## THE WIDEST RANGE IN MINIATURE SWITCHES

- 17 actuators including toggles, paddle levers and locking levers in different lengths.
- Various contact materials for low and high currents.
- 8 functions including maintained and momentary versions.
- 1 to 4 pole configurations.

- 12 terminal types including 9 for PC board mounting. Other types include quick-connect and wire-wrap.
- 6 bushing styles from 6 (.236) plain to 11,9 (15/32) threaded.
- 3 types of finish including military black.

- 3 approvals (UL - CSA - CECC).
- 4 types of sealing for terminal or front panel requirements.
- Numerous accessories available for actuator and bushing options.

# 5000 series

## Toggle switches

*Overview*

OPTIONS

A

| 5 | | | | | | |
|---|---|---|---|---|---|---|

**SERIES**

**Number of poles**

| | |
|---|---|
| **3** | Single pole |
| **4** | Double pole |
| **5** | Three pole |
| **6** | Four pole |

**Terminals and bushing**

| | |
|---|---|
| **0** | Straight PC terminals, 5,08 (.200) terminal spacing, **with Ø 6,35 (1/4)** threaded bushing |
| **1** | Straight PC or quick-connect terminals, 4,70 (.185) terminal spacing, **with Ø 6** (.236) threaded bushing. |
| **2** | Straight PC terminals, 4,70 (.185) terminal spacing, right angle, quick-connect or wire wrap terminals, **with 6,35 (1/4)** threaded bushing |
| **3** | Straight PC terminals, 4 (.157) terminal spacing, **with Ø 6** (.236) threaded bushing |
| **4** | Straight PC terminals, 4 (.157) terminal spacing or right angle terminals , **with Ø 6,35 (1/4)** threaded bushing |
| **5** | Solder lug terminals, **with Ø 6 (.236)** threaded bushing. |
| **6** | Solder lug terminals, **with Ø 6,35 (1/4) or Ø 11,9 (15/32)** threaded bushing. |
| **7** | Solder lug terminals, with Ø 6,35 (1/4) **flatted** bushing. |
| **9** | Straight PC or quick-connect terminals, with Ø 6,35 (1/4) **flatted** bushing, 4,70 (.185) terminal spacing. |

**Terminals**

| | |
|---|---|
| **Blank** | Solder lugs or straight PC depending on model |
| **M** | Solder lugs with Ø 11,9 (15/32) bushing (5600 switches) |
| **MIWR** | Wire wrap (for 5200 switches only) |
| **W** | Right angle, horizontal mounting (5200 - 5400 switches) |
| **WW** | Right angle, vertical mounting (5200 - 5400 switches) |
| **Y ] Y4 ] Y6 ] Y7 ]** | Bracket mounting (5200 switches) |
| **Z** | Quick connect (5200 - 5100 - 5900 switches) |

**Electrical functions**

| | | | |
|---|---|---|---|
| **6** | ON | - | ON |
| **9** | ON | OFF | ON |
| **7** | MOM | OFF | MOM |
| **8** | ON | OFF | MOM |
| **2** | ON | - | MOM |
| **4** | ON | ON | ON |
| | ON | ON | MOM ▲ |
| | MOM | ON | MOM ▲ |

**Function 4**
Must not have blank in "connections" box.
. ▲ Must not have blank in "momentary" box.

**Connections for function 4**

| | |
|---|---|
| **TH** | Standard |
| **CT** | Reversed |

See wiring diagrams end of catalogue.
. For functions 4, 4-1R, 4-2R (leave blank for all other functions).

**Momentary for function 4**

| | | | |
|---|---|---|---|
| **1R** | ON | ON | MOM |
| **2R** | MOM | ON | MOM |

Leave blank for other functions.

**ABOUT THIS SERIES**
On the following pages, you will find successively :
- model structure of switches with threaded bushing
- model structure of switches with plain bushing
- options in the same order as in above chart

**Dimensions** : first dimensions are in mm while inches are shown as bracketed numbers.

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

# 5000 series

## Toggle switches

*Overview*



### Finish

| | |
|---|---|
| **Blank** | Bright chrome finish |
| **G** | Black finish on bushing, actuator and hardware. |

### Fluorescent tip

| | |
|---|---|
| **Blank** | None |
| **038** | White fluorescent tip to lever |

Available with matt black finish (G) only.

### Special options

| | |
|---|---|
| **Blank** | No special requirement |
| **X408** | Front panel sealing by two O-rings |
| **X404** | Horizontal right angle with reduced overall dimensions |

Other : specific bushing height, PC terminal length, finish, ratings, etc... See following pages.

### Caps and paddles

| Caps | Length |
|---|---|
| **U270** | 11 (.433) |
| **U1710** | 7,3 (.287) |
| Paddles | |
| **U240N** | 12,4 (.488) |
| **U290N** | 20 (.787) |
| **U390N** | 21,5 (.846) |

### Contact materials

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

For peak currents, see X814, under Special Options.

### Sealing

| | |
|---|---|
| **Blank** | No sealing except where standard |
| **B** | Epoxy sealed terminals |
| **K** | Front panel sealing by one O-ring and sealing washer |

Sealing by two O-rings, see X408 under "Special options".

### Levers

| Length with | threaded bushing | plain bushing |
|---|---|---|
| **Blank** (std) | 10,5 (.413) | 13,5 (.531) |
| **-2** | 16 (.629) | 19 (.748) |
| **-7** | - | 6,6 (.259) |
| **-8** (flat) | 21,3 (.838) | - |
| **-9** (flat) | 11,4 (.448) | - |
| **-12** (flat) | 6,3 (.248) | - |
| **-16** | 5,5 (.216) | 8,5 (.334) |
| **-17** | 7 (.275) | 10 (.393) |
| **-21 (+ U640)** insulated | 21,3 (.838) | - |
| **-22** | 21,3 (.838) | - |
| **-23** | 14 (.551) | - |
| **Blank** (large) | 17,5 (.688) | - |
| **-25** | 16,30 (.642) | |
| **-27** (large) | 11,7 (.460) | - |
| **-4N** | 9 (.354) | 12 (.472) |

4N for use with paddle actuators only.

### Locking levers

| | |
|---|---|
| **-1V** | 1 locked position |
| **-2V** | 2 locked positions |
| **-3V** | 3 locked positions |

Other, consult factory.
For models with Ø 6,35 (1/4) bushing.

### Approvals

**UL**
**CSA**
**CECC**

Availability :
Consult factory for details of approved models.

**Sealing boots** are available. They are presented in section H.

**Mounting accessories** : standard hardware supplied with all models with Ø 6,35 (1/4) or Ø 6 (.236) threaded bushing : 2 hex nuts 8 mm (.314) across flats, 1 locking ring and 1 lockwasher.
Standard and special hardware available are presented in section I.

**Packaging unit** : 25 pieces or 50 pieces depending on models.

# 5000 series

## Toggle switches

*Specifications*

A

### ELECTRICAL SPECIFICATIONS

- Current/voltage rating with resistive load :

| Contact | Maximum | Minimum | Level* |
|---|---|---|---|
| Silver (A) | 4A 30VDC | 50mA 10VDC | III and IV |
| Silver,<br>gold plated (AD) | 4A 30VDC<br>Gold plating withstands up to 100mA 30VDC | 10mA 50mV<br>10µA 5V | I to IV |
| Brass,<br>gold plated (CD) | 0,4 VA at 20VAC or DC | 10mA 50mV<br>10µA 5V | I and II |

- For inductive, lamp or capacitive load, consult factory.
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- 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

* For details, see Technical Information, end of catalogue.

### MATERIALS

- Case : diallylphthalate (DAP) or high temperature plastic material (UL94-V0)
- Actuator : brass, nickel plated
- Paddles : UL94HB polyamide
- Lever caps : vinyl
- 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

### GENERAL SPECIFICATIONS

- Torque : 1,25 Nm (.922 Ft.lb) max. applied to nut
- Panel thickness : 2,5 mm (.098) with 2 nuts - 4 mm (.157) with 1 nut
- Operating temperature : -40°C to +85°C

### AGENCY APPROVALS/PREFERENTIAL LIST

CECC 96201-007

3A 250VAC, 6A 125VAC

For **VDE**, refer to 55000 series.

