

## Latching PCB Power Switch



### DESCRIPTION

A PCB mounting power switch with latching action.

### DISTINCTIVE FEATURES

- Can be PCB or chassis/panel mounted
- Incorporates both PCB and solder connections
- PCB mounting
- Solder terminals
- Latching action

### APPLICATIONS

Suitable for power switching in a wide variety of applications. Can be PCB mounted, but also chassis or panel mounted.

PCB

DPST

Latching

4 Amp





## ELECTRICAL SPECIFICATION

Maximum contact voltage	250V AC
Maximum current	4A
Contact resistance	100 mΩ max
Insulation resistance	100 MΩ min (Test conditions 500V DC)
Dielectric strength	<ul style="list-style-type: none"> <li>• AC 1,000V 1 minute between terminals</li> <li>• AC 4,000V 1 minute between terminal and frame</li> </ul>



## GENERAL SPECIFICATION

Type	Locking power PCB mounting switch
Contact Configuration	DPST
RoHS Compliant	Yes



## MATERIALS

		Quantity per switch (see drawing)
Knob	PC (polycarbonate)	1
Spring	Stainless steel	1
Cover	PA66 (polyamide) black	1
Lock pin	Black steel wire over nickel brass plating	1
Spring plate	Stainless steel	2
Base frame	PA66 (polyamide) black	1
Actuator	PA66 (polyamide) milk white	1
Terminal	Brass with silver plating	4
Bracket	Steel Plate with rainbow zinc plating	1
Slider	PA66 (polyamide) black	1
Moving contact	Phosphor Bronze Ag.ZnO with silver plating	2



## ENVIRONMENTAL/OPERATING SPECIFICATION

Operational temperature	-40°C to + 85°C
Electrical life	10,000 cycles
Mechanical life	10,000 cycles
Operating force	600 gf +/- 200
Lock travel	3.0±0.3 mm
Full travel	4.5±0.3 mm
Resistance of soldering heat	<ul style="list-style-type: none"> <li>• Manual soldering: 300±5°C in 3 seconds</li> <li>• Dip solderin: 260±5°C in 3 seconds</li> </ul>
Durability test (operating life without load test after 10,000 cycles)	<ul style="list-style-type: none"> <li>• Contact resistance: 100mΩ max</li> <li>• Operating force: within the range ±30% of operating force specification</li> <li>• Insulation resistance and Dielectric strength shall meet the requirements in the electrical specification</li> </ul>

Item	Test Conditions	Criteria
Robustness of terminal	Static load of 1 Kgf applied for one minute	Terminals may be bent, but loosened terminal or damage to the board is not permitted
Robustness of actuator	<ul style="list-style-type: none"> <li>• Along operating direction to apply a static load 10 kgf at end of actuator to push for 15 seconds</li> <li>• To apply a static load 2kgf vertically to end of actuator to push it for 15 seconds</li> <li>• Along opposite operating direction to apply a static load 5 kgf to pull end of actuator for 15 seconds</li> </ul>	Actuator broken or any visible damage to switch construction is not permitted
Solderability	(260 +/- 5°C in 3 seconds)	Solder coverage 75% min
Enviromental performance (cold)	-40°C +/- 2°C for 48 hours	<ul style="list-style-type: none"> <li>• It should meet requirements of the electrical performance</li> <li>• Mechanical performance should remain normal</li> </ul>
Enviromental performance (dry heat)	-40°C +/- 2°C for 48 hours	<ul style="list-style-type: none"> <li>• Contact resistance should be less than 150 mΩ</li> <li>• It should meet requirements of the insulation resistance and the dielectric strength</li> <li>• Mechanical performance should remain normal.</li> </ul>
Enviromental performance (damp heat)	40°C +/- 2°C 90% ~ 95%rh for 96 hours	<ul style="list-style-type: none"> <li>• Contact resistance should be less than 150 mΩ</li> <li>• insulation resistance should be higher than 100 MΩ</li> <li>• Dielectric strength should not change</li> <li>• Mechanical performance should remain normal</li> </ul>



