.15</td> </tr> <tr> <td>D-A9□(V)</td> <td>0.10 to 0.20</td> </tr> </tbody> </table> | Auto switch model | Tightening torque | D-M9□(V) D-M9□W(V) D-M9□A(V) | 0.05 to 0.15 | D-A9□(V) | 0.10 to 0.20 | 0.2 to 0.3 N·m |
| Auto switch model | Tightening torque | | | | | | | |
| D-M9□(V) D-M9□W(V) D-M9□A(V) | 0.05 to 0.15 | | | | | | | |
| D-A9□(V) | 0.10 to 0.20 | | | | | | | |

| | |
|--|---|
| Applicable auto switches | D-P4DW |
| Bore size [mm] | ø32 to ø100 |
| Auto switch mounting bracket part no. | BMG7-032 |
| Auto switch mounting bracket/ Quantity | <ul style="list-style-type: none"> • Auto switch mounting bracket x 1 pc. • Auto switch mounting nut x 1 pc. • Hexagon socket head cap screw x 2 pcs. • Hexagon socket head cap screw x 2 pcs. (With spring washer x 2 pcs.) |
| Auto switch mounting surface |  |
| Mounting of auto switch | <ol style="list-style-type: none"> 1. Attach the auto switch to the auto switch mounting bracket with the hexagon socket head cap screw (M3 x 14 L). The tightening torque for the M3 hexagon socket head cap screw is 0.5 to 0.8 N·m. 2. Fix the auto switch mounting nut and the auto switch mounting bracket temporarily by tightening the hexagon socket head cap screw (M2.5 x 5 L). 3. Insert the temporarily fixed auto switch mounting bracket into the auto switch mounting groove, and slide the auto switch through the auto switch mounting groove. 4. Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (M2.5 x 5 L). The tightening torque for the M2.5 hexagon socket head cap screw is 0.2 to 0.3 N·m. 5. If the detecting position is changed, go back to step 3.  |

Applicable Cylinder: MGP (With end lock), MGPS (Heavy duty guide rod type)

| Auto switch model | Bore size [mm] | |
|--|----------------|-------------|
| | ø25 | ø32 to ø100 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | BMG2-012 | |
| D-P3DWA | BMG2-012 | |
| D-P4DW | — | BMG1-040 |

*: Cylinders with an end lock are available in ø20 to ø100.
 *: The heavy duty guide rod type is available in ø50 and ø80.



*: Auto switch mounting brackets and auto switches are enclosed with the cylinder for shipment.
 For an environment that needs the water-resistant auto switch, select the D-M9□A(V) type.

Auto Switch Mounting Brackets/Part No.

| Auto switch model | Bore size [mm] | | | | | | |
|---|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | ø32 | ø40 | ø50 | ø63 | ø80 | ø100 | ø125 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | BMB5-032 | BMB5-032 | BA7-040 | BA7-040 | BA7-063 | BA7-063 | BA7-080 |
| D-A3□/A44 D-G39/K39 | BMB2-032 | BMB2-040 | BMB1-050 | BMB1-063 | BMB1-080 | BMB1-100 | BS1-125 |
| D-F5□/J59 D-F5□W/J59W D-F59F/F5BA D-F5NT D-A5□/A6□/A59W | BT-03 | BT-03 | BT-05 | BT-05 | BT-06 | BT-06 | BT-08 |
| D-P3DWA | — | BA10-040S | BA10-050S | BA10-050S | BA10-063S | BA10-063S | BA10-080S |
| D-P3DW | BMB9-032S | — | — | — | — | — | — |
| D-P4DW | BMB3T-040 | BMB3T-040 | BMB3T-050 | BMB3T-050 | BMB3T-080 | BMB3T-080 | BAP2T-080 |
| D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA D-Z7□/Z80 | BMB4-032 | BMB4-032 | BMB4-050 | BMB4-050 | BA4-063 | BA4-063 | BA4-080 |

[Stainless Steel Mounting Screw]

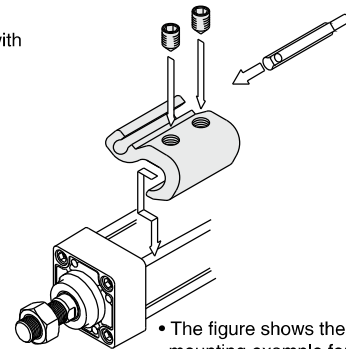
The following stainless steel mounting screw kit (including set screws) is available. Use it in accordance with the operating environment. (Since the auto switch mounting bracket is not included, order it separately.)

