







# ø30 XN Series Emergency Stop Switches



## Plastic Bezel

### Non-illuminated Pushlock Pull/Turn Reset (Solder Terminal)

Shape	NC Main Contact	NO Monitor Contact	Part No.		①Operator Color Code
			IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom  	1NC	—	<b>XN1E-BV401MF</b> ①	<b>XN1E-BV401M</b> ①	R: Red RH: Bright red
	2NC	—	<b>XN1E-BV402MF</b> ①	<b>XN1E-BV402M</b> ①	
	3NC	—	<b>XN1E-BV403MF</b> ①	<b>XN1E-BV403M</b> ①	
	4NC	—	<b>XN1E-BV404MF</b> ①	<b>XN1E-BV404M</b> ①	
	1NC	1NO	<b>XN1E-BV411MF</b> ①	<b>XN1E-BV411M</b> ①	
	2NC	1NO	<b>XN1E-BV412MF</b> ①	<b>XN1E-BV412M</b> ①	
	3NC	1NO	<b>XN1E-BV413MF</b> ①	<b>XN1E-BV413M</b> ①	
	2NC	2NO	<b>XN1E-BV422MF</b> ①	<b>XN1E-BV422M</b> ①	
ø60mm Jumbo Mushroom  	1NC	—	<b>XN1E-BV501MF</b> ①	<b>XN1E-BV501M</b> ①	
	2NC	—	<b>XN1E-BV502MF</b> ①	<b>XN1E-BV502M</b> ①	
	3NC	—	<b>XN1E-BV503MF</b> ①	<b>XN1E-BV503M</b> ①	
	4NC	—	<b>XN1E-BV504MF</b> ①	<b>XN1E-BV504M</b> ①	
	1NC	1NO	<b>XN1E-BV511MF</b> ①	<b>XN1E-BV511M</b> ①	
	2NC	1NO	<b>XN1E-BV512MF</b> ①	<b>XN1E-BV512M</b> ①	
	3NC	1NO	<b>XN1E-BV513MF</b> ①	<b>XN1E-BV513M</b> ①	
	2NC	2NO	<b>XN1E-BV522MF</b> ①	<b>XN1E-BV522M</b> ①	



- Specify a color code in place of ① in the Part No.
- Only solid wires can be used on the IP20 fingersafe terminal switches.

### Illuminated Pushlock Pull/Turn Reset (Solder Terminal)

Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom  	LED	24V AC/DC	1NC	—	<b>XN1E-LV401Q4MFR</b>	<b>XN1E-LV401Q4MR</b>	Red only
			2NC	—	<b>XN1E-LV402Q4MFR</b>	<b>XN1E-LV402Q4MR</b>	
			3NC	—	<b>XN1E-LV403Q4MFR</b>	<b>XN1E-LV403Q4MR</b>	
			4NC	—	<b>XN1E-LV404Q4MFR</b>	<b>XN1E-LV404Q4MR</b>	
			1NC	1NO	<b>XN1E-LV411Q4MFR</b>	<b>XN1E-LV411Q4MR</b>	
			2NC	1NO	<b>XN1E-LV412Q4MFR</b>	<b>XN1E-LV412Q4MR</b>	
			3NC	1NO	<b>XN1E-LV413Q4MFR</b>	<b>XN1E-LV413Q4MR</b>	
			2NC	2NO	<b>XN1E-LV422Q4MFR</b>	<b>XN1E-LV422Q4MR</b>	

- Only solid wires can be used on the IP20 fingersafe terminal switches.

### Illuminated Push-ON Pushlock Pull/Turn Reset (Solder Terminal)




Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom  	LED	24V AC/DC	2NC	—	<b>XN1E-TV402Q4MFR</b>	<b>XN1E-TV402Q4MR</b>	Red only
			3NC	—	<b>XN1E-TV403Q4MFR</b>	<b>XN1E-TV403Q4MR</b>	
			2NC	1NO	<b>XN1E-TV412Q4MFR</b>	<b>XN1E-TV412Q4MR</b>	

- Push-ON is illuminated when the operator is latched, and turns off when reset.
- Only solid wires can be used on the IP20 fingersafe terminal switches.

