



**THE DATASHEET OF
5646AB**



5000M series

Miniature toggle switches •
threaded bushing Ø 11.9 mm



DISTINCTIVE FEATURES

Bushing Ø 11.9 (15/32)

Panel mounting and PCB terminal combination available

1 to 4 pole configurations

UL and CSA approved



ELECTRICAL SPECIFICATIONS

- Current/voltage rating with resistive load :

Contact	Maximum	Minimum	Level*
Silver (A)	4 A 30 VDC	50 mA 10 VDC	III and IV
Silver, gold plated (AD)	4 A 30 VDC Gold plating withstands up to 100 mA 30 VDC	10 mA 50 mV 10 µA 5 V	I to IV
Brass, gold plated (CD)	0.4 VA at 20 VAC or DC	10 mA 50 mV 10 µA 5 V	I and II

*For details, see Technical Information on website.

- For inductive, lamp or capacitive load, consult factory.
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :
1,000 Vrms 50 Hz min. between terminals
1,500 Vrms 50 Hz min. between poles
1,500 Vrms 50 Hz min. between terminals and frame
- Contact bounce : 2 ms max.
- Electrical life at full load :
50,000 cycles for single and double pole
40,000 cycles for 3 pole
30,000 cycles for 4 pole
- Low level or mechanical life : 100,000 cycles



GENERAL SPECIFICATIONS

- Torque : 1.25 Nm (.922 Ft.lb) max. applied to nut
- Panel thickness : up to 6 mm (.236)
- Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)

The company reserves the right to change specifications without notice.



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MATERIALS

- Case : diallyphthalate (DAP) or high temperature plastic material (UL94-V0)
- Actuator : brass, nickel plated
- Bushing : brass, nickel plated
- Housing : stainless steel or steel tin plated
- Contacts
 - A : silver
 - AD : silver, gold plated
 - CD : brass, gold plated
 - X814 : for peak currents, see "Special options".
- Terminal seal : epoxy

AGENCY APPROVALS



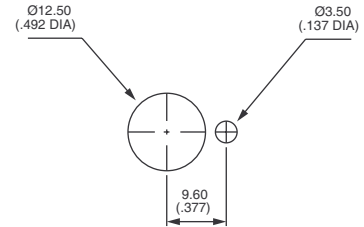
3 A 250 VAC, 6 A 125 VAC

Availability : consult factory for details of approved models.

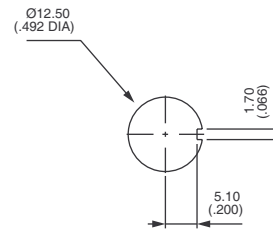
Marking : to order switches marked UL or CSA, complete appropriate box of ordering format. The preferential list does not appear on the switches.



