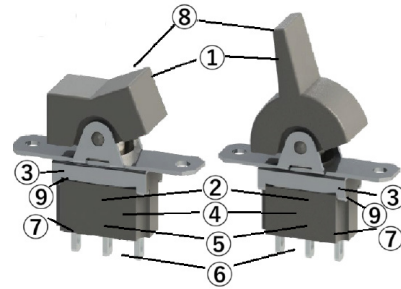


Outline of the Series

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

- Two types of actuators are available—lever type and rocker type—to suit various panel designs and applications. In addition to standard screw-mounted panel installation, snap-in and PCB-mounted versions are also available.
- Independent springs are used for each switching mechanism type to ensure contact stability.
- Metal parts in the frame are minimized to maintain high insulation and safety.
- UL94 V-0 flame-retardant resin with excellent heat resistance, electrical insulation, and mechanical strength is used.
- A support mechanism ensures secure contact between the movable contact and the common terminal (fixed contact), reducing bounce.
- The terminal pitch is 5 mm, suitable for both standard inch-pitch and metric-pitch PCBs.
- Silver alloy is used for the contacts, offering high contact reliability and excellent arc resistance.
- Switch height is standardized across all models from single-pole to 4-pole, optimized for PCB mounting.
- 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

100 pcs

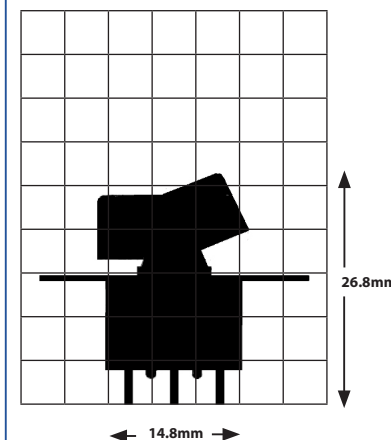
Contact Resistance	10 mΩ Max. (DC2V 1A) (Initial value)
Withstanding Voltage	AC1,000V 1 Minute
Insulating Resistance	1,000MΩ Min. (DC500V)
Electrical Life	25,000 times (<ON>-OFF-<ON>Type (G, S) only are 5,000 times.)
Operating Temperature Range	-20°C ~ +70°C
Storage Temperature Range	-20°C ~ +70°C
Hand-soldering Conditions	350 ± 3°C within 3 sec.

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

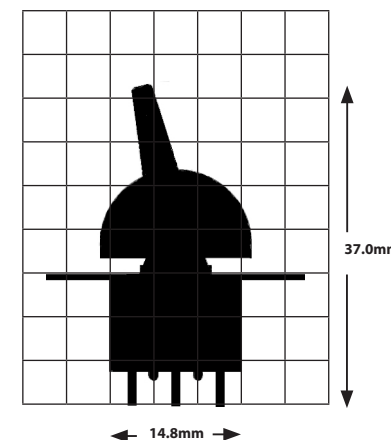
Product Designations

Series Name		Poles	Operational- part Type	Switch Functions	Current Capacity	Type of Terminals	Contact Materials																																			
F	X		E	D	1	1																																				
		<table><tr><th>Poles</th><th>Symbol</th></tr><tr><td>1</td><td>(none)</td></tr><tr><td>2</td><td>(none)</td></tr><tr><td>3</td><td>3</td></tr><tr><td>4</td><td>4</td></tr></table>	Poles	Symbol	1	(none)	2	(none)	3	3	4	4	<table><tr><th>Operational-part/ Mount</th><th>Symbol</th></tr><tr><td>Standard /PCB Mount</td><td>E</td></tr><tr><td>Lever/ Rocker</td><td></td></tr><tr><td>Snap-in Lever/ Rocker</td><td>L</td></tr></table>	Operational-part/ Mount	Symbol	Standard /PCB Mount	E	Lever/ Rocker		Snap-in Lever/ Rocker	L																					
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		* Snap-in Types are for SP(1P)/ DP(2P) only.																																								
		<table><tr><th colspan="3">Switch Functions</th><th colspan="2">Symbol</th></tr><tr><th>The Opposite Side</th><th>Center</th><th>Key Thread Side</th><th>SP 3P</th><th>DP 4P</th></tr><tr><td>ON</td><td>-</td><td>ON</td><td>D</td><td>N</td></tr><tr><td>ON</td><td>OFF</td><td>ON</td><td>E</td><td>P</td></tr><tr><td>ON</td><td>-</td><td><ON></td><td>F</td><td>R</td></tr><tr><td><ON></td><td>OFF</td><td><ON></td><td>G</td><td>S</td></tr><tr><td>ON</td><td>OFF</td><td><ON></td><td>H</td><td>T</td></tr></table>			Switch Functions			Symbol		The Opposite Side	Center	Key Thread Side	SP 3P	DP 4P	ON	-	ON	D	N	ON	OFF	ON	E	P	ON	-	<ON>	F	R	<ON>	OFF	<ON>	G	S	ON	OFF	<ON>	H	T			
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					* 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.																																					
					* PCB Mount Types are for 3 only.																																					
					<table><tr><th>Shape of Operational-part</th><th>Symbol</th></tr><tr><td>Lever</td><td>1</td></tr><tr><td>Rocker</td><td>2</td></tr><tr><td>Lever (PCB Mount)</td><td>3</td></tr><tr><td>Rocker (PCB Mount)</td><td>4</td></tr></table>			Shape of Operational-part	Symbol	Lever	1	Rocker	2	Lever (PCB Mount)	3	Rocker (PCB Mount)	4																									
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Silhouette (FXED21)