# XN series Emergency Stop Switches ø30




## Flush Bezel

### Non-illuminated Pushlock Pull/Turn Reset (Solder Terminal)

Shape	NC Main Contact	NO Monitor Contact	Part No.		Operator Color Code
			IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom   	1NC	—	<b>XN5E-BV401MF</b> ①	<b>XN5E-BV401M</b> ①	R: Red RH: Bright red
	2NC	—	<b>XN5E-BV402MF</b> ①	<b>XN5E-BV402M</b> ①	
	3NC	—	<b>XN5E-BV403MF</b> ①	<b>XN5E-BV403M</b> ①	
	4NC	—	<b>XN5E-BV404MF</b> ①	<b>XN5E-BV404M</b> ①	
	1NC	1NO	<b>XN5E-BV411MF</b> ①	<b>XN5E-BV411M</b> ①	
	2NC	1NO	<b>XN5E-BV412MF</b> ①	<b>XN5E-BV412M</b> ①	
	3NC	1NO	<b>XN5E-BV413MF</b> ①	<b>XN5E-BV413M</b> ①	
	2NC	2NO	<b>XN5E-BV422MF</b> ①	<b>XN5E-BV422M</b> ①	




- Specify a color code in place of ① in the Part No.
- Only solid wires can be used on the IP20 fingersafe terminal switches.

### Illuminated Pushlock Pull/Turn Reset (Solder Terminal)

Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom   	LED	24V AC/DC	1NC	—	<b>XN5E-LV401Q4MFR</b>	<b>XN5E-LV401Q4MR</b>	Red only
			2NC	—	<b>XN5E-LV402Q4MFR</b>	<b>XN5E-LV402Q4MR</b>	
			3NC	—	<b>XN5E-LV403Q4MFR</b>	<b>XN5E-LV403Q4MR</b>	
			4NC	—	<b>XN5E-LV404Q4MFR</b>	<b>XN5E-LV404Q4MR</b>	
			1NC	1NO	<b>XN5E-LV411Q4MFR</b>	<b>XN5E-LV411Q4MR</b>	
			2NC	1NO	<b>XN5E-LV412Q4MFR</b>	<b>XN5E-LV412Q4MR</b>	
			3NC	1NO	<b>XN5E-LV413Q4MFR</b>	<b>XN5E-LV413Q4MR</b>	
			2NC	2NO	<b>XN5E-LV422Q4MFR</b>	<b>XN5E-LV422Q4MR</b>	

- Only solid wires can be used on the IP20 fingersafe terminal switches.

### Illuminated Push-ON Pushlock Pull/Turn Reset (Solder Terminal)




Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø40mm Mushroom   	LED	24V AC/DC	2NC	—	<b>XN5E-TV402Q4MFR</b>	<b>XN5E-TV402Q4MR</b>	Red only
			3NC	—	<b>XN5E-TV403Q4MFR</b>	<b>XN5E-TV403Q4MR</b>	
			2NC	1NO	<b>XN5E-TV412Q4MFR</b>	<b>XN5E-TV412Q4MR</b>	

- Push-ON is illuminated when the operator is latched, and turns off when reset.
- Only solid wires can be used on the IP20 fingersafe terminal switches.

## ø30 XN Series Emergency Stop Switches




### Padlockable

#### Non-illuminated Pushlock Turn Reset (Padlockable)

Shape	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
			IP20 Fingersafe Terminal	w/Terminal Cover	
ø44mm Mushroom   	1NC	—	<b>XN4E-BL401MFRH</b>	<b>XN4E-BL401MRH</b>	Bright red only
	2NC	—	<b>XN4E-BL402MFRH</b>	<b>XN4E-BL402MRH</b>	
	3NC	—	<b>XN4E-BL403MFRH</b>	<b>XN4E-BL403MRH</b>	
	4NC	—	<b>XN4E-BL404MFRH</b>	<b>XN4E-BL404MRH</b>	
	1NC	1NO	<b>XN4E-BL411MFRH</b>	<b>XN4E-BL411MRH</b>	
	2NC	1NO	<b>XN4E-BL412MFRH</b>	<b>XN4E-BL412MRH</b>	
	3NC	1NO	<b>XN4E-BL413MFRH</b>	<b>XN4E-BL413MRH</b>	
	2NC	2NO	<b>XN4E-BL422MFRH</b>	<b>XN4E-BL422MRH</b>	




- Only solid wires can be used on the IP20 fingersafe terminal switches.
- Padlocks and hasps are not supplied with the emergency stop switches and must be ordered separately. See page 53.