**NATO**

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

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

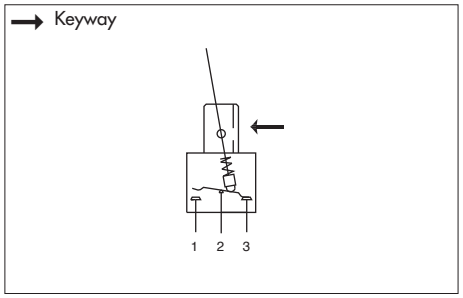
MODEL STRUCTURE

# 5000 series

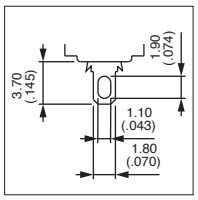
## Toggle switches - solder lug terminals

*Threaded bushing Ø 6,35 (1/4) : 5600*

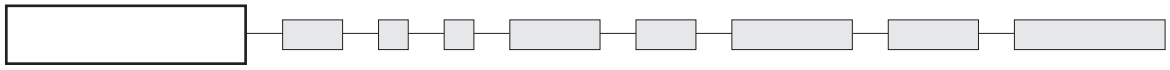





- 1, 2, 3 and 4 pole configurations



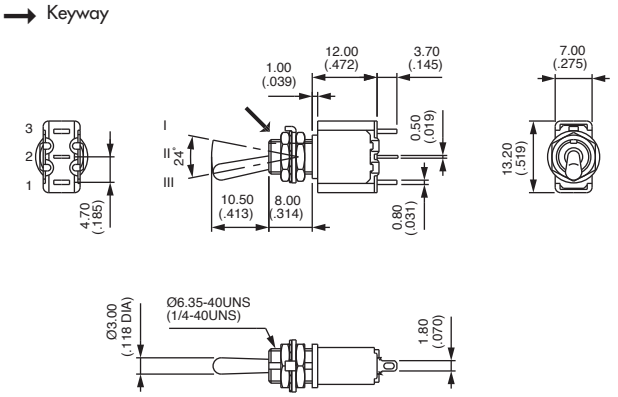

**MODEL STRUCTURE**



Shown with standard lever

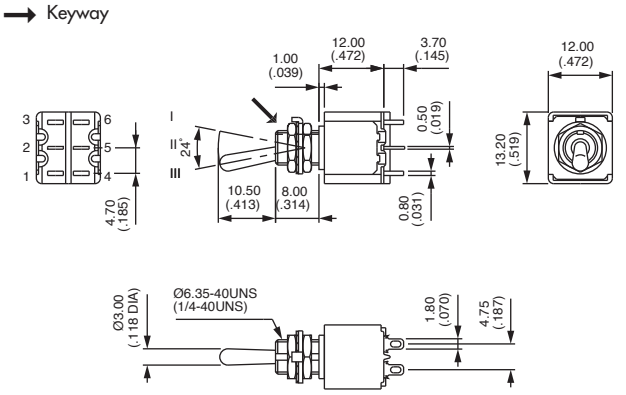
## Single pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5636** | ON | - | ON |
| **5639** | ON | OFF | ON |
| **5637** | MOM | OFF | MOM |
| **5638** | ON | OFF | MOM |
| **5632** | ON | - | MOM |




## Double pole

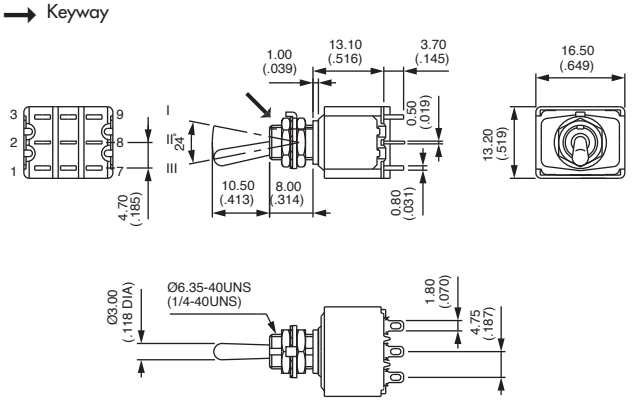
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5646** | ON | - | ON |
| **5649** | ON | OFF | ON |
| **5647** | MOM | OFF | MOM |
| **5648** | ON | OFF | MOM |
| **5642** | ON | - | MOM |
| **5644*** | ON | ON | ON |
| **5644 1R*** | ON | ON | MOM |
| **5644 2R*** | MOM | ON | MOM |




* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

## Three pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| **5656** | ON | - | ON |
| **5659** | ON | OFF | ON |
| **5657** | MOM | OFF | MOM |
| **5658** | ON | OFF | MOM |
| **5652** | ON | - | MOM |



# 5000 series

## Toggle switches - solder lug terminals

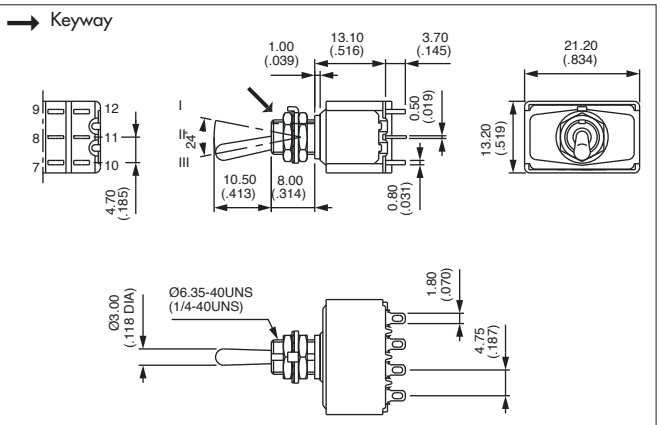
*Threaded bushing Ø 6,35 (1/4) : 5600*

MODEL STRUCTURE

A

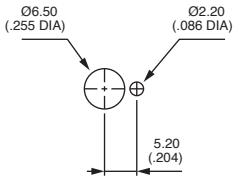
### Four pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| | 11-12 | | 10-11 |
| **5666** | ON | - | ON |
| **5669** | ON | OFF | ON |
| **5667** | MOM | OFF | MOM |
| **5668** | ON | OFF | MOM |
| **5662** | ON | - | MOM |
| **5664*** | ON | ON | ON |
| **5664 1R*** | ON | ON | MOM |
| **5664 2R*** | MOM | ON | MOM |

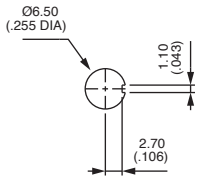



*Function 4 : DP in 4P case - specify CT or TH connections, see end of catalogue.

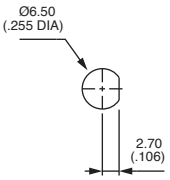
### PANEL CUT-OUT




Standard




With **K** sealing option




With **X408** sealing option

Diagram as per 5600 model

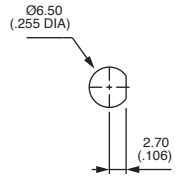
## 5700 models

- **Flatted bushing Ø 6,35 mm (1/4)**
- 1, 2, 3 and 4 pole configurations

**MODEL STRUCTURE**

For model structure numbers, refer to **5600** models and replace 6 with 7.

**PANEL CUT-OUT**




Standard or
with **K** sealing option

Diagram as per 5600 model

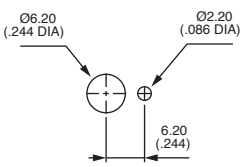
## 5500 models

- **Threaded bushing Ø 6 mm x 0.75 SI (.236 x 0.75 IS)**
- 1, 2, 3 and 4 pole configurations

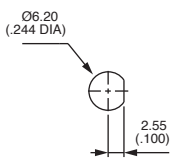
**MODEL STRUCTURE**

For model structure numbers, refer to **5600** models and replace 6 with 5.

**PANEL CUT-OUT**




Standard



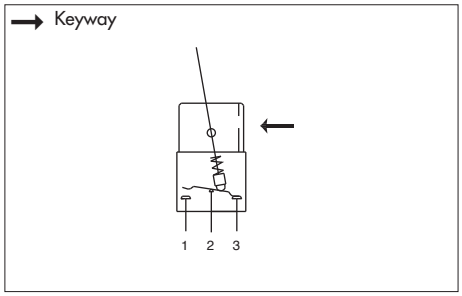

With **X408** sealing option

# 5000 series

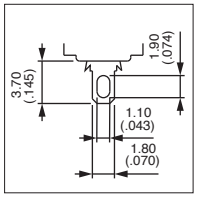
## Toggle switches - solder lug terminals

*Threaded bushing Ø 11,9 (15/32) : 5600M*

MODEL STRUCTURE

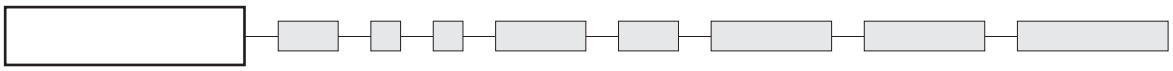



- 1, 2, 3 and 4 pole configurations
- Supplied with 2 hex nuts and 1 locking ring
- Panel thickness up to 6 mm (.236)