Silhouette (FXED11)



■ Dimensions of Terminals

F X E/L

1	3
Solder Lug	PCB Terminal

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

Rocker

FX
Series

250V/125VAC
6A

Solder Lug
PCB Terminal

SP 2P
3P 4P

Switch Names, Functions, Terminal Diagram

Standard Rocker SP Solder Lug

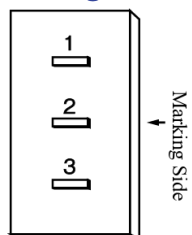
F X E 2 1

Product Name (SP)	Circuit	Functions <=> Momentary		
				
FXED21	SPDT	ON 2-3	—	ON 2-1
FXEE21	SPDT	ON 2-3	OFF	ON 2-1
FXEF21	SPDT	ON 2-3	—	<ON> 2-1
FXEG21	SPDT	<ON> 2-3	OFF	<ON> 2-1
FXEH21	SPDT	ON 2-3	OFF	<ON> 2-1

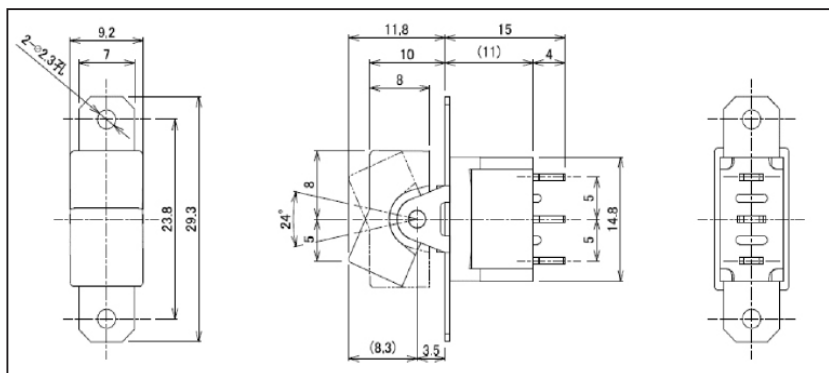
■ Shape of Operational-part



■ Terminal Diagram



* Terminal Numbers are not indicated on the case.



Standard Rocker DP Solder Lug

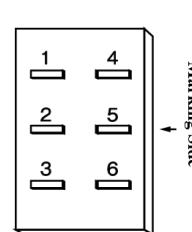
F X E 2 1

Product Name (DP)	Circuit	Functions <=> Momentary		
				
FXEN21	DPDT	ON 2-3 5-6	—	ON 2-1 5-4
FXEP21	DPDT	ON 2-3 5-6	OFF	ON 2-1 5-4
FXER21	DPDT	ON 2-3 5-6	—	<ON> 2-1 5-4
FXES21	DPDT	<ON> 2-3 5-6	OFF	<ON> 2-1 5-4
FXET21	DPDT	ON 2-3 5-6	OFF	<ON> 2-1 5-4

