Pushbutton

FX Series

250V/125VAC 6A

Solder Lug PCB Terminal

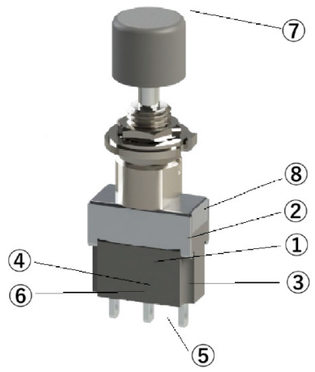
SP 2P 3P 4P

Outline of the Series

These compact, high-reliability switches are rated for 6A and designed for easy panel or PCB mounting. The lineup includes toggle, splash-proof toggle, rocker, and push-button switches.

Features of the Series

1 Independent springs are used for each switching mechanism type to ensure contact stability.
2 Metal parts in the frame are minimized to maintain high insulation and safety.
3 UL94 V-0 flame-retardant resin with excellent heat resistance, electrical insulation, and mechanical strength is used.
4 A support mechanism ensures secure contact between the movable contact and the common terminal (fixed contact), reducing bounce.
5 The terminal pitch is 5 mm, suitable for both standard inch-pitch and metric-pitch PCBs.
6 Silver alloy is used for the contacts, offering high contact reliability and excellent arc resistance.
7 Switch height is standardized across all models from single-pole to 4-pole, optimized for PCB mounting.
8 The frame is made from stainless steel for superior corrosion resistance.
(All models comply with Directive 2011/65/EU of the European Parliament and of the Council (RoHS) regarding the restriction of the use of certain hazardous substances.)



Common Specifications

■ Ratings

Silver Alloy Contact	Gold Plating Contact	Load	Notes
AC125/250V 6A	0.4VA AC • DC20V MAX	Resistive Load	Load only with Resistive, Power Factor=1
DC30V 3A			

* A resistive load refers to a load consisting solely of resistance. In actual circuits, however, there may be inductive, capacitive, or motor loads, each of which can generate inrush current. Therefore, when selecting a switch, be sure to choose a rating with sufficient margin above the steady-state current.
For more details, please refer to "Useful Advices and Precautions on Usage of Operational Switches."

Packaging Quantity	
SP • DP	100 pcs
3P • 4P	50 pcs

Contact Resistance	10 mΩ Max. (DC2V 1A) (Initial value)
Withstanding Voltage	AC1,000V 1 Minute
Insulating Resistance	1,000MΩ Min. (DC500V)
Electrical Life	25,000 times
Operating Temperature Range	-20℃～ +70℃
Storage Temperature Range	-20℃～ +70℃
Hand-soldering Conditions	350 ± 3℃ within 3 sec.

* For products other than those listed above or for custom items, please contact us.

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Product Designations

Series Name	Poles	Operational-part Type	Switch Functions	Current Capacity	Type of Terminals	Contact Materials
F	X		P	D	0	1	

Poles	Symbol
1	(none)
2	(none)
3	3
4	4

Operational-part	Symbol
Pushbutton	P
Splash-proof Pushbutton	M

Switch Functions			Symbol	
Initial Position	Center	When the Button is pushed	SP 3P	DP 4P
ON	-	ON	D	N
ON	-	<ON>	F	R

< > = Momentary

Contact Materials	Symbol
Silver Alloy	(none)
Gold Plating	G

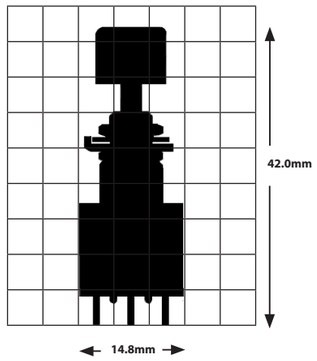
* For use with micro-currents, please select gold-plated contacts. Silver contacts may result in unstable performance at low currents, as oxidation or sulfide films on the surface are not removed by arcing.