A

**MODEL STRUCTURE**

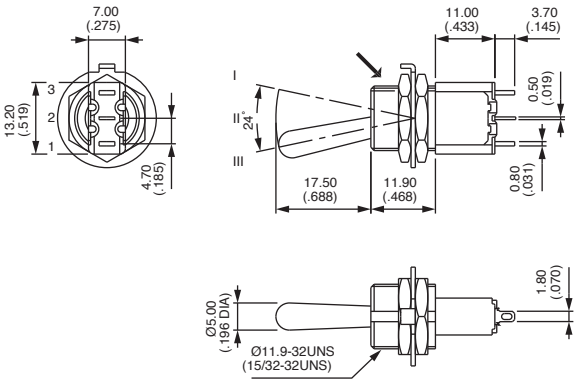


Shown with standard lever

### Single pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5636M** | ON | - | ON |
| **5639M** | ON | OFF | ON |
| **5637M** | MOM | OFF | MOM |
| **5638M** | ON | OFF | MOM |
| **5632M** | ON | - | MOM |

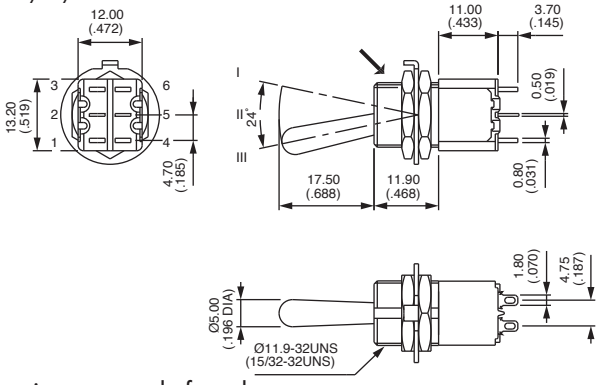
Keyway




### Double pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5646M** | ON | - | ON |
| **5649M** | ON | OFF | ON |
| **5647M** | MOM | OFF | MOM |
| **5648M** | ON | OFF | MOM |
| **5642M** | ON | - | MOM |
| **5644M*** | ON | ON | ON |
| **5644M 1R*** | ON | ON | MOM |
| **5644M 2R*** | MOM | ON | MOM |

Keyway

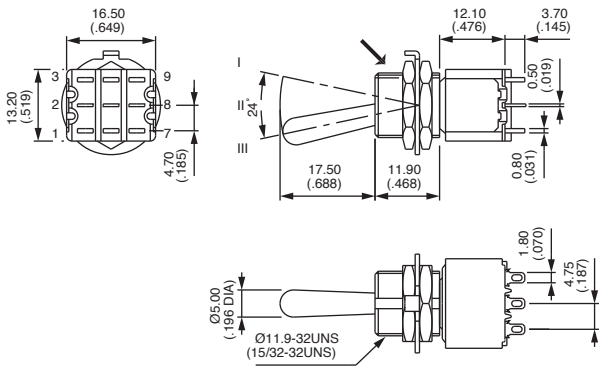



* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

### Three pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| **5656M** | ON | - | ON |
| **5659M** | ON | OFF | ON |
| **5657M** | MOM | OFF | MOM |
| **5658M** | ON | OFF | MOM |
| **5652M** | ON | - | MOM |

Keyway



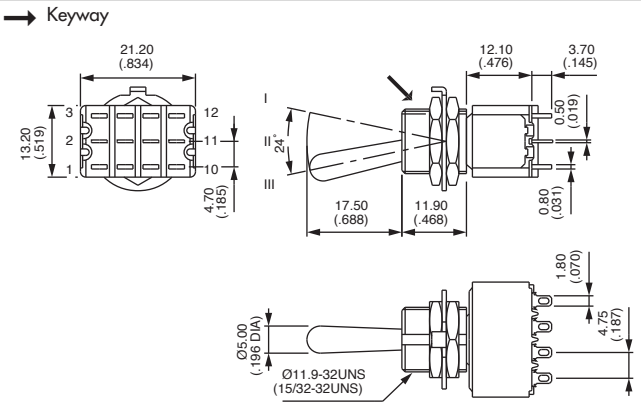
# 5000 series

## Toggle switches - solder lug terminals

*Threaded bushing Ø 11,9 (15/32) : 5600M*

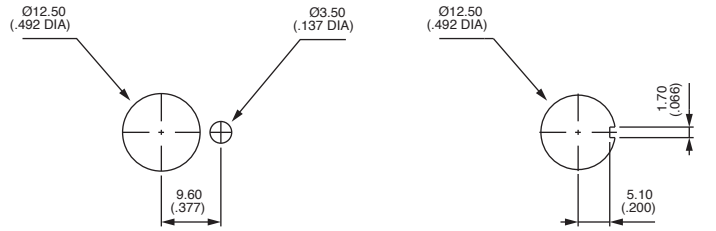
### Four pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| | 11-12 | | 10-11 |
| **5666M** | ON | - | ON |
| **5669M** | ON | OFF | ON |
| **5667M** | MOM | OFF | MOM |
| **5668M** | ON | OFF | MOM |
| **5662M** | ON | - | MOM |
| **5664M*** | 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 end of catalogue.

### PANEL CUT-OUT



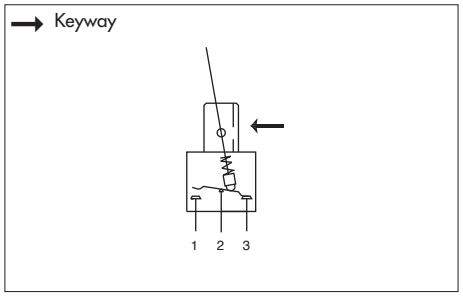

OTHER : M bushing can be combined with other types such as : 5200, Z, MIWR... Consult factory.

# 5000 series

## Toggle switches - straight PC terminals

*Threaded bushing Ø 6,35 (1/4) : 5200*

MODEL STRUCTURE

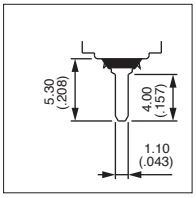



- **Terminal spacing 4,7 mm (.185)**
- 1, 2, 3 and 4 pole configurations
- Epoxy sealed terminals standard

For new projects, we recommend switches with support bracket (option Y) which holds the switch securely on the PCB.

Other terminal lengths presented under "Special options".

Also available with plain bushing, see "Special options" X371



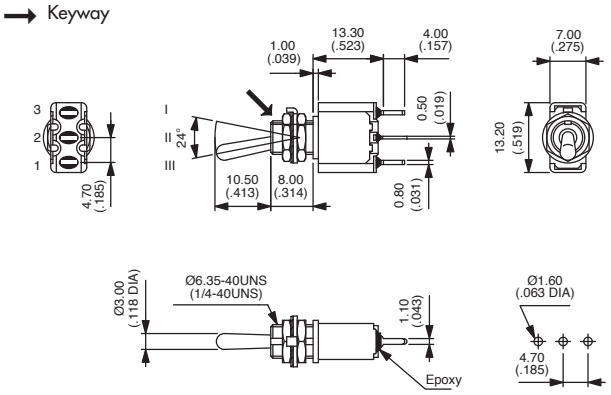

A

**MODEL STRUCTURE**

Shown with standard lever

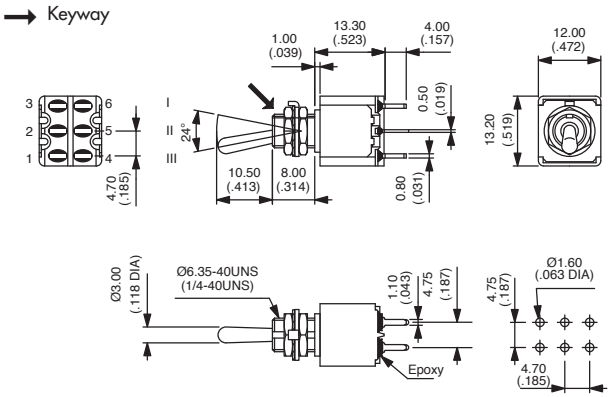
### Single pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5236 B** | ON | - | ON |
| **5239 B** | ON | OFF | ON |
| **5237 B** | MOM | OFF | MOM |
| **5238 B** | ON | OFF | MOM |
| **5232 B** | ON | - | MOM |