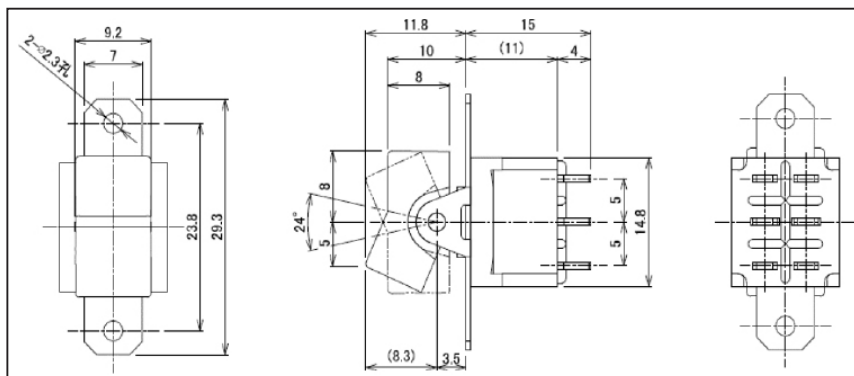
■ Shape of Operational-part



■ Terminal Diagram



* Terminal Numbers are not indicated on the case.



Rocker

FX
Series

250V/125VAC
6A

Solder Lug
PCB Terminal

SP 2P
3P 4P

Standard Rocker 3P Solder Lug

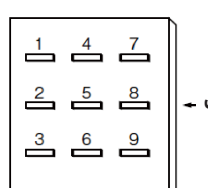
F X 3 E 2 1

■ Shape of Operational-part

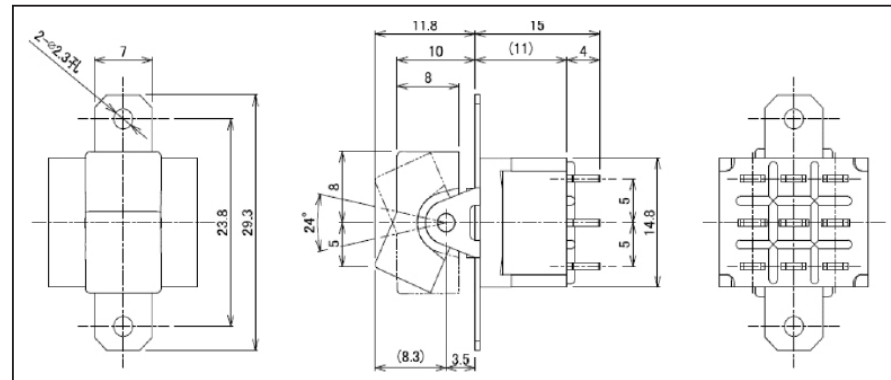
Product Name (3P)	Circuit	Functions <=> Momentary		
				
FX3ED21	3PDT	ON 2-3 5-6 8-9	—	ON 2-1 5-4 8-7
FX3EE21	3PDT	ON 2-3 5-6 8-9	OFF	ON 2-1 5-4 8-7
FX3EF21	3PDT	ON 2-3 5-6 8-9	—	<ON> 2-1 5-4 8-7
FX3EG21	3PDT	<ON> 2-3 5-6 8-9	OFF	<ON> 2-1 5-4 8-7
FX3EH21	3PDT	ON 2-3 5-6 8-9	OFF	<ON> 2-1 5-4 8-7



■ Terminal Diagram



* Terminal Numbers are not indicated on the case.



Standard Rocker 4P Solder Lug

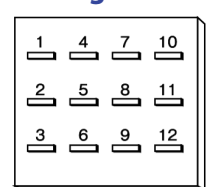
F X 4 E 2 1

■ Shape of Operational-part

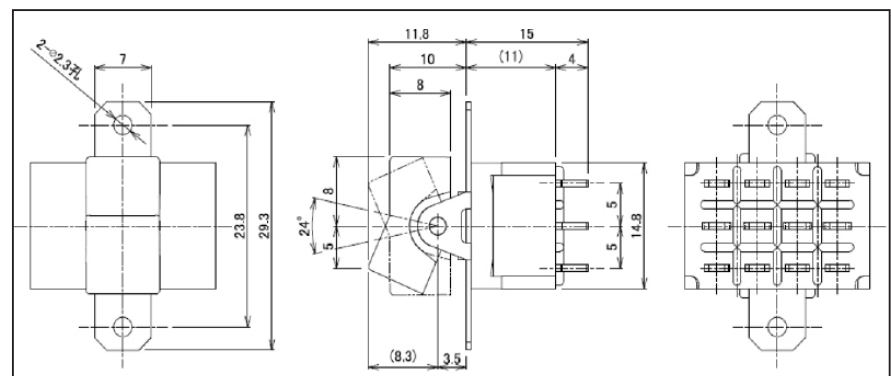
Product Name (4P)	Circuit	Functions <=> Momentary		
				