PANEL CUT-OUT



Standard

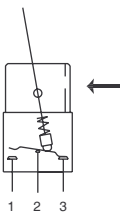


With K sealing option

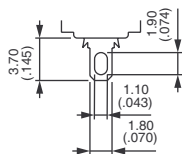


ELECTRICAL FUNCTION

→ KEYWAY



TERMINALS



5000M series

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BUILD YOUR PART NUMBER

BASIC PART NUMBER

<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;">5</div> <p>SERIES</p>	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;"> </div> <p>TERMINALS</p>	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;"> </div> <p>NUMBER OF POLES</p>	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;"> </div> <p>TERMINALS</p>	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;"> </div> <p>MOMENTARY FOR FUNCTION 4</p>										
<p>2 Straight PC terminals, 4.70 (.185) terminal spacing - On request.</p> <p>6 Solder lug terminals</p>	<p>3 Single pole</p> <p>4 Double pole</p> <p>5 Three pole</p> <p>6 Four pole</p>	<p>M Solder lugs with Ø 11.9 (15/32) bushing</p>	<p>1R ON ON MOM</p> <p>2R MOM ON MOM</p> <p>Leave blank for other functions.</p>											
<p>ELECTRICAL FUNCTIONS</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 25%;">6 ON - ON</td> <td style="width: 25%;">8 ON OFF MOM</td> </tr> <tr> <td>9 ON OFF ON</td> <td>4 ON ON ON</td> </tr> <tr> <td>7 MOM OFF MOM</td> <td>4 ON ON MOM ▲</td> </tr> </table>			6 ON - ON	8 ON OFF MOM	9 ON OFF ON	4 ON ON ON	7 MOM OFF MOM	4 ON ON MOM ▲	<p>CONNECTIONS FOR FUNCTION 4</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">TH Standard</td> <td></td> </tr> <tr> <td>CT Reversed</td> <td></td> </tr> </table> <p>For functions 4, 4-1R, 4-2R (leave blank for all other functions). Wiring diagrams, see Technical information on website.</p>		TH Standard		CT Reversed	
6 ON - ON	8 ON OFF MOM													
9 ON OFF ON	4 ON ON ON													
7 MOM OFF MOM	4 ON ON MOM ▲													
TH Standard														
CT Reversed														
<p>Function 4 ▲ Must not have blank in «momentary» box. Wiring diagrams, see Technical information, on website.</p>														

OPTIONS

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<p>A Silver</p> <p>AD Silver, gold plated</p> <p>CD Brass, gold plated</p>	<p>Blank Nickel plated</p> <p>G Black finish on bushing, actuator and hardware.</p>	<p>Blank No sealing</p> <p>K Front panel sealing by one O-ring and sealing washer</p> <p>B Epoxy sealed terminals</p>	<p>Blank (std) Length 17.5 (.688)</p> <p>-27 Length 11.7 (.460)</p>	<p>UL, CSA Availability : Consult factory for details of approved models.</p>



ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

⚠ **Notice:** please note that not all combinations of above numbers are available. Refer to the following pages for further information.

🔧 Mounting accessories : standard hardware supplied with all models : 2 hex nuts 14 mm (.551) across flats and 1 locking ring. Standard and special hardware is presented in the "Hardware" section of website.

5000M series

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SOLDER LUG TERMINALS SINGLE POLE



5636M	III	-	I
5639M	2-3	II	1-2
5637M	ON	OFF	ON
5638M	MOM	OFF	MOM

SOLDER LUG TERMINALS DOUBLE POLE



5646M	III	-	I
5649M	2-3	II	1-2
5647M	5-6	OFF	ON
5648M	ON	OFF	MOM
5644 M*	MOM	OFF	MOM
5644M 1R*	ON	ON	ON
5644M 2R*	ON	ON	MOM
5644M 2R*	MOM	ON	MOM

SOLDER LUG TERMINALS THREE POLE



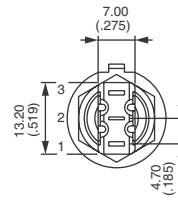
5656M	III	-	I
5659M	2-3	II	1-2
5657M	5-6	OFF	ON
5658M	8-9	OFF	MOM
5658M	ON	OFF	MOM

SOLDER LUG TERMINALS FOUR POLE

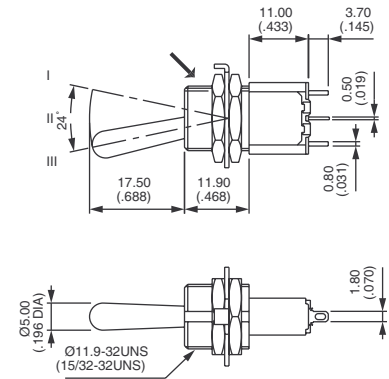


5666M	III	-	I
5669M	2-3	II	1-2
5667M	5-6	OFF	ON
5668M	8-9	OFF	MOM
5664 M*	11-12	OFF	MOM
5664M 1R*	ON	ON	ON
5664M 1R*	ON	ON	MOM
5664M 2R*	MOM	ON	MOM

