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)

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MATERIALS

- Case : diallylphthalate (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 currrents, see "Special options".
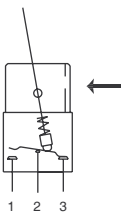- Terminal seal : epoxy

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.
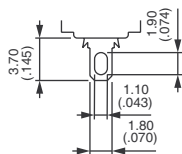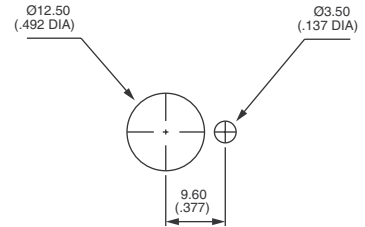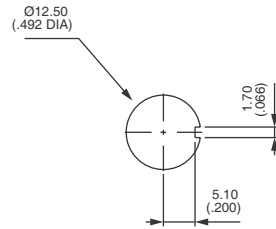
ELECTRICAL FUNCTION

→ KEYWAY

1   2   3

TERMINALS

PANEL CUT-OUT

Ø12.50 (.492 DIA)
Ø3.50 (.137 DIA)
9.60 (.377)

Standard

Ø12.50 (.492 DIA)
1.70 (.066)
5.10 (.200)

With **K** sealing option

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BUILD YOUR PART NUMBER

BASIC PART NUMBER

| 5 | ___ | ___ | ___ | ___ | ___ | ___ |

SERIES

TERMINALS

| 2 | Straight PC terminals, 4.70 (.185) terminal spacing - On request. |
| 6 | Solder lug terminals |

NUMBER OF POLES

3	Single pole
4	Double pole
5	Three pole
6	Four pole

ELECTRICAL FUNCTIONS

6	ON	-	ON
9	ON	OFF	ON
7	MOM	OFF	MOM

| 8 | ON | OFF | MOM |
| 4 | ON ON MOM | ON ON ON | ON MOM ▲ MOM ▲ |

Function 4
▲ Must not have blank in «momentary» box.
Wiring diagrams, see Technical information, on website.

TERMINALS

| M | Solder lugs with Ø 11.9 (15/32) bushing |

CONNECTIONS FOR FUNCTION 4

| TH | Standard |
| CT | Reversed |

For functions 4, 4-1R, 4-2R (leave blank for all other functions). Wiring diagrams, see Technical information on website.

MOMENTARY FOR FUNCTION 4

| 1R | ON ON MOM |
| 2R | MOM ON MOM |

Leave blank for other functions.

OPTIONS

| ___ | ___ | ___ | ___ | ___ |

CONTACT MATERIALS

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
K	Front panel sealing by one O-ring and sealing washer
B	Epoxy sealed terminals

LEVERS

| Blank (std) | Length 17.5 (.688) |
| -27 | Length 11.7 (.460) |

AGENCY APPROVALS

| UL, CSA | Availability : Consult factory for details of approved models. |

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

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

SOLDER LUG TERMINALS DOUBLE POLE

	III 2-3 5-6	II	I 1-2 4-5
5646M	ON	-	ON
5649M	ON	OFF	ON
5647M	MOM	OFF	MOM
5648M	ON	OFF	MOM
5644 M*	ON	ON	ON
5644M 1R*	ON	ON	MOM
5644M 2R*	MOM	ON	MOM

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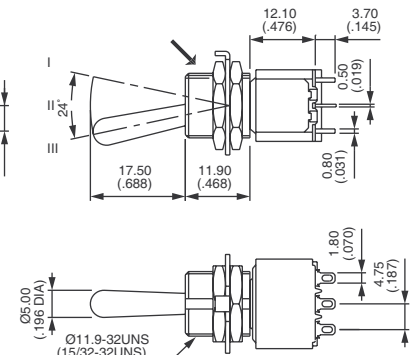
SOLDER LUG TERMINALS THREE POLE