BBA1: For D-A5/A6/F5/J5 types

Note 1) Refer to the **WEB catalog** or the Best Pneumatics No. 2 for details on the BBA1.

The above stainless steel screws are used when a cylinder is shipped with the D-F5BA auto switch. When only one auto switch is shipped independently, the BBA1 is attached.

Note 2) When using the D-M9□A(V) or Y7BA, do not use the steel set screws which are included with the auto switch mounting brackets above (BMB5-032, BA7-□□□, BMB4-□□□, BA4-□□□). Order a stainless steel screw kit (BBA1) separately, and use the M4 x 6 L stainless steel set screws included in the BBA1.



• The figure shows the mounting example for the D-M9□(V)/M9□W(V)/M9□A(V)/A9□(V).

Operating Range

| Auto switch model | Bore size [mm] | | | | | | |
|---|----------------|-----|-----|-----|-----|------|-----|
| | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV | 4 | 4.5 | 4.5 | 4.5 | 5 | 6 | 7 |
| D-Y59□/Y69□ D-Y7P/Y7□V D-Y7□W/Y7□WV D-Y7BA | 5.5 | 5.5 | 7 | 7.5 | 6.5 | 5.5 | 7 |
| D-F5□/J59 D-F5□W/J59W D-F5BA/F5NT D-F59F | 3.5 | 4 | 4 | 4.5 | 4.5 | 4.5 | 5 |
| D-G39/K39 | 9 | 9 | 9 | 10 | 10 | 11 | 11 |
| D-P3DWA | — | 4.5 | 4.5 | 5 | 5 | 5.5 | 6.5 |
| D-P3DW | 4.5 | — | — | — | — | — | — |
| D-P4DW | 4 | 4 | 4 | 4.5 | 4 | 4.5 | 4.5 |
| D-A9□/A9□V | 7 | 7.5 | 8.5 | 9.5 | 9.5 | 10.5 | 12 |
| D-Z7□/Z80 | 7.5 | 8.5 | 7.5 | 9.5 | 9.5 | 10.5 | 13 |
| D-A5□/A6□ | 9 | 9 | 10 | 11 | 11 | 11 | 10 |
| D-A59W | 13 | 13 | 13 | 14 | 14 | 15 | 17 |
| D-A3□/A44 | 9 | 9 | 10 | 11 | 11 | 11 | 10 |

* Values which include hysteresis are for guideline purposes only, they are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

Standard

Double Acting, Single Rod

MB

Non-rotating Rod

Double Acting, Double Rod

MBW

Non-rotating Rod

Double Acting, Single Rod

MBK

Non-rotating Rod

Double Acting, Double Rod

MBKW

With End Lock

MBB

Low Friction

MB□Q

Auto Switch

Auto Switch

Made to Order

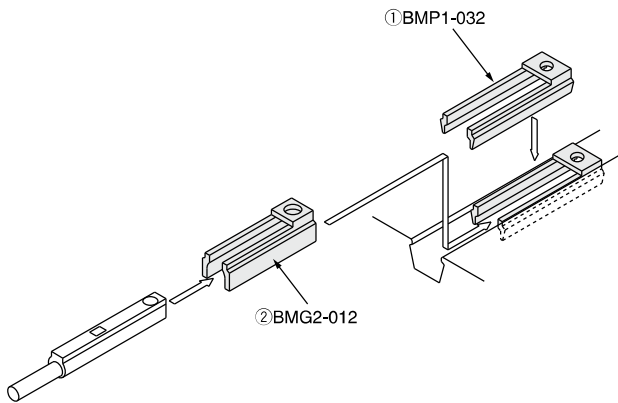
Made to Order

Auto Switch Mounting Brackets/Part No.