#### Illuminated Pushlock Turn Reset (Padlockable)

Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø44mm Mushroom   	LED	24V AC/DC	1NC	—	<b>XN4E-LL401Q4MFR</b>	<b>XN4E-LL401Q4MR</b>	Red only
			2NC	—	<b>XN4E-LL402Q4MFR</b>	<b>XN4E-LL402Q4MR</b>	
			3NC	—	<b>XN4E-LL403Q4MFR</b>	<b>XN4E-LL403Q4MR</b>	
			4NC	—	<b>XN4E-LL404Q4MFR</b>	<b>XN4E-LL404Q4MR</b>	
			1NC	1NO	<b>XN4E-LL411Q4MFR</b>	<b>XN4E-LL411Q4MR</b>	
			2NC	1NO	<b>XN4E-LL412Q4MFR</b>	<b>XN4E-LL412Q4MR</b>	
			3NC	1NO	<b>XN4E-LL413Q4MFR</b>	<b>XN4E-LL413Q4MR</b>	
			2NC	2NO	<b>XN4E-LL422Q4MFR</b>	<b>XN4E-LL422Q4MR</b>	

- Only solid wires can be used on the IP20 fingersafe terminal switches.
- Padlocks and hasps are not supplied with the emergency stop switches and must be ordered separately. See page 53.

#### LED Push-ON Pushlock Turn Reset (Padlockable)

Shape	Illumination	Rated Voltage	NC Main Contact	NO Monitor Contact	Part No.		Operator Color
					IP20 Fingersafe Terminal	w/Terminal Cover	
ø44mm Mushroom   	LED	24V AC/DC	2NC	—	<b>XN4E-TL402Q4MFR</b>	<b>XN4E-TL402Q4MR</b>	Red only
			3NC	—	<b>XN4E-TL403Q4MFR</b>	<b>XN4E-TL403Q4MR</b>	
			2NC	1NO	<b>XN4E-TL412Q4MFR</b>	<b>XN4E-TL412Q4MR</b>	

- Push-ON is illuminated when the operator is latched, and turns off when reset.
- Only solid wires can be used on the IP20 fingersafe terminal switches.
- Padlocks and hasps are not supplied with the emergency stop switches and must be ordered separately. See page 53.