### Double pole

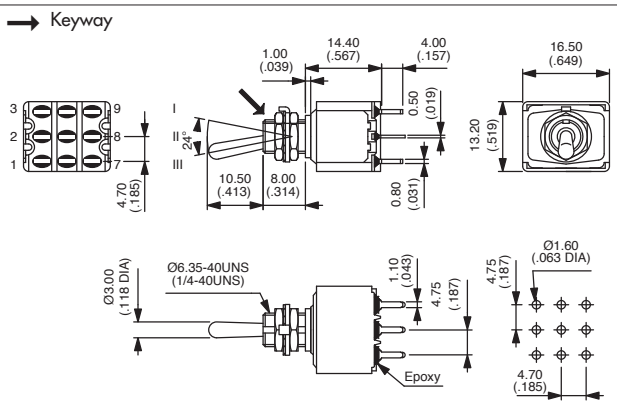
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5246 B** | ON | - | ON |
| **5249 B** | ON | OFF | ON |
| **5247 B** | MOM | OFF | MOM |
| **5248 B** | ON | OFF | MOM |
| **5242 B** | ON | - | MOM |
| **5244 B*** | ON | ON | ON |
| **5244 1R B*** | ON | ON | MOM |
| **5244 2R B*** | MOM | ON | MOM |




*Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

### Three pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| **5256 B** | ON | - | ON |
| **5259 B** | ON | OFF | ON |
| **5257 B** | MOM | OFF | MOM |
| **5258 B** | ON | OFF | MOM |
| **5252 B** | ON | - | MOM |



# 5000 series

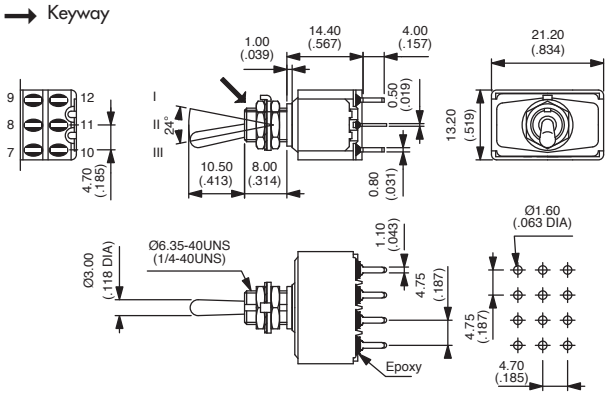
## Toggle switches - straight PC terminals

*Threaded bushing Ø 6,35 (1/4) : 5200 - 5000*



### Four pole

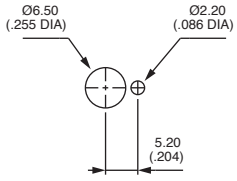
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| | 11-12 | | 10-11 |
| **5266 B** | ON | - | ON |
| **5269 B** | ON | OFF | ON |
| **5267 B** | MOM | OFF | MOM |
| **5268 B** | ON | OFF | MOM |
| **5262 B** | ON | - | MOM |
| **5264 B*** | ON | ON | ON |
| **5264 1R B*** | ON | ON | MOM |
| **5264 2R B*** | MOM | ON | MOM |



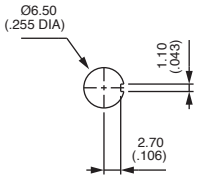

*Function 4 : DP in 4P case - specify CT ot TH connections, see end of catalogue.

### PANEL CUT-OUT

**5200 - 5000 - 5400**




Standard

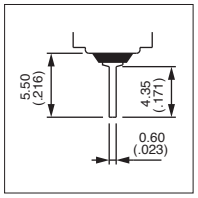



With **K** sealing option

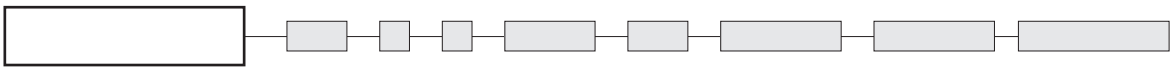
Diagram as per 5200 model

## 5000 models

- **Terminal spacing 5,08 mm (.200)**
- Epoxy sealed terminals standard
- 1 and 2 pole configurations



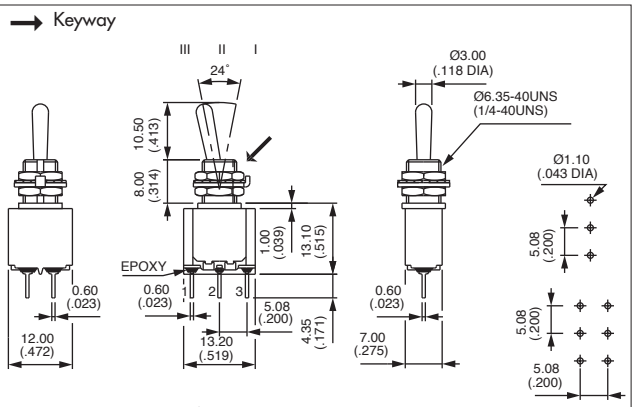

**MODEL STRUCTURE**



Shown with standard lever

### Terminal spacing 5,08 (.200) - single and double pole

| | | III | II | I |
|---|---|---|---|---|
| | | 2-3 | | 1-2 |
| | | 5-6 | | 4-5 |
| Single pole | Double pole | | | |
| **5036** | **5046** | ON | - | ON |
| **5039** | **5049** | ON | OFF | ON |
| **5037** | **5047** | MOM | OFF | MOM |
| **5038** | **5048** | ON | OFF | MOM |
| **5032** | **5042** | ON | - | MOM |
| | **5044*** | ON | ON | ON |
| | **5044 1R*** | ON | ON | MOM |
| | **5044 2R*** | MOM | ON | MOM |




*Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

# 5000 series

## Toggle switches - straight PC terminals

MODEL STRUCTURE

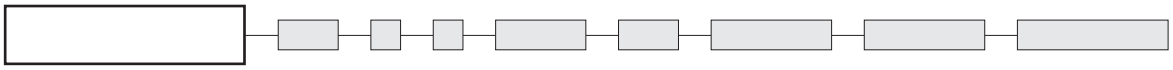
A

Diagram, as per 5200 model

## 5400 models

- **Threaded bushing Ø 6,35 mm (1/4)**
- **Terminal spacing 4 mm (.157)**
- 1, 2, 3 and 4 pole configurations

**MODEL STRUCTURE**

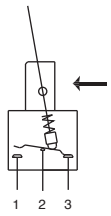


For model structure numbers, refer to **5200** models and replace 2 with 4.

Panel cut-out, see 5200.

---

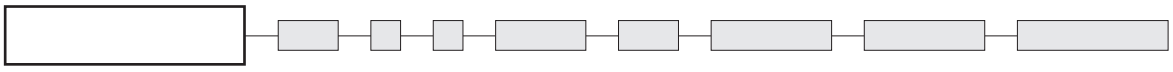
→ Flat




## 5900 models

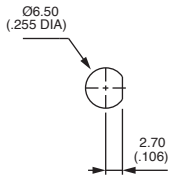
- **Flatted bushing Ø 6,35 mm (1/4)**
- **Terminal spacing 4,7 mm (.185)**
- 1, 2, 3 and 4 pole configurations

**MODEL STRUCTURE**

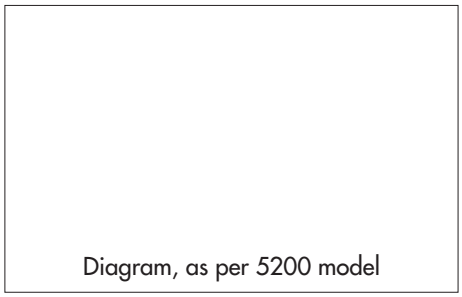


For model structure numbers, refer to **5200** models and replace 2 with 9.

**PANEL CUT-OUT**




Standard or
with **K** sealing option

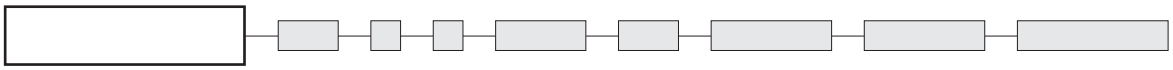



## 5100 models

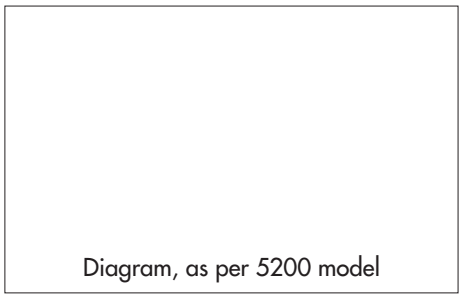
- **Threaded bushing Ø 6 mm x 0.75 SI (.236 x 0.75 IS)**
- **Terminal spacing 4,7 mm (.185)**
- 1, 2, 3 and 4 pole configurations



**MODEL STRUCTURE**



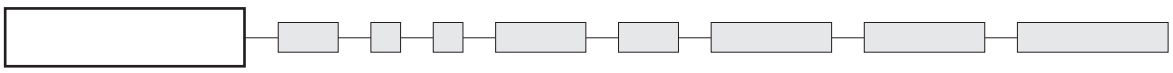
For model structure numbers, refer to **5200** models and replace 2 with 1.
Panel cut-out, see below.