Type of Terminals	Symbol
Solder Lug	1
PCB Terminal	3

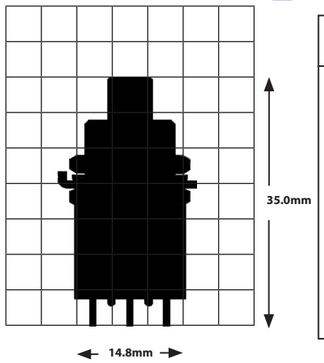
Shape of Operational-part	Symbol
Standard Pushbutton	0
Large Pushbutton	1

* For Splash-proof type, only 0 is availabe.

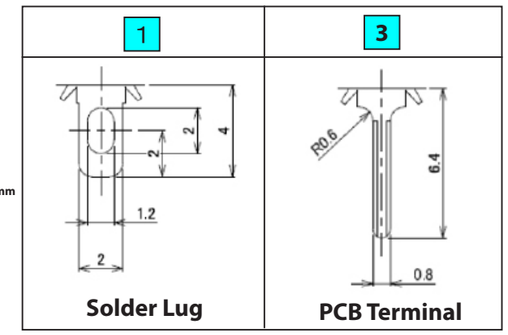
Silhouette （FXPD01）



Silhouette （FXPD11）



■ Terminal Dimensions F X □ P/M □ □ ■ □



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Pushbutton
FX Series
250V/125VAC 6A
Solder Lug PCB Terminal
SP 2P 3P 4P

Switch Names, Functions, Terminal Diagram

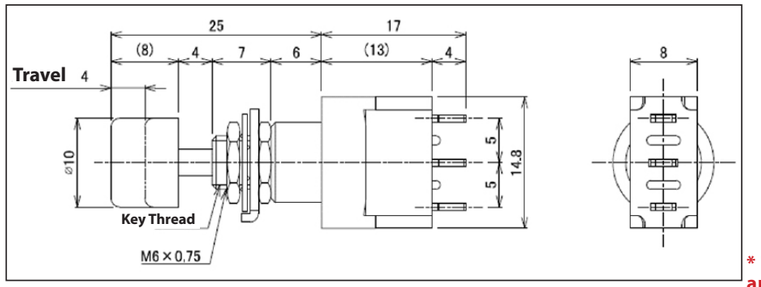
Standard Pushbutton SP Solder Lug

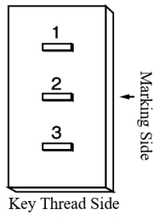
F X ☐ P ☐ 0 1 ☐

Product Name	Circuit	Functions <> = Momentary	
FXPD01	SPDT	Alternate	
		ON 2-3 or ON 2-1	
FXPF01	SPDT	Momentary	
		Initial Position	When the Button is pressed
		ON 2-3	‹ON› 2-1

■ Shape of Operational-part

■ Terminal Diagram





*** Terminal Numbers are not indicated on the case.**

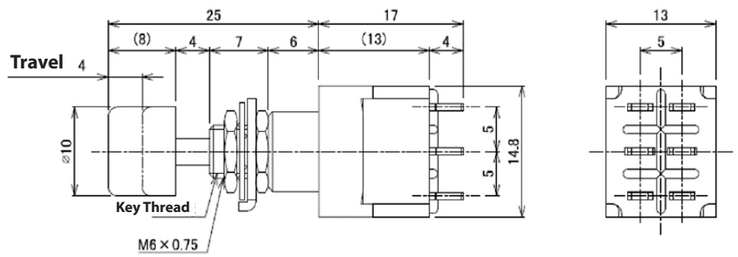
Standard Pushbutton 2P Solder Lug

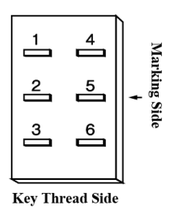
F X ☐ P ☐ 0 1 ☐

Product Name Solder Lug	Circuit	Functions <> = MomentaryR	
FXPN01	DPDT	Alternate	
		ON 2-3 5-6 or ON 2-1 5-4	
FXPR01	DPDT	Momentary	
		Initial Position	When the Button is pressed
		ON 2-3 5-6	‹ON› 2-1 5-4

