



**THE DATASHEET OF  
5644TH1RAB**



# 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<br>Gold plating withstands up to 100 mA 30 VDC | 10 mA 50 mV<br>10 µA 5 V | I to IV    |
| Brass, gold plated (CD)  | 0.4 VA at 20 VAC or DC                                    | 10 mA 50 mV<br>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



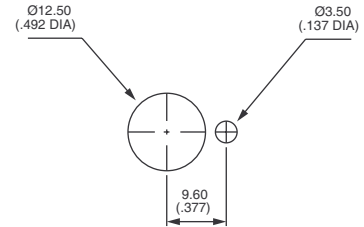
3 A 250 VAC, 6 A 125 VAC

**Availability** : consult factory for details of approved models.

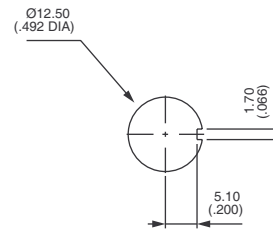
**Marking** : to order switches marked UL or CSA, complete appropriate box of ordering format. The preferential list does not appear on the switches.



## PANEL CUT-OUT



Standard

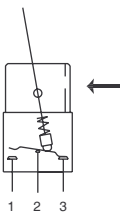


With K sealing option

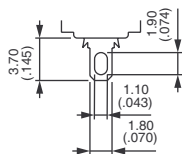


## ELECTRICAL FUNCTION

→ KEYWAY



## TERMINALS



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## BUILD YOUR PART NUMBER

**BASIC PART NUMBER**

|  |   |   |   |  |            |               |               |  |  |  |             |             |
|--|---|---|---|--|------------|---------------|---------------|--|--|--|-------------|-------------|
| <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">5</div> <p>SERIES</p>   | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>TERMINALS</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>NUMBER OF POLES</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>TERMINALS</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; 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><b>ELECTRICAL FUNCTIONS</b></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><b>CONNECTIONS FOR FUNCTION 4</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">TH Standard</td> </tr> <tr> <td>CT Reversed</td> </tr> </table> <p>For functions 4, 4-1R, 4-2R (leave blank for all other functions).<br/>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><b>Function 4</b><br/>▲ Must not have blank in «momentary» box.<br/>Wiring diagrams, see Technical information, on website.</p>   |   |   |   |  |            |               |               |  |  |  |             |             |

**OPTIONS**

|   |  |   |  |  |
|---|--|---|--|--|
| <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>CONTACT MATERIALS</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>FINISH</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>SEALING</p>               | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>LEVERS</p> | <div style="border: 1px solid black; padding: 2px; width: 30px; margin: 0 auto;">—</div> <p>AGENCY APPROVALS</p> |
| <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.

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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 |     | 4-5 |
| 5648M     | ON  | OFF | ON  |
| 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



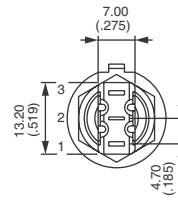
|       |     |     |     |
|-------|-----|-----|-----|
| 5656M | III | -   | I   |
| 5659M | 2-3 | II  | 1-2 |
| 5657M | 5-6 |     | 4-5 |
| 5658M | 8-9 |     | 7-8 |
| 5656M | ON  | OFF | ON  |
| 5659M | MOM | OFF | MOM |
| 5658M | ON  | OFF | MOM |

## SOLDER LUG TERMINALS FOUR POLE

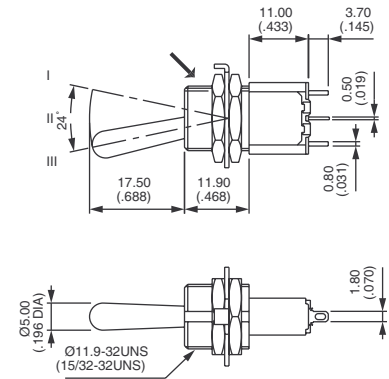


|           |       |    |       |
|-----------|-------|----|-------|
| 5666M     | III   | -  | I     |
| 5669M     | 2-3   | II | 1-2   |
| 5667M     | 5-6   |    | 4-5   |
| 5668M     | 8-9   |    | 7-8   |
| 5664 M*   | 11-12 |    | 10-11 |
| 5664M 1R* | ON    | ON | ON    |
| 5664M 1R* | ON    | ON | MOM   |
| 5664M 2R* | MOM   | ON | MOM   |