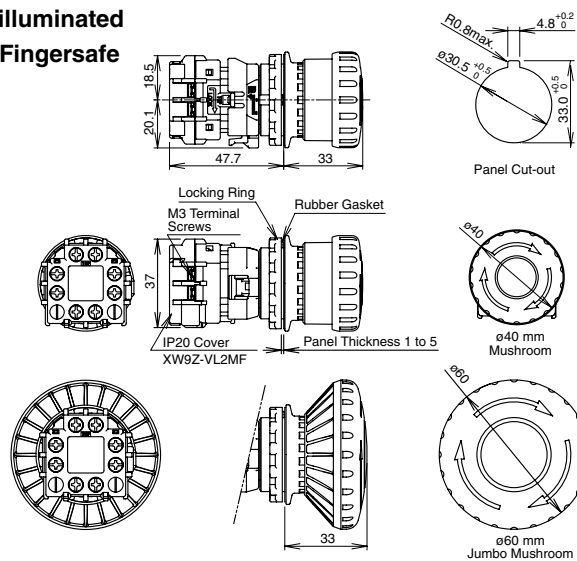
# XN Series Emergency Stop Switches ø30

## Dimensions

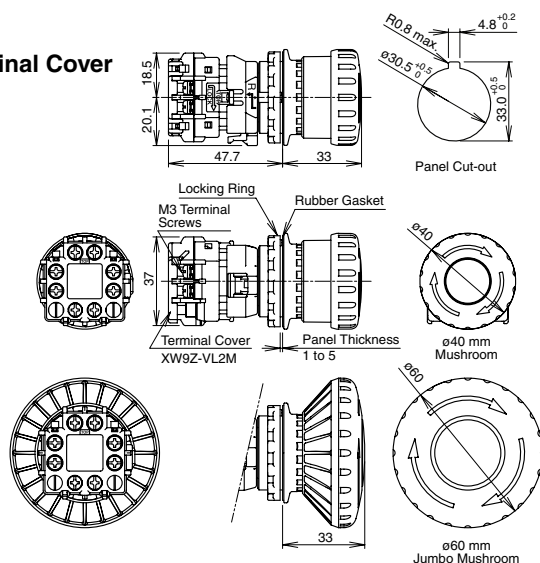
### Plastic Bezel

#### Non-illuminated

##### IP20 Fingersafe

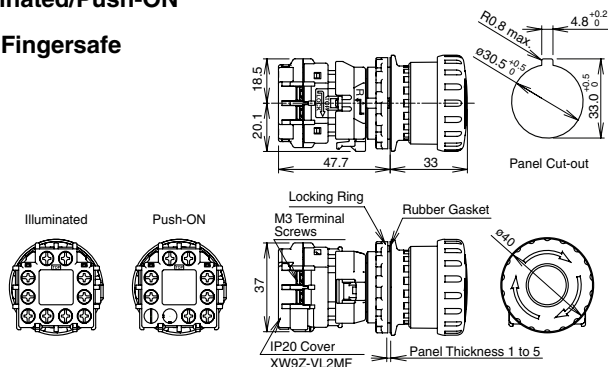


##### w/Terminal Cover

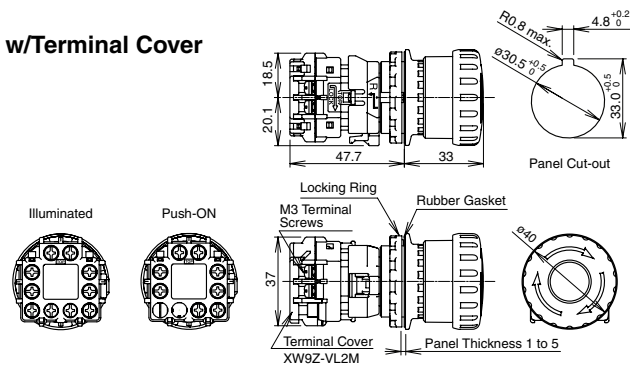


### Illuminated/Push-ON

#### IP20 Fingersafe



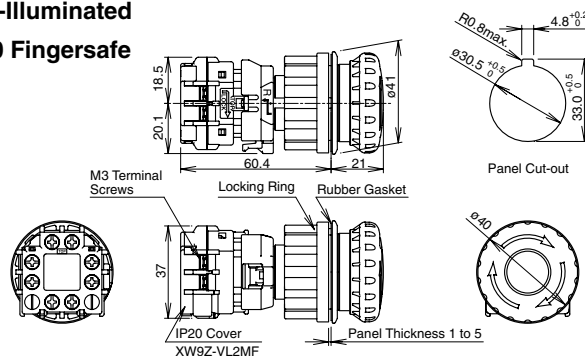
##### w/Terminal Cover



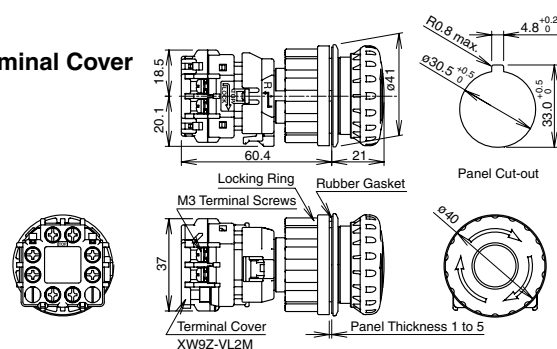
### Flush Bezel

#### Non-Illuminated

##### IP20 Fingersafe

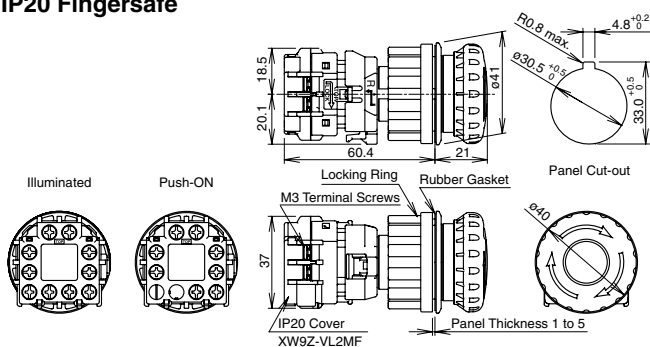


##### w/Terminal Cover

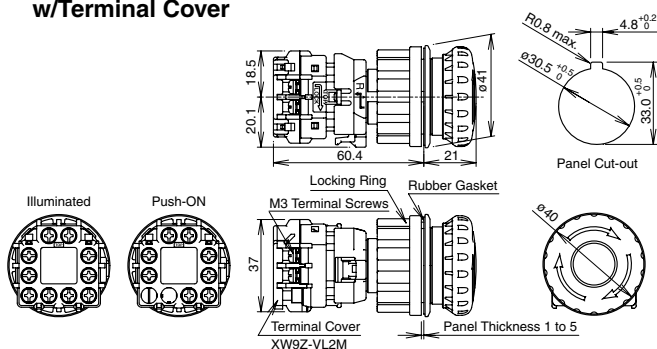


### Illuminated/Push-ON

#### IP20 Fingersafe



##### w/Terminal Cover






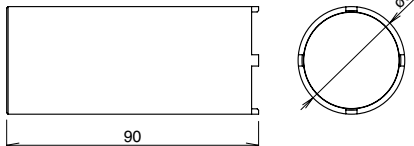

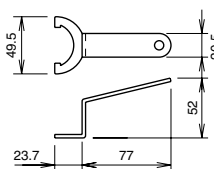
All dimensions in mm.





# XN series Emergency Stop Switches ø30

## Accessories and Replacement Parts

Name & Shape	Material	Part No.	Ordering No.	Package Quantity	Remarks
Terminal Cover 	PPE	XW9Z-VL2M	XW9Z-VL2MPN02	2	<ul style="list-style-type: none"> <li>Black</li> <li>Used for screw terminals.</li> <li>Attached to IP20 protection cover units.</li> </ul>
IP20 Fingersafe Terminal Cover 	Polyamide	XW9Z-VL2MF	XW9Z-VL2MFPN02	2	<ul style="list-style-type: none"> <li>Black</li> <li>Used to change terminal cover to IP20 fingersafe terminal.</li> <li>Only solid wires can be used. Once installed, IP20 terminal cover cannot be removed.</li> </ul>
Ring Wrench 	Brass	XN9Z-T1	XN9Z-T1	1	<ul style="list-style-type: none"> <li>Used to tighten the locking ring when installing the XN emergency stop switch onto a panel.</li> </ul> 
Ring Wrench 	Steel Trivalent chromate plating	TWST-T1	TWST-T1	1	<ul style="list-style-type: none"> <li>Used to tighten the locking ring when installing the XN emergency stop switch onto a panel.</li> </ul> 