| Auto switch model | Bore size [mm] |
|---|-----------------------------------|
| | 32 to 125 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | Note) ① BMP1-032 ② BMG2-012 |
| D-Y5□/Y7P D-Y7□W D-Y6□/Y7PV D-Y7□WV D-Y7BA D-Z7□/Z80 | ① BMP1-032 |

Note) Two kinds of auto switch mounting brackets are used as a set.

D-M9□(V)/M9□W(V)/M9□A(V)/A9□(V)



Operating Range

| Auto switch model | Bore size [mm] | | | | | | |
|---|----------------|-----|----|----|-----|------|------|
| | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV | 4 | 4.5 | 5 | 6 | 6 | 6 | 7 |
| D-A9□/A9□V | 7 | 7.5 | 8 | 9 | 9.5 | 10.5 | 12.5 |
| D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA | 5 | 4.5 | 5 | 5 | 6.5 | 7 | 7 |
| D-Z7□/Z80 | 10 | 10 | 10 | 11 | 11 | 12 | 14 |

* Values which include hysteresis are for guideline purposes only, they are not a guarantee (assuming approximately ±30% dispersion) and may change substantially depending on the ambient environment.

Standard
Double Acting, Single Rod
MB1

Double Acting, Double Rod
MB1W

Non-rotating Rod
Double Acting, Single Rod
MB1K

Auto Switch

Made to Order

Other than the applicable auto switches listed in "How to Order", the following auto switches are mountable.

Refer to the **WEB catalog** or the Best Pneumatics No.2 for the detailed specifications.

| Type | Model | Electrical entry | Features |
|-------------|-----------------------|-------------------------|--|
| Solid state | D-Y69A, Y69B, Y7PV | Grommet (Perpendicular) | — |
| | D-Y7NWW, Y7PWV, Y7BWV | | Diagnostic indication (2-color indication) |
| | D-Y59A, Y59B, Y7P | Grommet (In-line) | — |
| | D-Y7NW, Y7PW, Y7BW | | Diagnostic indication (2-color indication) |
| | D-Y7BA | | Water resistant (2-color indication) |
| Reed | D-Z73, Z76 | Grommet (In-line) | — |
| | D-Z80 | | Without indicator light |

* With pre-wired connector is also available for solid state auto switches. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.
 * Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H/Y7G/Y7H) are also available. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.

Series MBY

Auto Switch Mounting Brackets/Part No.

| Auto switch model | Bore size (mm) | | | | | |
|---|----------------|-----------|-----------|-----------|-----------|-----------|
| | ø32 | ø40 | ø50 | ø63 | ø80 | ø100 |
| D-M9□W/M9□WV D-M9□A/M9□AV D-M9□/M9□V D-A9□/A9□V | BMB5-032 | BMB5-032 | BA7-040 | BA7-040 | BA7-063 | BA7-063 |
| D-A3□/A44 D-G39/K39 | BMB2-032 | BMB2-040 | BMB1-050 | BMB1-063 | BMB1-080 | BMB1-100 |
| D-A5□/A6□/A59W D-F5□/J59 D-F5□W/J59W D-F59F/F5BA D-F5NT | BT-03 | BT-03 | BT-05 | BT-05 | BT-06 | BT-06 |
| D-P3DWA | — | BA10-040S | BA10-050S | BA10-050S | BA10-063S | BA10-063S |
| D-P3DW | BMB9-032S | — | — | — | — | — |
| D-P4DW | BMB3T-040 | BMB3T-040 | BMB3T-050 | BMB3T-050 | BMB3T-080 | BMB3T-080 |
| D-Z7□/Z80 D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA | BMB4-032 | BMB4-032 | BMB4-050 | BMB4-050 | BA4-063 | BA4-063 |