## 5300 models

- **Threaded bushing Ø 6 mm x 0.75 SI (.236 x 0.75 IS)**
- **Terminal spacing 4 mm (.157)**
- 1, 2, 3 and 4 pole configurations

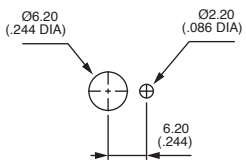
**MODEL STRUCTURE**



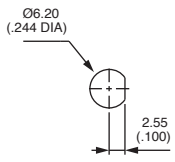
For model structure numbers, refer to **5200** models and replace 2 with 3.

**PANEL CUT-OUT**

**5100 - 5300**




Standard



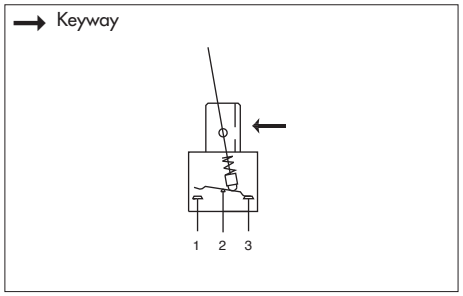

With **X408** sealing option

# 5000 series

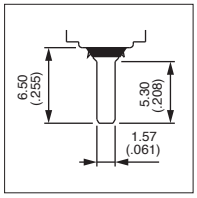
## Toggle switches - quick-connect terminals

*Threaded bushing Ø 6,35 (1/4) : 5200Z*

MODEL STRUCTURE

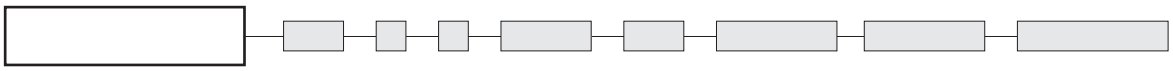



- **Terminal spacing 4,7 mm (.185)**
- Epoxy sealed terminals standard
- 1and 2 pole configurations




A

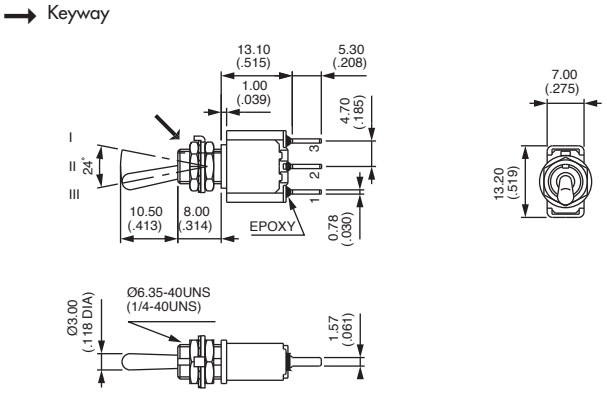
**MODEL STRUCTURE**



Shown with standard lever

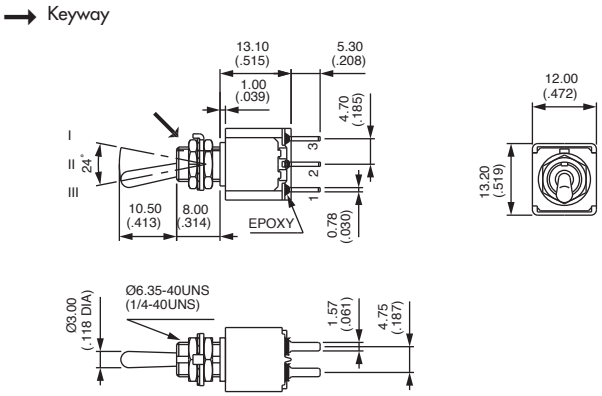
### Single pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5236Z** | ON | - | ON |
| **5239Z** | ON | OFF | ON |
| **5237Z** | MOM | OFF | MOM |
| **5238Z** | ON | OFF | MOM |
| **5232Z** | ON | - | MOM |



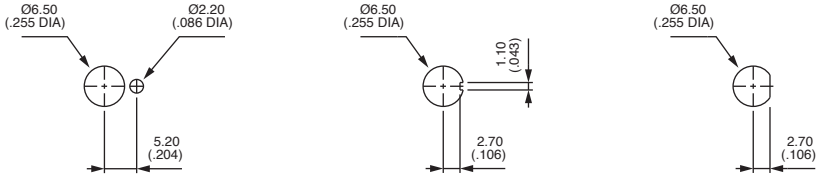

### Double pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5246Z** | ON | - | ON |
| **5249Z** | ON | OFF | ON |
| **5247Z** | MOM | OFF | MOM |
| **5248Z** | ON | OFF | MOM |
| **5242Z** | ON | - | MOM |
| **5244Z*** | ON | ON | ON |
| **5244Z 1R*** | ON | ON | MOM |
| **5244Z 2R*** | MOM | ON | MOM |




*Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

### PANEL CUT-OUT




Standard

With **K** sealing option

With **X408** sealing option

Diagram, as per 5900 model

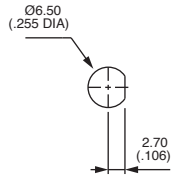
## 5900Z models

- **Flatted bushing Ø 6,35 mm (1/4)**
- Terminal spacing 4,7 mm (.185)
- Epoxy sealed terminals standard
- 1and 2 pole configurations

**MODEL STRUCTURE**

For model structure numbers, refer to **5200Z** models and replace 2 with 9.

**PANEL CUT-OUT**




Standard or
with **K** sealing option

Diagram, as per 5200 model

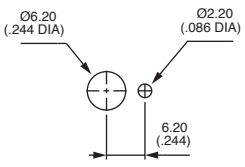
## 5100Z models

- **Threaded bushing Ø 6 mm x 0.75 SI (.236 x 0.75 IS)**
- Terminal spacing 4,7 mm (.185)
- Epoxy sealed terminals standard
- 1and 2 pole configurations

**MODEL STRUCTURE**

For model structure numbers, refer to **5200Z** models and replace 2 with 1.

**PANEL CUT-OUT**



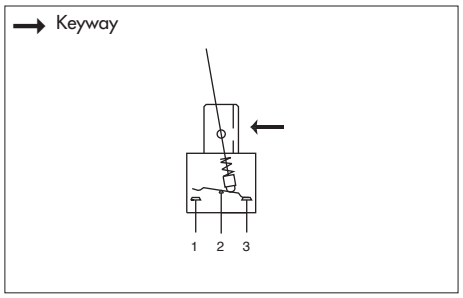

Standard

# 5000 series

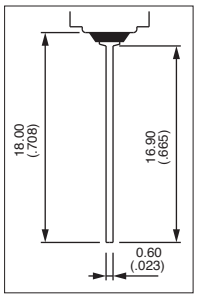
## Toggle switches - wire-wrap terminals

*Threaded bushing Ø 6,35 (1/4) : 5200MIWR*

MODEL STRUCTURE




- **Terminal spacing 5,08 mm (.200)**
- Epoxy sealed terminals standard
- 1and 2 pole configurations
- Can also be used as extended PCB terminals



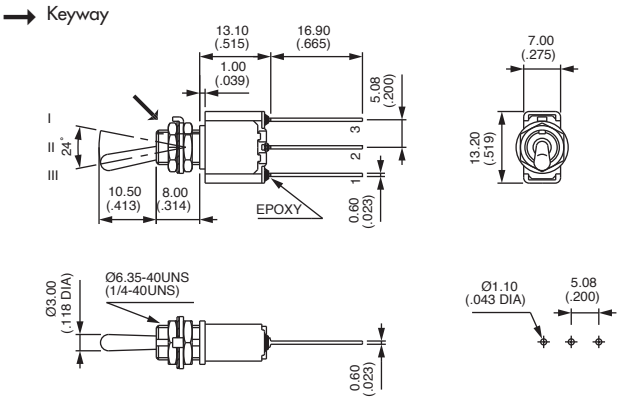

A

**MODEL STRUCTURE**

Shown with standard lever

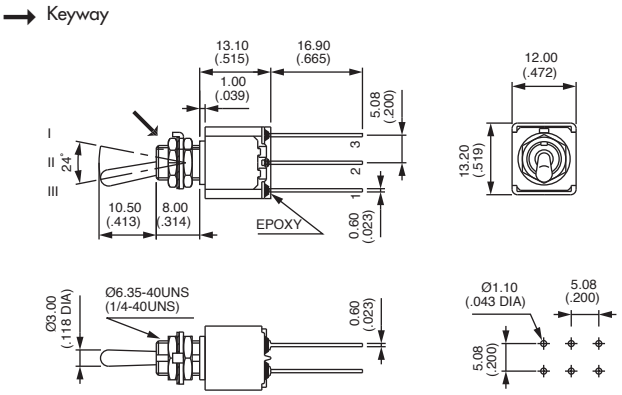
### Terminal spacing 5,08 (.200) - single pole

| | III 2-3 | II | I 1-2 |
|---|---|---|---|
| **5236MIWR** | ON | - | ON |
| **5239MIWR** | ON | OFF | ON |
| **5237MIWR** | MOM | OFF | MOM |
| **5238MIWR** | ON | OFF | MOM |
| **5232MIWR** | ON | - | MOM |