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

SOLDER LUG TERMINALS FOUR POLE

	III 2-3 5-6 8-9 11-12	II	I 1-2 4-5 7-8 10-11
5666M	ON	-	ON
5669M	ON	OFF	ON
5667M	MOM	OFF	MOM
5668M	ON	OFF	MOM
5664 M*	ON	ON	ON
5664M 1R*	ON	ON	MOM
5664M 2R*	MOM	ON	MOM
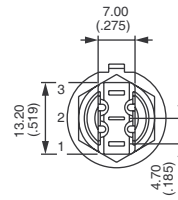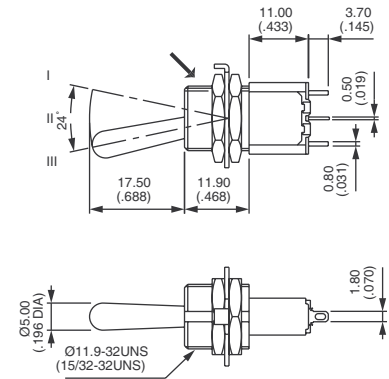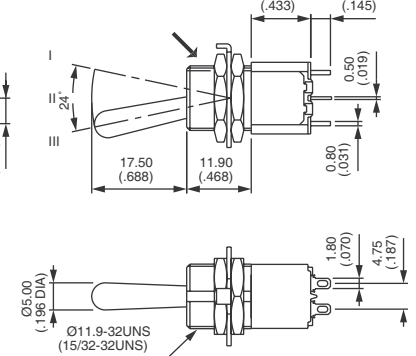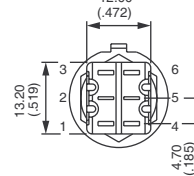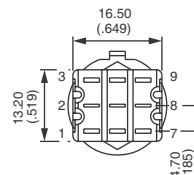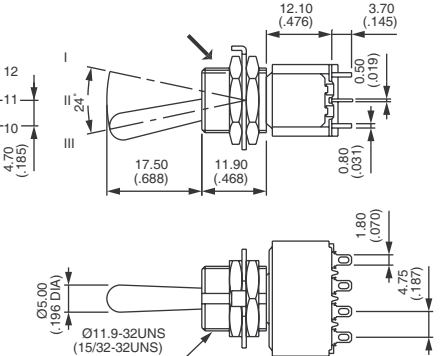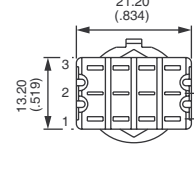
*Function 4 : DP in 4P case - specify CT or TH connections, see "Technical information" on website.

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CONTACT MATERIAL

BASIC P/N						

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

FINISH

BASIC P/N						

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

SEALING

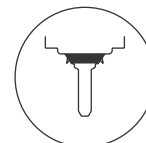| BASIC P/N						

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
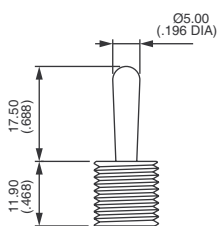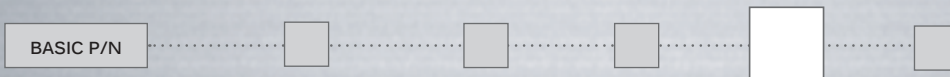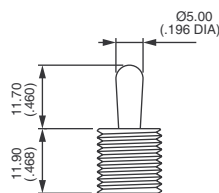
KB   Combined sealings

1 O-ring

2 Sealing washer

4 Maxi
(.157 MAX)

K

B

LEVERS

BASIC P/N						

Ø5.00
(.196 DIA)

17.50
(.688)

11.90
(.468)

Blank
Standard

Ø5.00
(.196 DIA)

11.70
(.460)

11.90
(.468)
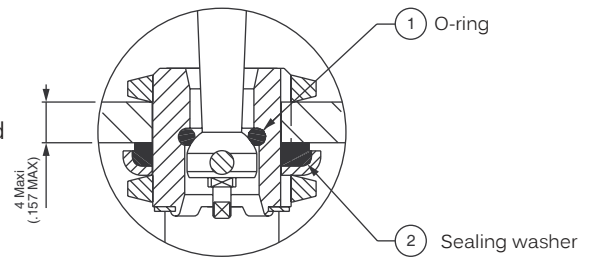
-27

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AGENCY APPROVALS

| BASIC P/N | | | | | | |

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).

APEM