[Stainless Steel Mounting Screw]

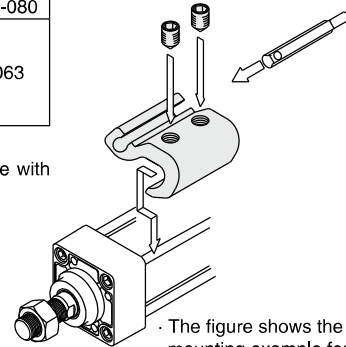
The following stainless steel mounting screw kit (including set screws) is available. Use it in accordance with the operating environment. (Since the auto switch mounting bracket is not included, order it separately.)

BBA1: For D-A5/A6/F5/J5 types

Note 1) Refer to the **WEB catalog** or Best Pneumatics No. 3 for details on the BBA1.

The above stainless steel screws are used when a cylinder is shipped with the D-F5BA auto switch. When only the auto switch is shipped independently, the BBA1 is attached.

Note 2) When using the D-M9□A(V) or Y7BA, do not use the steel set screws which are included with the auto switch mounting brackets above (BMB5-032, BA7-□□□, BMB4-□□□, BA4-□□□). Order a stainless steel screw kit (BBA1) separately, and use the M4 x 6 L stainless steel set screws included in the BBA1.



The figure shows the mounting example for the D-A9□(V)/M9□(V)/M9□W(V)/M9□A(V).

Other than the applicable auto switches listed in “How to Order”, the following auto switches are mountable.

Refer to the **WEB catalog** or Best Pneumatics No. 3 for the detailed specifications.

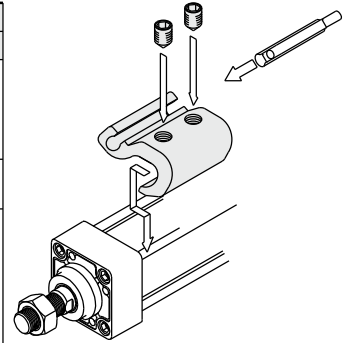
| Type | Model | Electrical entry | Features |
|-------------|---------------------|-------------------------|---|
| Reed | D-A93V/A96V | Grommet (Perpendicular) | — |
| | D-A90V | | Without indicator light |
| | D-B35 | Grommet (In-line) | — |
| | D-A53/A56/Z73/Z76 | | Without indicator light |
| | D-A67/Z80 | | Without indicator light |
| Solid state | D-M9NV/M9PV/M9BV | Grommet (Perpendicular) | — |
| | D-Y69A/Y69B/Y7PV | | Diagnostic indication (2-color indication) |
| | D-M9NWV/M9PWV/M9BWV | | Water resistant (2-color indication) |
| | D-Y7NWV/Y7PWV/Y7BWV | | Magnetic field resistant (2-color indication) |
| | D-M9NAV/M9PAV/M9BAV | | — |
| | D-P4DW | Grommet (In-line) | — |
| | D-F59/F5P/J59 | | Diagnostic indication (2-color indication) |
| | D-Y59A/Y59B/Y7P | | Water resistant (2-color indication) |
| | D-Y7H | | With timer |
| | D-F59W/F5PW/J59W | | Magnetic field resistant (2-color indication) |
| | D-Y7NW/Y7PW/Y7BW | | — |
| | D-F5BA/Y7BA | | — |
| | D-F5NT | | — |
| D-P5DW | — | | |

* With pre-wired connector is also available for solid state auto switches. For details, refer to the **WEB catalog** or Best Pneumatics No. 3.

* Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H/Y7G/Y7H) are also available. For details, refer to pages the **WEB catalog** or Best Pneumatics No. 3.