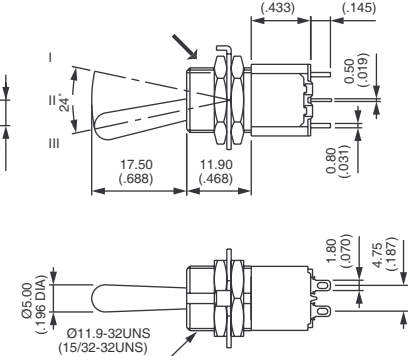
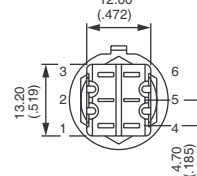
### KEYWAY



### Shown with standard lever

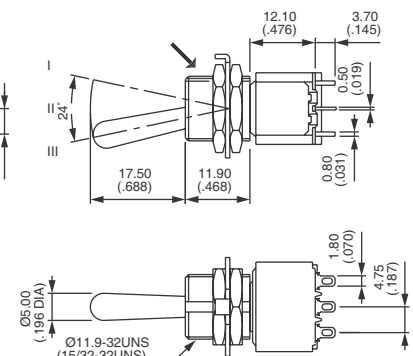
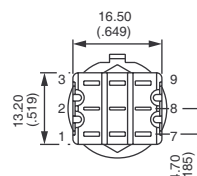


### KEYWAY

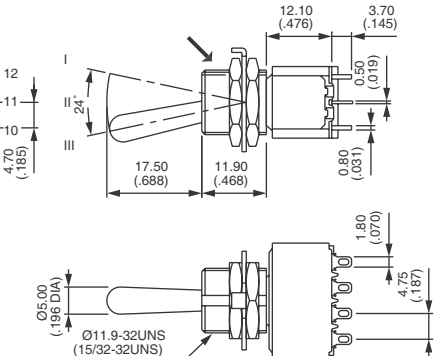
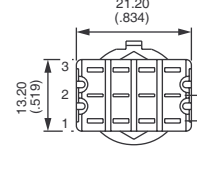


\*Function 4 : DP in 4P case - specify CT or TH connections, see "Technical information" on website.

### KEYWAY



### KEYWAY



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

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## CONTACT MATERIAL



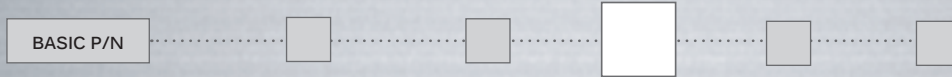
- A Silver
- AD Silver, gold plated
- CD Brass, gold plated

## FINISH

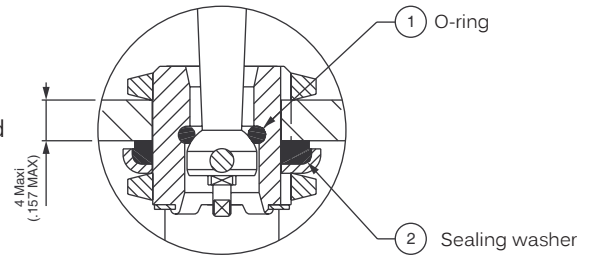


- Blank Nickel plated
- G Black finish on bushing, actuator and hardware

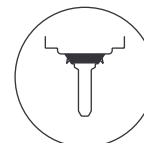
## SEALING



- 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

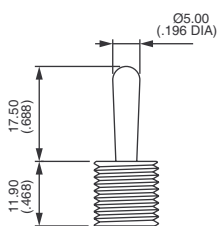


K

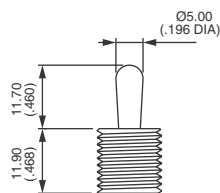


B

## LEVERS



Blank  
Standard

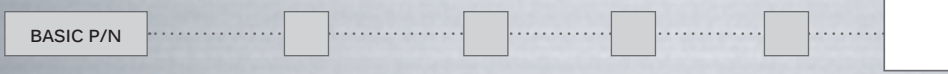


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Miniature toggle switches •  
threaded bushing Ø 11.9 mm

AGENCY APPROVALS



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 5644TH1RAB 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