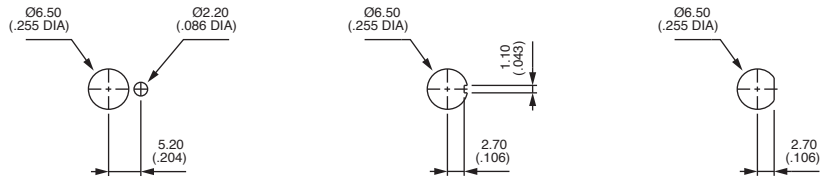

### Terminal spacing 5,08 (.200) - double pole

| | III 2-3 5-6 | II | I 1-2 4-5 |
|---|---|---|---|
| **5246MIWR** | ON | - | ON |
| **5249MIWR** | ON | OFF | ON |
| **5247MIWR** | MOM | OFF | MOM |
| **5248MIWR** | ON | OFF | MOM |
| **5242MIWR** | ON | - | MOM |
| **5244 MIWR*** | ON | ON | ON |
| **5244 1R MIWR*** | ON | ON | MOM |
| **5244 2R MIWR*** | MOM | ON | MOM |




*Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

### PANEL CUT-OUT




Standard

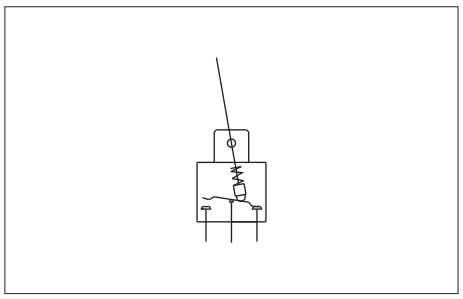
With **K** sealing option

With **X408** sealing option

# 5000 series

## Toggle switches - plain bushing

*Right angle terminals - horizontal : 5200W*

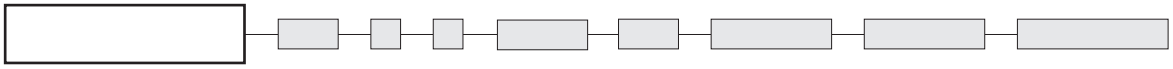


- **Terminal spacing 4,7 mm (.185)**
- 1, 2 and 3 pole configurations

Special switch **5200WX404** with reduced overall dimensions is presented under "Special options".



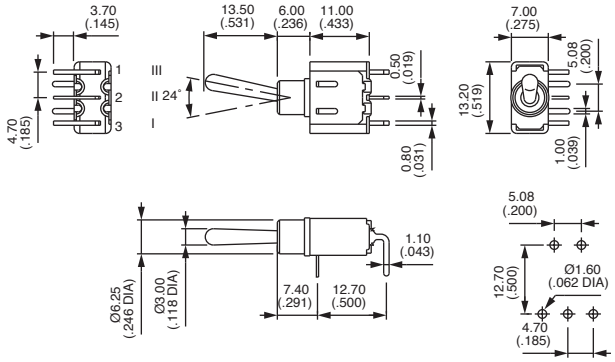
**MODEL STRUCTURE**



Shown with standard lever

### Single pole

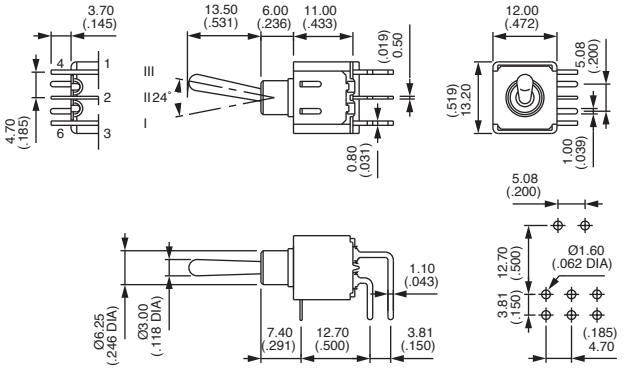
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5236W** | ON | - | ON |
| **5239W** | ON | OFF | ON |
| **5237W** | MOM | OFF | MOM |
| **5238W** | ON | OFF | MOM |
| **5232W** | ON | - | MOM |




### Double pole

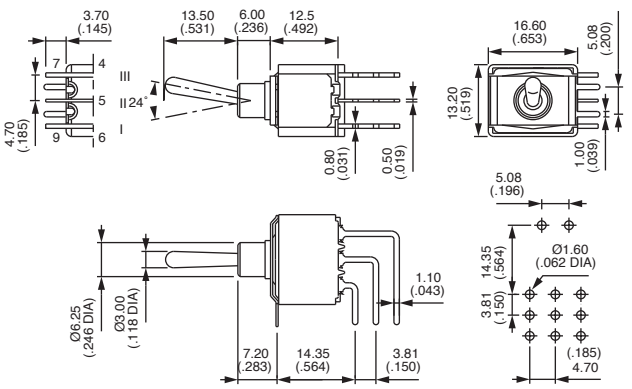
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5246W** | ON | - | ON |
| **5249W** | ON | OFF | ON |
| **5247W** | MOM | OFF | MOM |
| **5248W** | ON | OFF | MOM |
| **5242W** | ON | - | MOM |
| **5244W*** | ON | ON | ON |
| **5244W 1R*** | ON | ON | MOM |
| **5244W 2R*** | MOM | ON | MOM |

*Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.




### Three pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| **5256W** | ON | - | ON |
| **5259W** | ON | OFF | ON |
| **5257W** | MOM | OFF | MOM |
| **5258W** | ON | OFF | MOM |
| **5252W** | ON | - | MOM |



# 5000 series

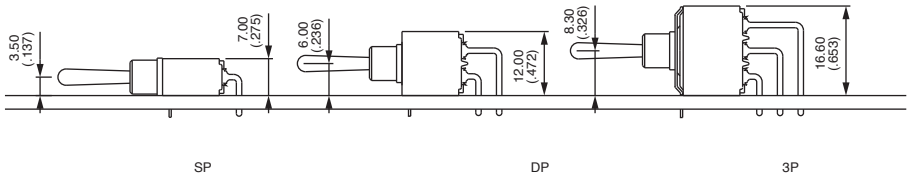
## Toggle switches - plain bushing

*Right angle terminals - horizontal : 5400W*

MODEL STRUCTURE

A

### PCB MOUNTING FOR 5200W

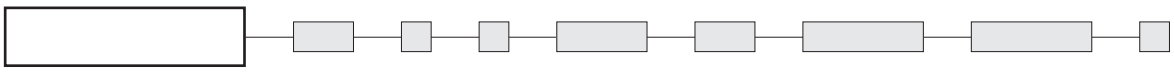



Diagram, as per 5200W model

## 5400W models

- **Terminal spacing 4 mm (.157)**
- 1and 2 pole configurations

**MODEL STRUCTURE**



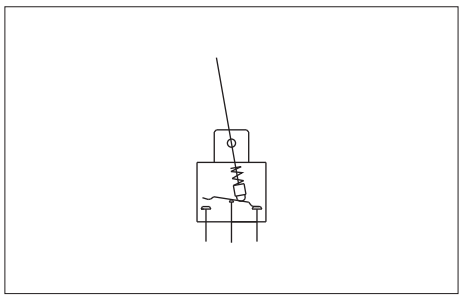
For model structure numbers, refer to **5200W** single and double pole and replace 2 with 4.