Auto Switch Mounting Bracket Part No.

| Auto switch model | Bore size (mm) | | | | | |
|---|----------------|-----------|-----------|-----------|-----------|-----------|
| | φ32 | φ40 | φ50 | φ63 | φ80 | φ100 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | BMB5-032 | BMB5-032 | BA7-040 | BA7-040 | BA7-063 | BA7-063 |
| D-A3□/A44 D-G39/K39 | BMB2-032 | BMB2-040 | BMB1-050 | BMB1-063 | BMB1-080 | BMB1-100 |
| D-A5□/A6□ D-A59W D-F5□/J59 D-F5□W/J59W D-F5□F D-F5BA D-F5NT | BT-03 | BT-03 | BT-05 | BT-05 | BT-06 | BT-06 |
| D-P3DWA | — | BA10-040S | BA10-050S | BA10-050S | BA10-063S | BA10-063S |
| D-P3DW | BMB9-032S | — | — | — | — | — |
| D-P4DW | BMB3T-040 | BMB3T-040 | BMB3T-050 | BMB3T-050 | BMB3T-080 | BMB3T-080 |
| D-Z7□/Z80 D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W D-Y7□WV D-Y7BA | BMB4-032 | BMB4-032 | BMB4-050 | BMB4-050 | BA4-063 | BA4-063 |



• The above figure shows the mounting example of D-A9□(V)/M9□(V)/M9□W(V)/M9□A(V).

CLJ2
CLM2
CLG1
CL1
MLGC
CNG
MNB
CNA2
CNS
CLS
CLQ
RLQ
MLU
MLGP
ML1C

[Mounting screws set made of stainless steel]

The following set of mounting screws made of stainless steel is also available. Use it in accordance with the operating environment. (Please order the auto switch mounting bracket separately, since it is not included.)

BBA1: For D-A5/A6/F5/J5 types

D-F5BA auto switch is set on the cylinder with the stainless steel screws above when shipped. When an auto switch is shipped independently, BBA1 is attached.

Note 1) Refer to page 1997 for the details of BBA1.

Note 2) When using D-M9□A(V)/Y7BA, do not use the steel set screws which is included with the auto switch mounting brackets above (BMB5-032, BA7-□□□, BMB4-□□□, BA4-□□□). Order a stainless steel screw set (BBA1) separately, and select and use the M4 x 6L stainless steel set screws included in the BBA1.

Besides the models listed in How to Order, the following auto switches are applicable.
For detailed specifications, refer to pages 1893 to 2007.

| Auto switch type | Model | Electrical entry (Fetching direction) | Features |
|------------------|-----------------------|---------------------------------------|---|
| Reed | D-A93V, A96V | Grommet (Perpendicular) | — |
| | D-A90V | | Without indicator light |
| | D-A53, A56, Z73, Z76 | Grommet (In-line) | — |
| | D-A67, Z80 | | Without indicator light |
| Solid state | D-M9NV, M9PV, M9BV | Grommet (Perpendicular) | — |
| | D-Y69A, Y69B, Y7PV | | — |
| | D-M9NWV, M9PWV, M9BWW | | Diagnostic indication (2-color indication) |
| | D-Y7NWV, Y7PWV, Y7BWW | | Water resistant (2-color indication) |
| | D-M9NAV, M9PAV, M9BAV | Grommet (In-line) | — |
| | D-F59, F5P, J59 | | — |
| | D-Y59A, Y59B, Y7P | | Diagnostic indication (2-color indication) |
| | D-F59W, F5PW, J59W | | Water resistant (2-color indication) |
| | D-Y7NW, Y7PW, Y7BW | | With timer |
| | D-F5BA, Y7BA | | Magnetic field resistant (2-color indication) |
| | D-F5NT | | — |
| | D-P5DW | | — |

* With pre-wired connector is available for solid state auto switches. For details, refer to pages 1960 and 1961.

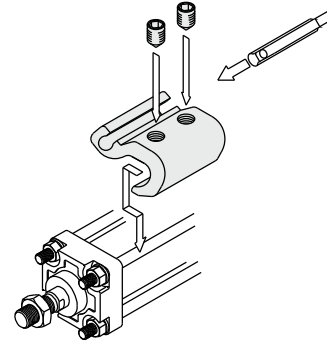
* Normally closed (NC = b contact), solid state auto switch (D-F9G/F9H/Y7G/Y7H type) are also available. For details, refer to pages 1911 and 1913.