■ Shape of Operational-part

■ Terminal Diagram





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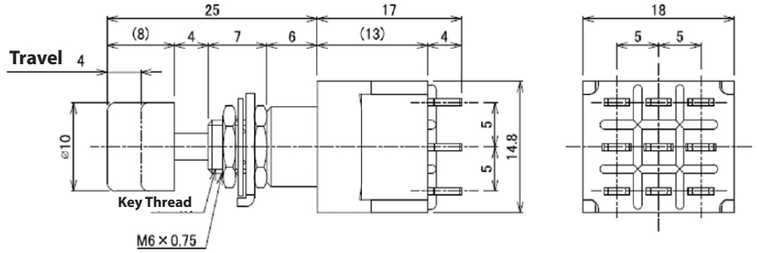
Standard Pushbutton 3P Solder Lug

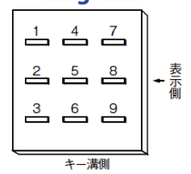
F X 3 P ☐ 0 1 ☐

Product Name	Circuit	Functions <> = Momentary	
FX3PD01	3PDT	Alternate	
		ON 2-3 5-6 8-9 or ON 2-1 5-4 8-7	
FX3PF01	3PDT	Momentary	
		Initial Position	When the Button is pressed
		ON 2-3 5-6 8-9	‹ON› 2-1 5-4 8-7

■ Shape of Operational-part

■ Terminal Diagram





*** Terminal Numbers are not indicated on the case.**

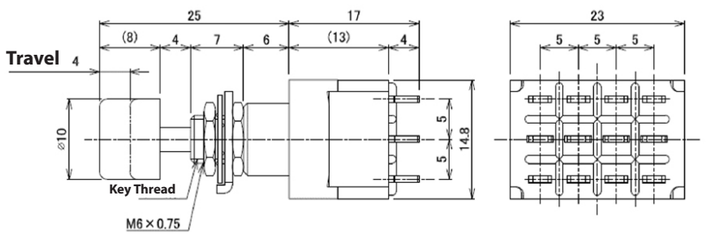
Standard Pushbutton 4P Solder Lug

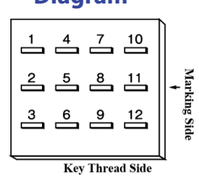
F X 4 P ☐ 0 1 ☐

Product Name	Circuit	Functions <> = Momentary	
FX4PN01	4PDT	Alternate	
		ON 2-3 5-6 8-9 11-12 or ON 2-1 5-4 8-7 11-10	
FX4PR01	4PDT	Momentary	
		Initial Position	When the Button is pressed
		ON 2-3 5-6 8-9 11-12	‹ON› 2-1 5-4 8-7 11-10

■ Shape of Operational-part

■ Terminal Diagram





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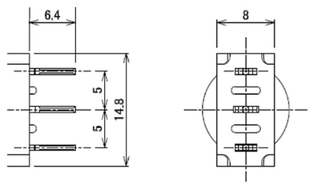
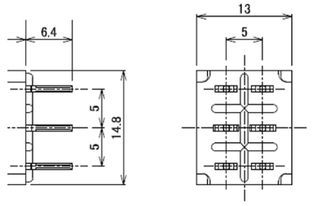
Standard Pushbutton PCB Terminal（Terminal-part only）