- The XN series emergency stop switches are supplied with either terminal cover or IP20 fingersafe terminal cover.
- Padlocks and hasps are not supplied and must be ordered separately.

## Nameplates (for ø30 Emergency Stop Switches)


Description & Shape	Legend	Part No.	Package Quantity	Dimensions (mm)
	(blank)	HNAV-0	1	Polyamide Mounting panel thickness XN4E-□L4: 1.0 to 4.5 mm XN□E-□V4: 1.0 to 3.5 mm
	EMERGENCY STOP	HNAV-27		

Plate color: Yellow (Munsell 2.5Y 8/10 or equivalent),  
Legend: Black

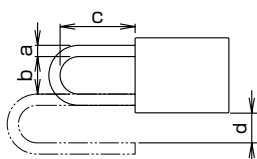
## Padlock and Hasp

Padlocks and hasps of the following specifications can be used with padlockable emergency stop switches.

### Padlock Size

a	b	c	d
7 mm maximum	19 mm minimum	39 mm minimum	15 mm minimum (Note)

Note: When the padlock is installed from the side of the bezel, dimension d requires a minimum of 6 mm. When the padlock is installed from the front of the button, dimension d requires a minimum of 15 mm.



### Recommended Hasp

Maker	Part No.
PANDUIT CORP.	PSL-HD3 PSL-1A
Master Lock® Company LLC	420, 421

Use only padlocks or hasps that satisfy the specifications shown on the left. The maximum total weight for padlocks and hasps is 1500g.

Make sure that the total weight does not exceed 1500g, otherwise the XN emergency stop switch may be damaged. Make sure that locking and unlocking of the padlock and hasp do not interfere with other devices.

Padlocks and hasps are available from the following manufacturers.

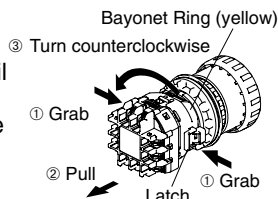
Manufacturer	URL
PANDUIT CORP.	<a href="http://www.panduit.com/">http://www.panduit.com/</a>
Master Lock® Company LLC	<a href="http://www.masterlock.com/">http://www.masterlock.com/</a>

## Operating Instructions

### Removing the Contact Block

First unlock the operator button.