### PC LAYOUT

# 5000 series

## Toggle switches - plain bushing

*Right angle terminals - vertical : 5200WW*



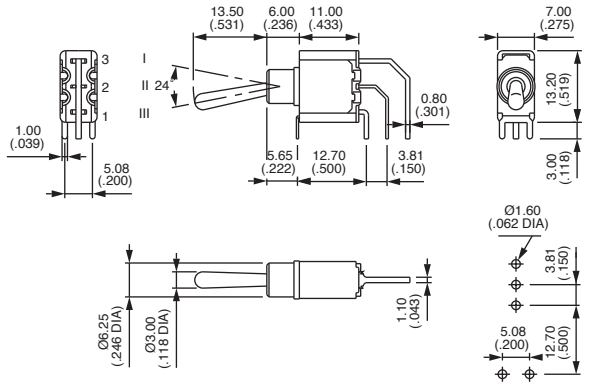
- **Pin spacing 3,81 mm (.150)**
- 1, 2, 3 and 4 pole configurations

**MODEL STRUCTURE**

Shown with standard lever

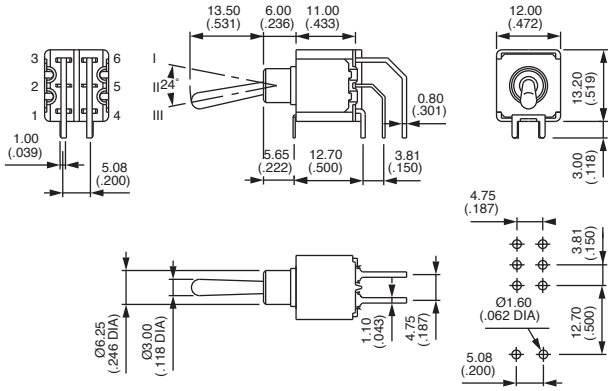
### Single pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5236WW** | ON | - | ON |
| **5239WW** | ON | OFF | ON |
| **5237WW** | MOM | OFF | MOM |
| **5238WW**** | ON | OFF | MOM |
| **5232WW**** | ON | - | MOM |




### Double pole

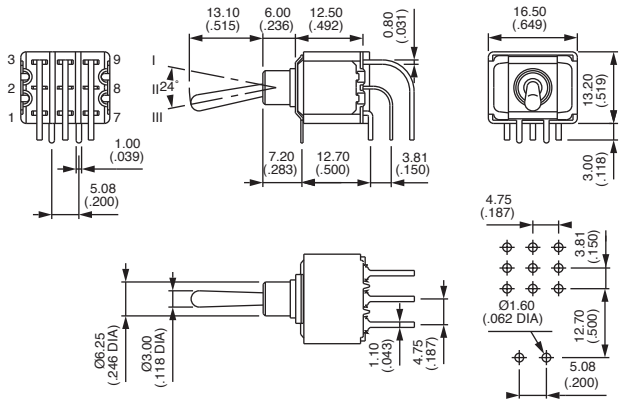
| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5246WW** | ON | - | ON |
| **5249WW** | ON | OFF | ON |
| **5247WW** | MOM | OFF | MOM |
| **5248WW**** | ON | OFF | MOM |
| **5242WW**** | ON | - | MOM |
| **5244WW*** | ON | ON | ON |
| **5244WW 1R*** | ON | ON | MOM |
| **5244WW 2R*** | MOM | ON | MOM |




### Three pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| **5256WW** | ON | - | ON |
| **5259WW** | ON | OFF | ON |
| **5257WW** | MOM | OFF | MOM |
| **5258WW**** | ON | OFF | MOM |
| **5252WW**** | ON | - | MOM |

* and ** : see notes next page.



# 5000 series

## Toggle switches - plain bushing

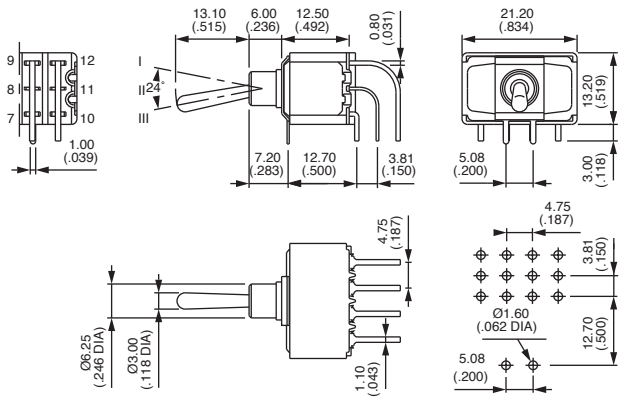
*Right angle terminals - vertical : 5200WW - 5400WW*

MODEL STRUCTURE

A

### Four pole

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| | 8-9 | | 7-8 |
| | 11-12 | | 10-11 |
| **5266WW** | ON | - | ON |
| **5269WW** | ON | OFF | ON |
| **5267WW** | MOM | OFF | MOM |
| **5268WW**** | ON | OFF | MOM |
| **5262WW**** | ON | - | MOM |
| **5264WW*** | ON | ON | ON |
| **5264WW 1R*** | ON | ON | MOM |
| **5264WW 2R*** | MOM | ON | MOM |




* Function 4 : SP in DP case, DP in 4P case - specify CT or TH connections, see end of catalogue.
** Functions 2 and 8 : reversed connection available, consult factory.

#### PCB MOUNTING

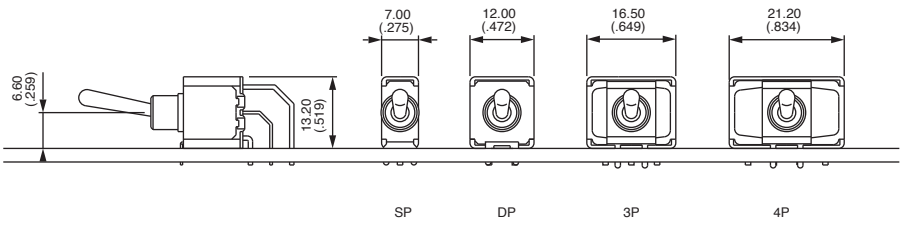
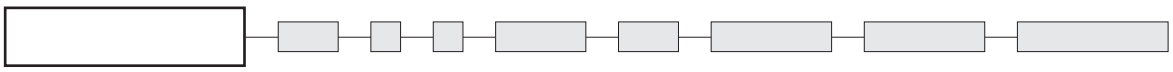



Diagram as per 5200WW model

## 5400WW models

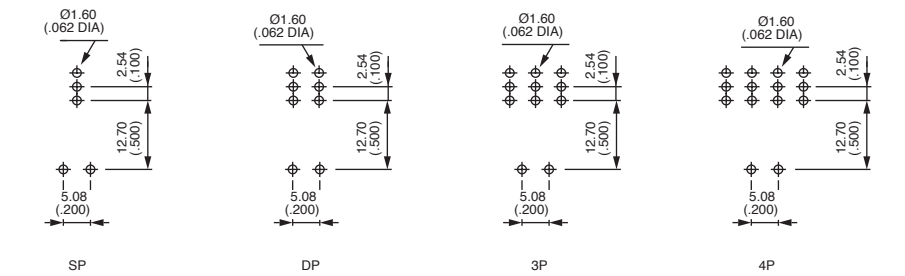
- **Pin spacing 2,54 mm (.100)**
- 1, 2, 3 and 4 pole configurations

**MODEL STRUCTURE**



For model structure numbers, refer to **5200WW** models and replace 2 with 4.

#### PC LAYOUT

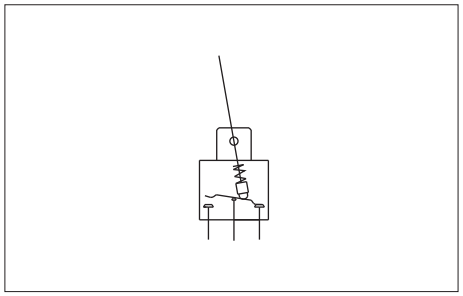


MODEL STRUCTURE

# 5000 series

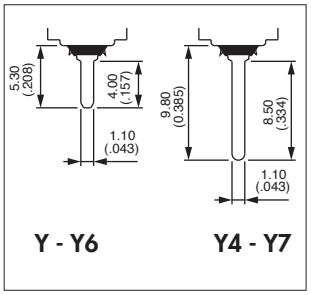
## Toggle switches - plain bushing

*Straight PC terminals - bracket mounting : 5200Y*



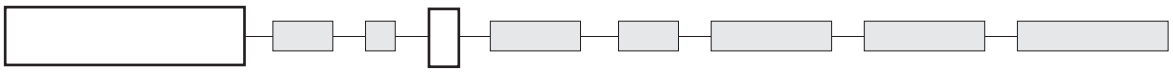
**Brackets reduce mechanical stress on solder joints and increase resistance to vibrations.**
**Bracket material : tin plated steel.**

- Epoxy sealed terminals standard
- 1and 2 pole configurations




A

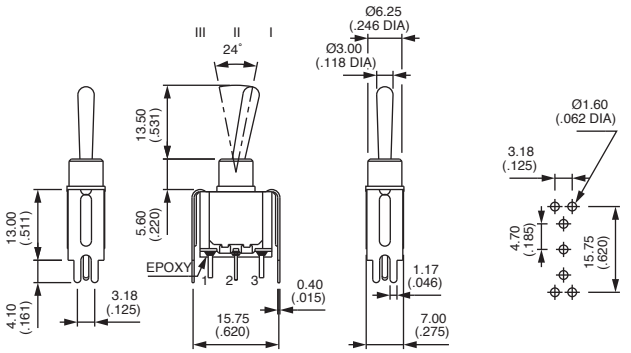
**MODEL STRUCTURE**



Shown with standard lever

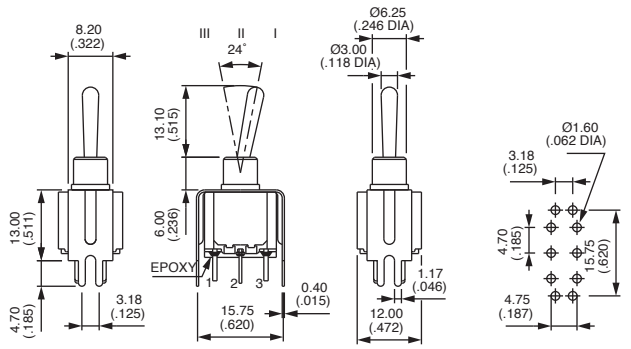
### Short bracket - width 15,75 (.620) - single pole : 5230Y