F X ☐ P ☐ 0 3 ☐

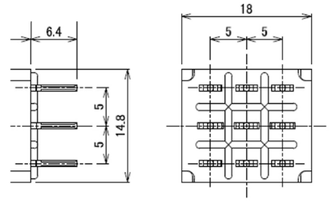
SP



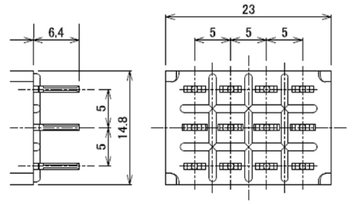
DP



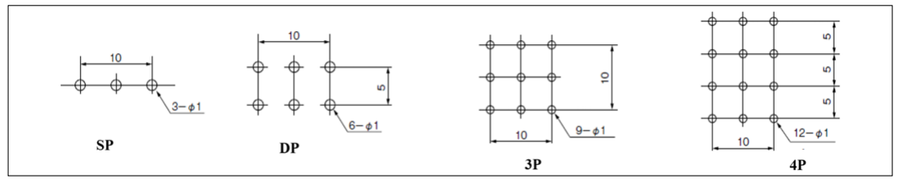
3P



4P



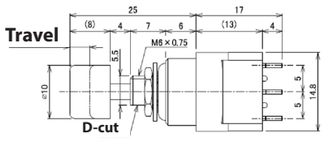
■ Dimensions of Mounting Holes for PCB



Splash-proof Pushbutton Solder Lug

F X ☐ M ☐ 0 1 ☐

SP



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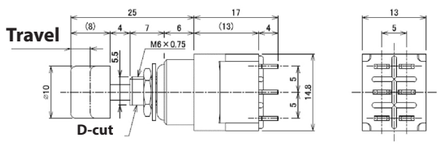
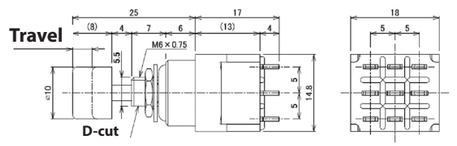
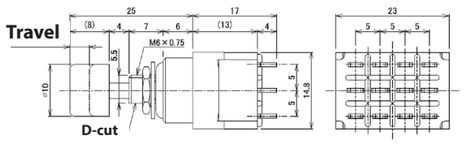


3P



4P



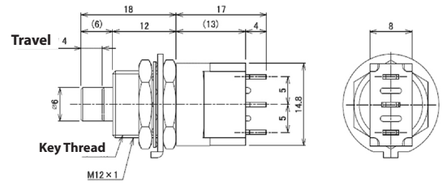
* Regarding the dimensions of PCB Terminals, please refer to those for Standard Pushbutton.

* For products other than those listed above or for custom items, please contact us.

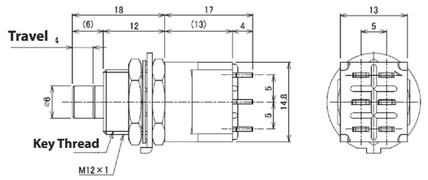
Large Pushbutton Solder Lug

F X ☐ M ☐ 1 1 ☐

SP



DP

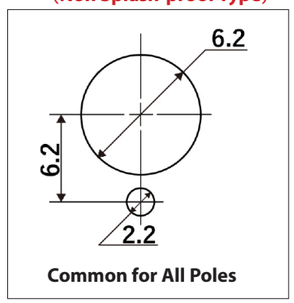


* Regarding the dimensions of PCB Terminals, please refer to those for Standard Pushbutton.

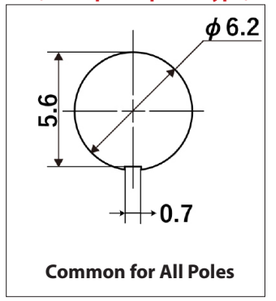
Mounting Hole Dimensions, Mounting Parts Dimensions

■ Mounting Hole Dimensions （Standard Button/ Splash-proof Button）

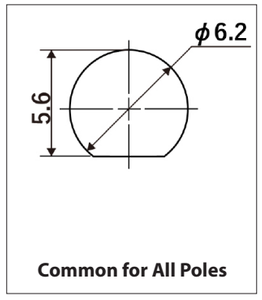
With Stopper Ring （Non Splash-proof Type）