D-□
-X□

Auto Switch Mounting Brackets/Part No.

<Tie-rod mounting>

| Auto switch model | Bore size (mm) | | | | |
|--|----------------|-----------|-----------|-----------|-----------|
| | 40 | 50 | 63 | 80 | 100 |
| D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV D-A9□/A9□V | BA7-040 | BA7-040 | BA7-063 | BA7-080 | BA7-080 |
| D-F5□/J59 D-F5□W/J59W D-F59F/F5NT D-A5□/A6□ D-A59W | BT-04 | BT-04 | BT-06 | BT-08 | BT-08 |
| D-G39C/K39C D-A3□C/A44C | BA3-040 | BA3-050 | BA3-063 | BA3-080 | BA3-100 |
| D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA D-Z7□/Z80 | BA4-040 | BA4-040 | BA4-063 | BA4-080 | BA4-080 |
| D-P3DW | BMB9-050S | BMB9-050S | BA9T-063S | BA9T-080S | BA9T-080S |
| D-P4DW | BAP2-040 | BAP2-040 | BAP2-063 | BAP2-080 | BAP2-080 |



* The figure shows the mounting example for the D-M9□(V)/M9□W(V)/M9□A(V)/A9□(V) types.

<Band mounting>

Except air-hydro type

| Auto switch model | Bore size (mm) | | | | |
|---|----------------|---------|----------|----------|----------|
| | 40 | 50 | 63 | 80 | 100 |
| D-G39/K39 D-A3□/A44 | BDS-04M | BDS-05M | BMB1-063 | BMB1-080 | BMB1-100 |
| D-G5□/K59 D-G5□W/K59W D-G59F D-G5NT D-G5NB D-B5□/B64 D-B59W | BH2-040 | BA5-050 | BAF-06 | BAF-08 | BAF-10 |

Air-hydro type

| Auto switch model | Bore size (mm) | | | | |
|---|----------------|---------|---------|---------|---------|
| | 40 | 50 | 63 | 80 | 100 |
| D-G39/K39 D-A3□/A44 | BD1-04M | BD1-05M | BD1-06M | BD1-08M | BD1-10M |
| D-G5□/K59 D-G5□W/K59W D-G59F D-G5NT D-G5NB D-B5□/B64 D-B59W | BA-04 | BA-05 | BA-06 | BA-08 | BA-10 |

Note 1) Auto switch brackets are included in the D-A3□C/A44C/G39C/K39C types. Specify the part number as follows depending on the cylinder size when ordering.
(Example) ø40: D-A3□C-4, ø50: D-A3□C-5, ø63: D-A3□C-6, ø80: D-A3□C-8, ø100: D-A3□C-10

[Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit (including set screws) is also available. Use it in accordance with the operating environment.
(Since the auto switch mounting bracket and band are not included, order them separately.)

BBA1: For D-A5/A6/F5/J5 types
BBA3: For D-B5/B6/G5/K5 types

Note 2) Refer to the **WEB catalog** or the Best Pneumatics No. 2 for details on the BBA1 and BBA3.

The above stainless steel screws are used when a cylinder is shipped with D-F5BA or G5BA auto switches. When only an auto switch is shipped independently, the BBA1 or BBA3 is attached.

Note 3) When using the D-M9□A(V) or Y7BA, do not use the steel set screws which are included with the above auto switch mounting brackets (BA7-□□□, BA4-□□□). Order a stainless steel screw kit (BBA1) separately, and use the M4 x 6 L stainless steel set screws included in the BBA1.

Note 4) There is a difference in the cylinder tube thickness depending on the cylinder model. Use caution when a band mounting type is used as an applicable auto switch and a cylinder model is changed.

Other than the applicable auto switches listed in "How to Order", the following auto switches are mountable.