Grab the yellow bayonet ring ① and pull back the bayonet ring until the latch pin clicks ②, then turn the contact block counterclockwise and pull out ③.

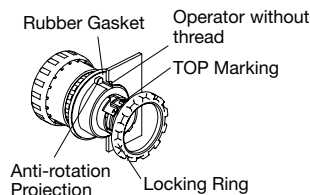


#### Notes for removing the contact block

1. Do not attempt to remove the contact block while the operator is latched, otherwise the switch may be damaged.
2. When the contact block is removed, the monitor contact (NO contact) is closed.
3. While removing the contact block, do not use excessive force, otherwise the switch may be damaged.
4. An LED lamp is built into the contact block for illuminated pushbuttons. When removing the contact block, pull the contact block straight to prevent damage to the LED lamp. If excessive force is used, the LED lamp may be damaged and fail to light.

### Panel Mounting

Remove the locking ring from the operator and check that the rubber gasket is in place. Insert the operator from panel front into the panel hole. Face the side without thread on the operator with TOP marking upward, and tighten the locking ring using ring wrench XN9Z-T1 or TWST-T1 to a torque of 2.5 N·m maximum.



#### When using a nameplate

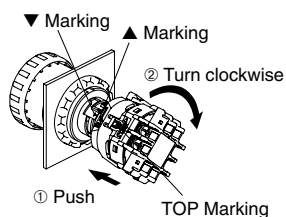
When using a nameplate HNAV-□, break the projection from the nameplate using pliers.



### Installing the Contact Block

First unlock the operator button.

Align the small ▼ marking on the edge of the operator with the small ▲ marking on the yellow bayonet ring. Hold the contact block, not the bayonet ring. Press the contact block onto the operator and turn the contact block clockwise until the bayonet ring clicks.



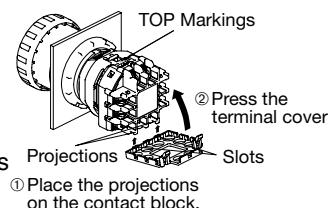
#### Notes for installing the contact block

1. Do not attempt to install the contact block when the operator is latched, otherwise the switch may be damaged.
2. Make sure that the bayonet ring is in the locked position.

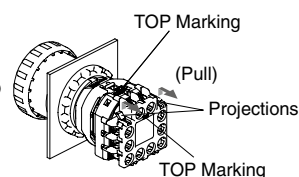
### Installing & Removing Terminal Covers

#### XW9Z-VL2M

To install the terminal cover, align the TOP marking on the terminal cover with the TOP marking on the contact block. Place the two projections on the bottom side of the contact block into the slots in the terminal cover. Press the terminal cover toward the contact block.

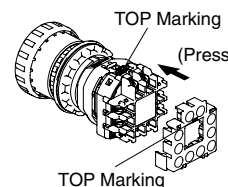


To remove the terminal cover, pull out the two latches on the top side of the terminal cover. Do not exert excessive force to the latches, otherwise the latches may break.



#### IP20 Fingersafe Terminal Cover XW9Z-VL2MF

To install the IP20 fingersafe terminal cover, align the TOP marking on the cover with the TOP marking on the contact block, and press the cover toward the contact block.



Notes:

1. Once installed, the XW9Z-VL2MF cannot be removed.
2. With the XW9Z-VL2MF installed, crimping terminals cannot be used. Use solid wires.
3. The XW9Z-VL2MF cannot be installed after wiring.
4. Make sure that the XW9Z-VL2MF is securely installed. IP20 cannot be achieved when installed loosely, and electric shocks may occur.

### Notes for Operation

When using the XN emergency stop switches in safety-related part of a control system, observe safety standards and regulations of the relevant country or region. Also be sure to perform a risk assessment before operation.

#### Wiring

Tighten the M3 terminal screws to a torque of 0.6 to 1.0 N·m.

#### Contact Bounce

When the button is reset by pulling or turning, the NC main contacts will bounce. When pressing the button, the NO monitor contacts will bounce.

When designing a control circuit, take the contact bounce time into consideration (reference value: 20 ms).

#### LED Illuminated Switches

An LED lamp is built into the contact block and cannot be replaced.

#### Handling

Do not expose the switch to excessive shocks and vibrations, for example by operating the switch with tools. Otherwise the switch may be deformed or damaged, causing malfunction or operation failure.