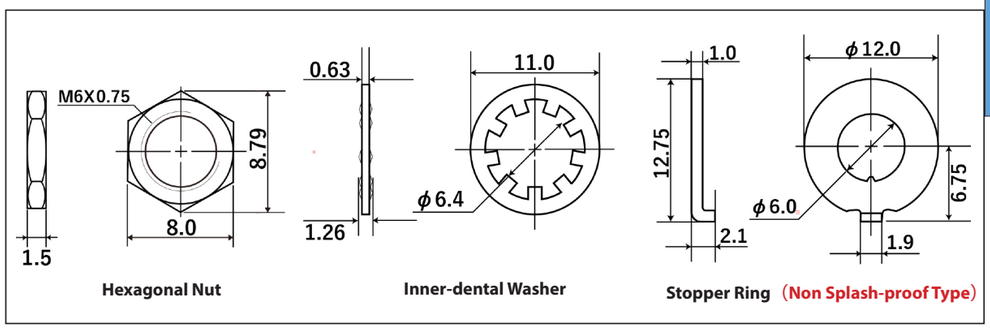
Withoyt Stopper Ring （Non Splash-proof Type）



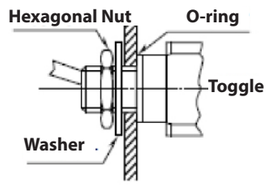
D-cut （Splash-proof）

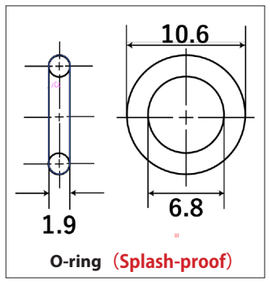


■ Mounting Parts Dimensions/ Mounting Method



Mounting Method (Splash-proof)





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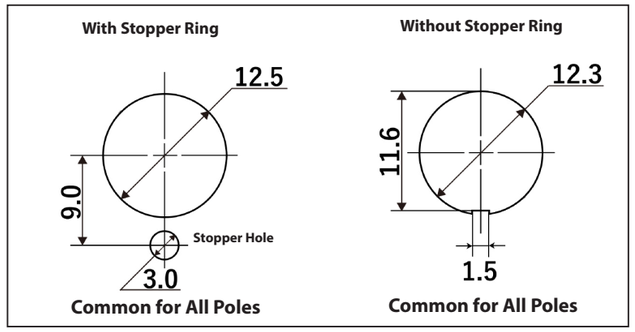
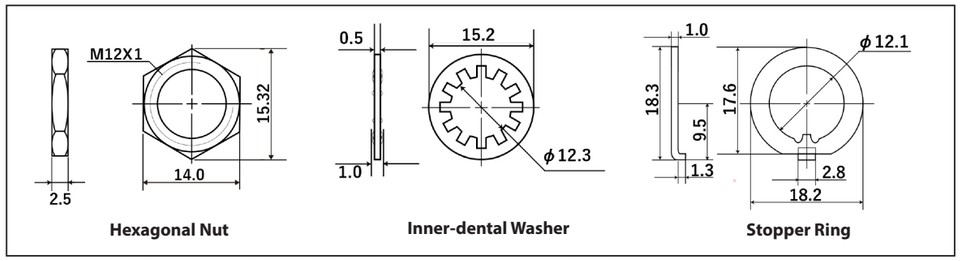
■ Mounting Hole Dimensions（Large Pushbutton）



■ Mounting Parts Dimensions（Large Toggle）



*** For non-splash-proof models, only the lower nut is pre-installed on the main unit; other accessories are included separately.**

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■ Switches for Logic-Level Currents

**Switches rated for several amperes typically use silver (or silver alloy) contacts.
While these contacts are generally reliable at higher currents, over time oxidation or sulfide buildup can increase contact resistance.
At logic-level currents—typically just a few milliamperes—the arc generated during switching is insufficient to remove such films, potentially leading to contact failure.
For such applications, we recommend switches with gold-plated contacts, designed specifically for low-current logic circuits.**

Examples of Switches with Gold Plating Contacts（Left: NTD12、Right: FXTN01G）

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