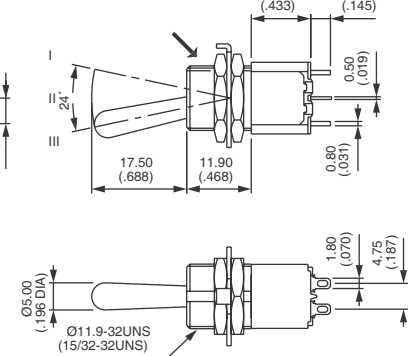
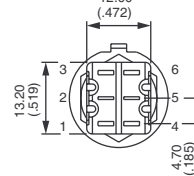
KEYWAY



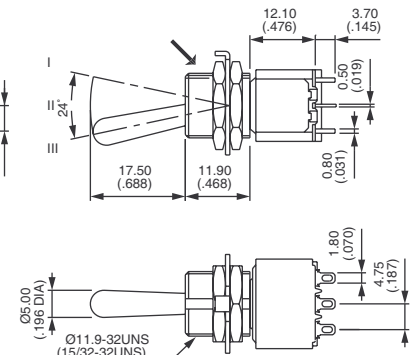
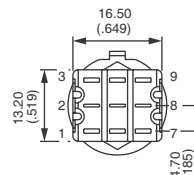
Shown with standard lever



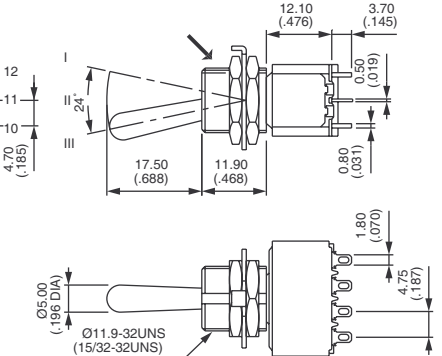
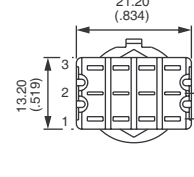
KEYWAY



KEYWAY



KEYWAY



*Function 4 : DP in 4P case - specify CT or TH connections, see "Technical information" on website.

5000M series

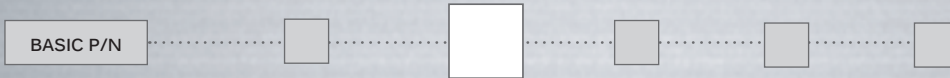
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CONTACT MATERIAL



- A Silver
- AD Silver, gold plated
- CD Brass, gold plated

FINISH

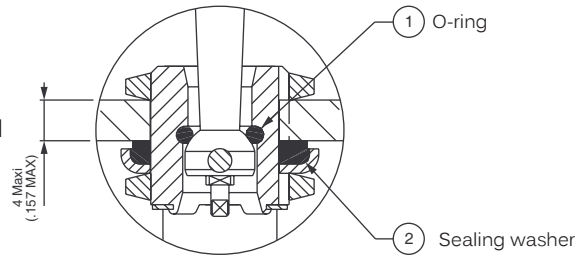


- Blank Nickel plated
- G Black finish on bushing, actuator and hardware

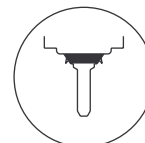
SEALING



- Blank No sealing required
- K Keyway bushing, Includes washer **U60**
Front panel sealing by one O-ring and sealing washer.
Protects the switch against water and dust.
Panel seal withstands 1 bar pressure and remains sealed even when switch is operated.
- B Epoxy sealed terminals
- KB Combined sealings

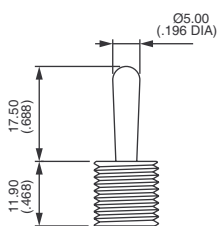


K

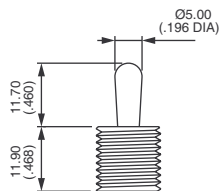


B

LEVERS



Blank
Standard



-27

5000M series

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AGENCY APPROVALS

BASIC P/N					
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UL

CSA



Blank No agency approval required.

Availability : consult factory for details of approved combinations or options.

Marking : to order switches marked UL or CSA, complete above box with desired approvals, in this order & without space (ex. : ULCSA).

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View 5646AB on WIN SOURCE](#)
-  [Apem Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management