FX4EN21	4PDT	ON 2-3 5-6 8-9 11-12	—	ON 2-1 5-4 8-7 11-10
FX4EP21	4PDT	ON 2-3 5-6 8-9 11-12	OFF	ON 2-1 5-4 8-7 11-10
FX4ER21	4PDT	ON 2-3 5-6 8-9 11-12	—	<ON> 2-1 5-4 8-7 11-10
FX4ES21	4PDT	<ON> 2-3 5-6 8-9 11-12	OFF	<ON> 2-1 5-4 8-7 11-10
FX4ET21	4PDT	ON 2-3 5-6 8-9 11-12	OFF	<ON> 2-1 5-4 8-7 11-10



■ Terminal Diagram



* Terminal Numbers are not indicated on the case.



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Rocker

FX
Series

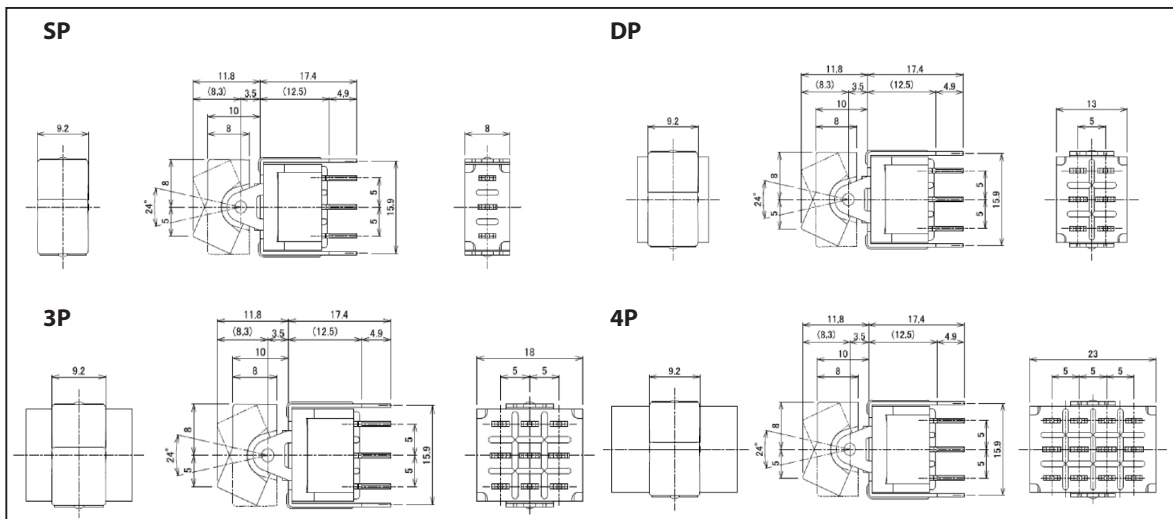
250V/125VAC
6A

Solder Lug
PCB Terminal

SP 2P
3P 4P

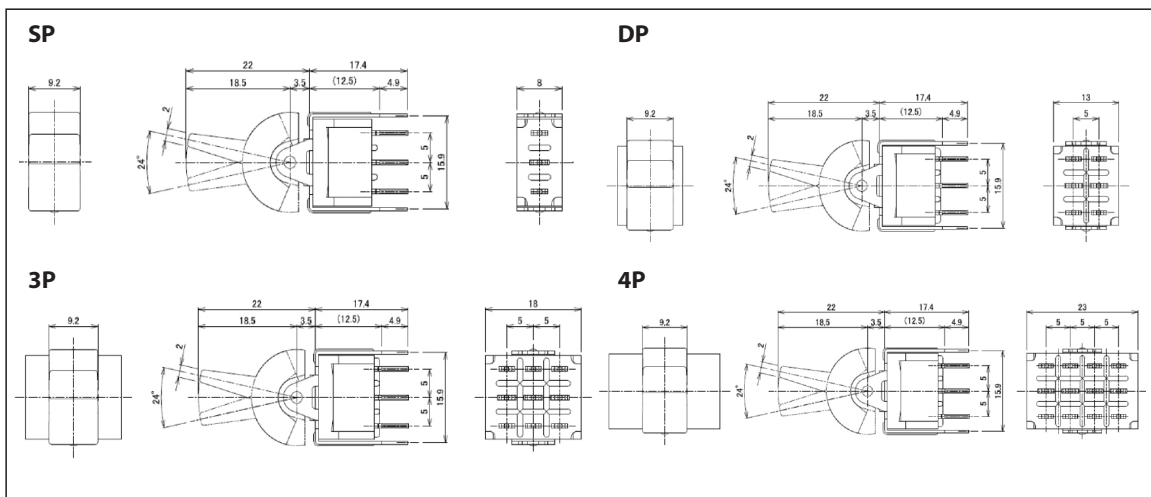