Refer to the **WEB catalog** or the Best Pneumatics No. 2 for the detailed specifications.

| Type | Model | Electrical entry | Features |
|-------------|-------------------------|-------------------------|---|
| Solid state | D-M9NV/M9PV/M9BV | Grommet (Perpendicular) | — |
| | D-Y69A/Y69B/Y7PV | | Diagnostic indication (2-color indication) |
| | D-M9NWV/M9PWV/M9BWV | | Water resistant (2-color indication) |
| | D-Y7NWV/Y7PWV/Y7BWV | | — |
| | D-M9NAV/M9PAV/M9BAV | | — |
| | D-Y59A/Y59B/Y7P | Grommet (In-line) | Diagnostic indication (2-color indication) |
| | D-F59/F5P/J59 | | Water resistant (2-color indication) |
| | D-Y7NW/Y7PW/Y7BW | | With timer |
| | D-F59W/F5PW/J59W | | Magnetic field resistant (2-color indication) |
| | D-F5BA/Y7BA | | — |
| D-F5NT/G5NT | Grommet (Perpendicular) | Without indicator light | |
| D-P5DW | | — | |
| D-A93V/A96V | | Without indicator light | |
| Reed | D-A90V | Grommet (In-line) | — |
| | D-A53/A56/B53/Z73/Z76 | | — |
| | D-A67/Z80 | | Without indicator light |

* With pre-wired connector is also available for solid state auto switches. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.

* Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H/Y7G/Y7H) are also available. For details, refer to the **WEB catalog** or the Best Pneumatics No. 2.

Standard
Double Acting, Single Rod
CA2

Double Acting, Double Rod
CA2W

Non-rotating Rod
Double Acting, Single Rod
CA2K

Double Acting, Double Rod
CA2KW

With End Lock
CBA2

Air-hydro
Double Acting, Single Rod
CA2H

Double Acting, Double Rod
CA2WH

Low Friction
CA2Q

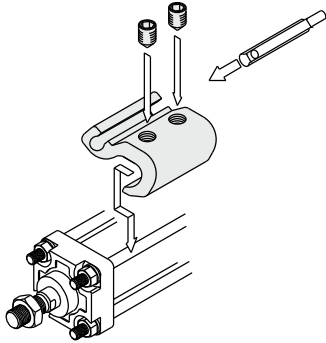
Auto Switch

Made to Order

Auto Switch Mounting Brackets/Part No.

<Tie-rod mounting>

| Auto switch model | Bore size (mm) | | | | |
|--|----------------|-----------|-----------|-----------|-----------|
| | 40 | 50 | 63 | 80 | 100 |
| D-A9□/A9□V D-M9□/M9□V D-M9□W/M9□WV D-M9□A/M9□AV | BA7-040 | BA7-040 | BA7-063 | BA7-080 | BA7-080 |
| D-A5□/A6□ D-A59W D-F5□/J5□ D-F5□W/J59W D-F59F/F5NT | BT-04 | BT-04 | BT-06 | BT-08 | BT-08 |
| D-A3□C/A44C D-G39C/K39C | BA3-040 | BA3-050 | BA3-063 | BA3-080 | BA3-100 |
| D-Z7□/Z80 D-Y59□/Y69□ D-Y7P/Y7PV D-Y7□W/Y7□WV D-Y7BA | BA4-040 | BA4-040 | BA4-063 | BA4-080 | BA4-080 |
| D-P3DW | BMB9-050S | BMB9-050S | BA9T-063S | BA9T-080S | BA9T-080S |
| D-P4DW | BAP2-040 | BAP2-040 | BAP2-063 | BAP2-080 | BAP2-080 |



* The figure shows the mounting example for the D-A9□(V)/M9□(V)/M9□W(V)/M9□A(V)L types.