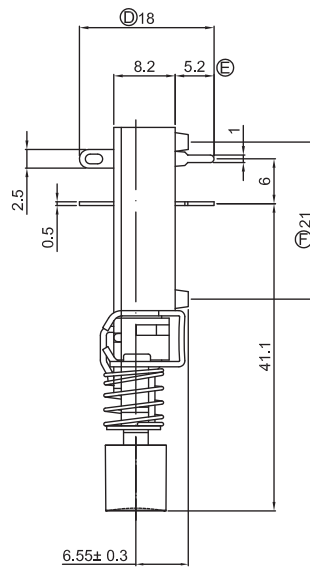
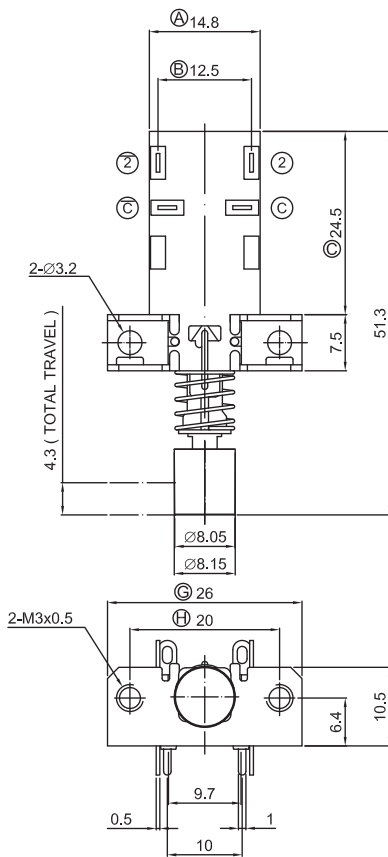
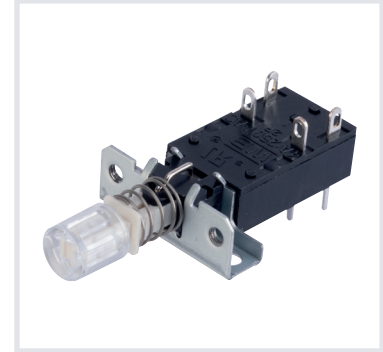
## TERMINALS

Solder pins	Pitch 10/12.5mm
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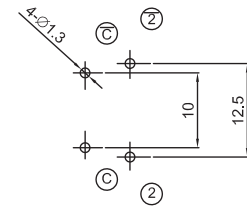


## DIMENSIONS/DRAWINGS

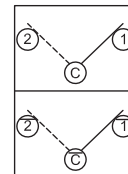
Units	mm - unless stated otherwise
Dimensions (mm)	51.3 x 26 x 8.2
Weight (grams)	7



### P.C.B. LAYOUT



### SCHEMATIC



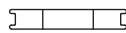
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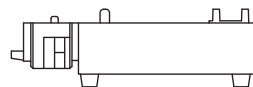
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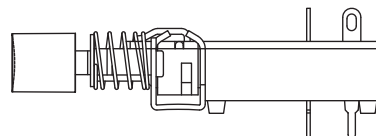


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No. Part	Material
1 Actuator	PA66
2 Spring	Stainless Steel
3 Lock Pin	Black Stainless Steel
4 Bracket	Steel Plate
5 Cover	PA66
6 Slider	PA66
7 Moving Contact	Phosphor Bronze/Ag.ZnO
8 Spring Plate	Stainless Steel
9 Base Frame	PA66
10 Terminal	Brass
11 Knob	PC





## OPTIONS (MOQ may apply)

78-0387 Switch options	SPST, SPDT, DPST and DPDT options are available
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Accessories and Associated Parts		
Part	Part Number	Description
Knob	78-0388	Grey knob Suitable for use with R-TECH 78-0387 PCB Power Switch Locking DPST
Knob	78-0389	Clear knob Suitable for use with R-TECH 78-0387 PCB Power Switch Locking DPST



## PART NUMBER TABLE

Part Number	UNSPSC	EAN	Country Of Origin
<b>78-0387</b>	39122216	5053556003174	China



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