PCB Mount Rocker PCB Terminal

F X E 4 3



PCB Mount Lever PCB Terminal

F X E 3 3



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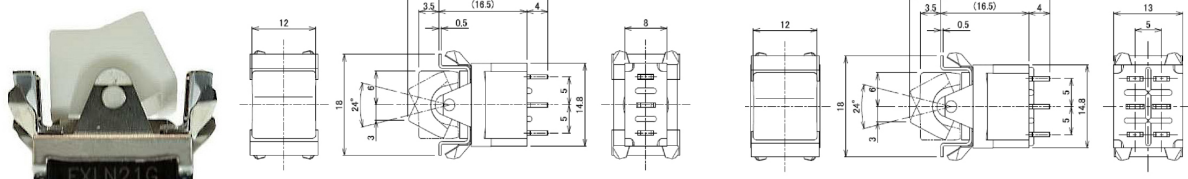
Snap-in Rocker Solder Lug/ PCB Terminal (The below charts show Solder Lug only)

F X L 2

Shape of Operational-part

SP

DP



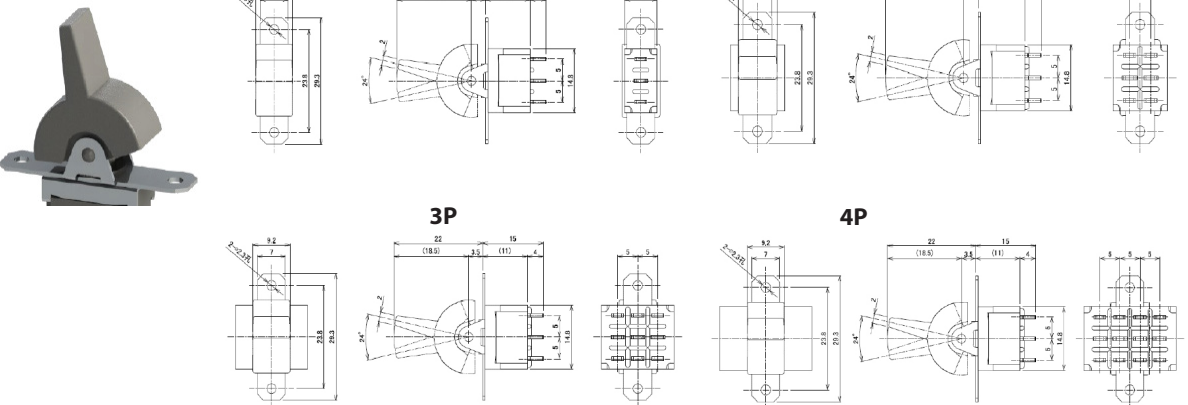
Standard Lever Solder Lug/ PCB Terminal (The below charta show Solder Lug only)

F X E 1

Shape of Operational-part

SP

DP



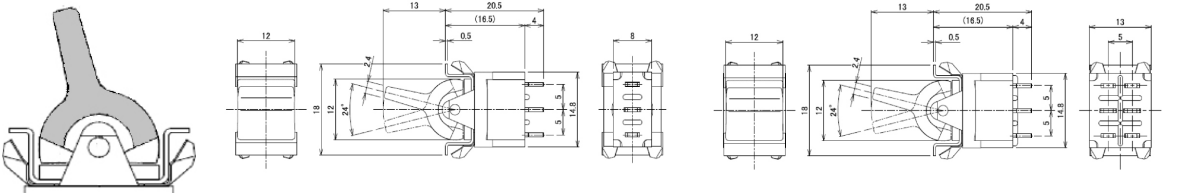
Snap-in Lever Solder Lug/ PCB Terminal (The below charts show Solder Lug only)