<Band mounting>

| Auto switch model | Bore size (mm) | | | | |
|---|----------------|---------|----------|----------|----------|
| | 40 | 50 | 63 | 80 | 100 |
| D-A3□/A44 D-G39/K39 | BDS-04M | BDS-05M | BMB1-063 | BMB1-080 | BMB1-100 |
| D-B5□/B64 D-B59W D-G5□/K59 D-G5□W/K59W D-G59F D-G5NT D-G5NB | BH2-040 | BA5-050 | BAF-06 | BAF-08 | BAF-10 |

Note 1) The auto switch mounting bracket is included in the D-A3□C/A44C/G39C/K39C types. Specify the part number as follows depending on the cylinder size when ordering.
(Example) ø40: D-A3□C-4, ø50: D-A3□C-5, ø63: D-A3□C-6, ø80: D-A3□C-8, ø100: D-A3□C-10

[Stainless Steel Mounting Screw]

The following stainless steel mounting screw kit (including set screws) is also available. Use it in accordance with the operating environment.
(Since the auto switch mounting bracket is not included, order it separately.)

BBA1: For D-A5/A6/F5/J5 types

BBA3: For D-B5/B6/G5/K5 types

Note 2) Refer to the **WEB catalog** or Best Pneumatics No. 3 for details on the BBA1 and BBA3.

The above stainless steel screws are used when a cylinder is shipped with D-F5BA or G5BA auto switches. When only an auto switch is shipped independently, the BBA1 or BBA3 is attached.

Note 3) When using the D-M9□A(V) or Y7BA, do not use the steel set screws which are included with the auto switch mounting brackets above (BA7-□□□, BA4-□□□). Order a stainless steel screw kit (BBA1) separately, and use the M4 x 6L stainless steel set screws included in the BBA1.

Note 4) There is a difference in the cylinder tube thickness depending on the cylinder model. When a band mounting type is used as an applicable auto switch and a cylinder model is changed, use caution.

Other than the applicable auto switches listed in "How to Order", the following auto switches are mountable.

Refer to the **WEB catalog** or Best Pneumatics No. 3 for the detailed specifications.

| Type | Model | Electrical entry | Features |
|-------------|-----------------------|-------------------------|--|
| Reed | D-A93V/A96V | Grommet (Perpendicular) | — |
| | D-A90V | | Without indicator light |
| | D-A53/A56/B53/Z73/Z76 | Grommet (In-line) | — |
| | D-A67/Z80 | | Without indicator light |
| Solid state | D-M9NV/M9PV/M9BV | Grommet (Perpendicular) | — |
| | D-Y69A/Y69B/Y7PV | | — |
| | D-M9NWV/M9PWV/M9BWV | | Diagnostic indication (2-color indication) |
| | D-Y7NWV/Y7PWV/Y7BWV | | Water resistant (2-color) |
| | D-M9NAV/M9PAV/M9BAV | | — |
| | D-Y59A/Y59B/Y7P | Grommet (In-line) | — |
| | D-F59/F5P/J59 | | Diagnostic indication (2-color indication) |
| | D-Y7NW/Y7PW/Y7BW | | Water resistant (2-color) |
| | D-F59W/F5PW/J59W | | With timer |
| | D-F5BA/Y7BA | | Magnetic field resistant (2-color) |
| | D-F5NT/G5NT | | — |
| D-P5DW | — | | |

* With pre-wired connector is also available for solid state auto switches. For details, refer to the **WEB catalog** or Best Pneumatics No. 3.

* Normally closed (NC = b contact) solid state auto switches (D-F9G/F9H/Y7G/Y7H) are also available. For details, refer to the **WEB catalog** or Best Pneumatics No. 3.

* Wide range detection type, solid state auto switch (D-G5NBL) is also available. For details, refer to the **WEB catalog** or Best Pneumatics No. 3.

CJ2Y-Z
 CM2Y-Z
 CG1Y-Z
 MBY-Z
 CA2Y-Z
 CS2Y
 CQSY
 CQ2Y-Z
 CJ2X-Z
 CM2X-Z
 CQSX
 CQ2X
 CUX
 Auto Switch
 Made to Order