F X L 1

Shape of Operational-part

SP

DP



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Rocker

FX
Series

250V/125VAC
6A

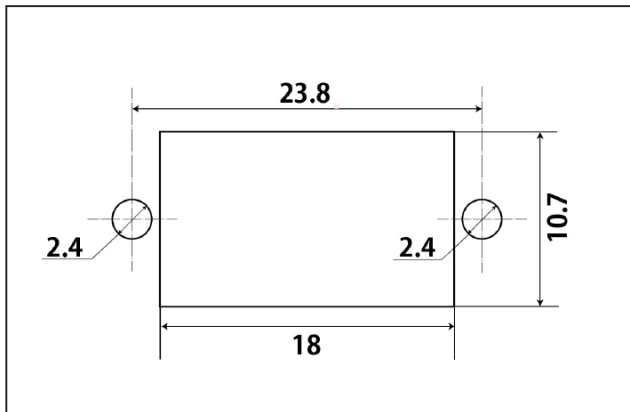
Solder Lug
PCB Terminal

SP 2P
3P 4P

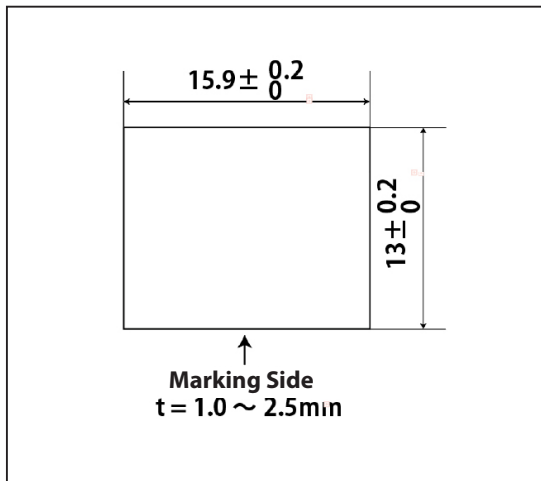
Mounting Hole Dimensions

■ Mounting Hole Dimensions

Standard Lever/ Rocker

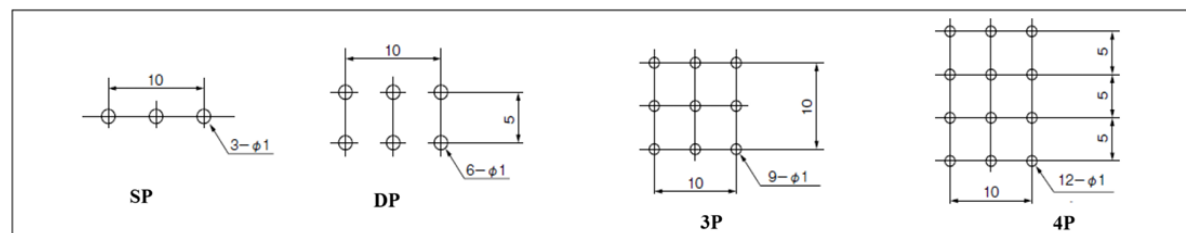


Snap-in

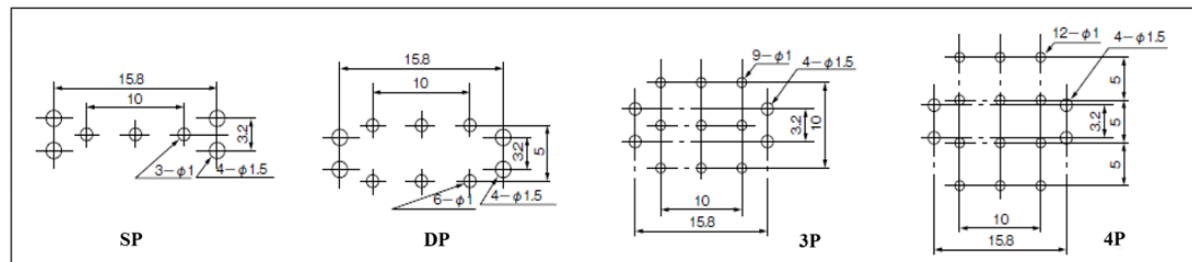


■ Mounting Hole Dimensions for PCB

PCB Terminal Mounting Holes Dimensions



PCB Terminal Mounting Holes (with Brackets) Dimensions



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Switch Tips

■ 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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