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| **5236Y B** | ON | - | ON |
| **5239Y B** | ON | OFF | ON |
| **5237Y B** | MOM | OFF | MOM |
| **5238Y B** | ON | OFF | MOM |
| **5232Y B** | ON | - | MOM |




### Short bracket - width 15,75 (.620) - double pole : 5240Y

| | III | II | I |
|---|---|---|---|
| | 2-3 | | 1-2 |
| | 5-6 | | 4-5 |
| **5246Y B** | ON | - | ON |
| **5249Y B** | ON | OFF | ON |
| **5247Y B** | MOM | OFF | MOM |
| **5248Y B** | ON | OFF | MOM |
| **5242Y B** | ON | - | MOM |
| **5244Y B*** | ON | ON | ON |
| **5244Y 1R B*** | ON | ON | MOM |
| **5244Y 2R B*** | MOM | ON | MOM |




* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

# 5000 series

## Toggle switches - plain bushing

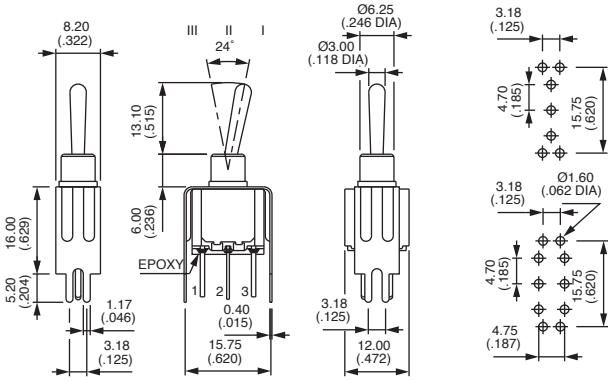
MODEL STRUCTURE

*Straight PC terminals - bracket mounting : 5200Y4 - Y6 - Y7*

A

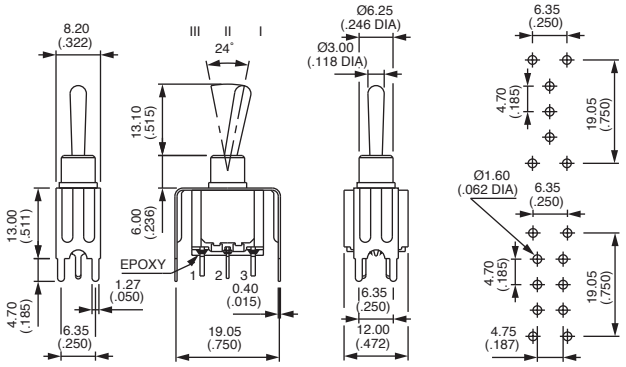
### Tall bracket - width 15,75 (.620) : 5200Y4

| | | III | II | I |
|---|---|---|---|---|
| | | 2-3 | | 1-2 |
| | | 5-6 | | 4-5 |
| Single pole | Double pole | | | |
| **5236Y4 B** | **5246Y4 B** | ON | - | ON |
| **5239Y4 B** | **5249Y4 B** | ON | OFF | ON |
| **5237Y4 B** | **5247Y4 B** | MOM | OFF | MOM |
| **5238Y4 B** | **5248Y4 B** | ON | OFF | MOM |
| **5232Y4 B** | **5242Y4 B** | ON | - | MOM |
| | **5244Y4 B*** | ON | ON | ON |
| | **5244Y4 1R B*** | ON | ON | MOM |
| | **5244Y4 2R B*** | MOM | ON | MOM |



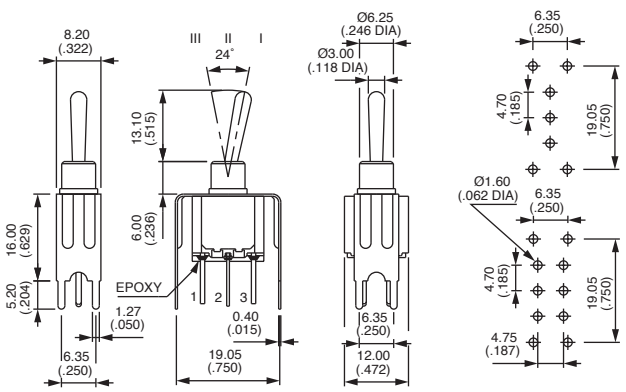

### Short bracket - width 19,05 (.750) : 5200Y6

| | | III | II | I |
|---|---|---|---|---|
| | | 2-3 | | 1-2 |
| | | 5-6 | | 4-5 |
| Single pole | Double pole | | | |
| **5236Y6 B** | **5246Y6 B** | ON | - | ON |
| **5239Y6 B** | **5249Y6 B** | ON | OFF | ON |
| **5237Y6 B** | **5247Y6 B** | MOM | OFF | MOM |
| **5238Y6 B** | **5248Y6 B** | ON | OFF | MOM |
| **5232Y6 B** | **5242Y6 B** | ON | - | MOM |
| | **5244Y6 B*** | ON | ON | ON |
| | **5244Y6 1R B*** | ON | ON | MOM |
| | **5244Y6 2R B*** | MOM | ON | MOM |



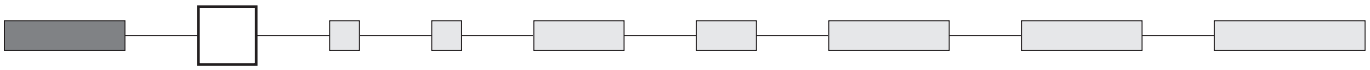

### Tall bracket - width 19,05 (.750) : 5200Y7

| | | III | II | I |
|---|---|---|---|---|
| | | 2-3 | | 1-2 |
| | | 5-6 | | 4-5 |
| Single pole | Double pole | | | |
| **5236Y7 B** | **5246Y7 B** | ON | - | ON |
| **5239Y7 B** | **5249Y7 B** | ON | OFF | ON |
| **5237Y7 B** | **5247Y7 B** | MOM | OFF | MOM |
| **5238Y7 B** | **5248Y7 B** | ON | OFF | MOM |
| **5232Y7 B** | **5242Y7 B** | ON | - | MOM |
| | **5244Y7 B*** | ON | ON | ON |
| | **5244Y7 1R B*** | ON | ON | MOM |
| | **5244Y7 2R B*** | MOM | ON | MOM |




* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

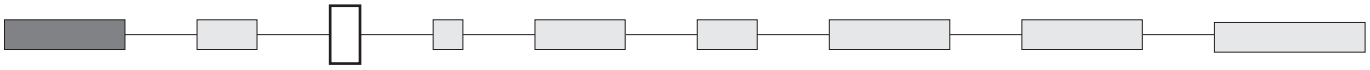
## CONTACT MATERIALS



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

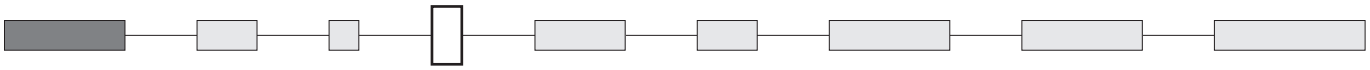
Special contacts for peak currents : see X814, under “Special Options”.

## FINISH



**Blank** Bright chrome finish
**G** Black finish on bushing, actuator and hardware

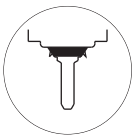
## SEALING



**Blank**
- For 5000 - 5200Z and 5200MIWR models : epoxy sealed terminals standard
- Other models : no sealing required

**B** Epoxy sealed terminals

**K** 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.



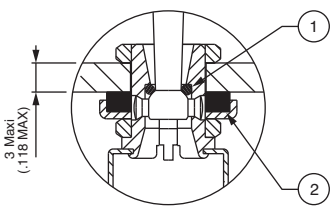
Available on models with Ø 6,35 (1/4) or 11,9 (15/32) **threaded bushing only.**
Not available with levers 8, 9, 12, 22, 23.

**KB** Combined sealings

① O-ring
② Sealing washer

**K** with Ø 6,35 (1/4) keyway bushing

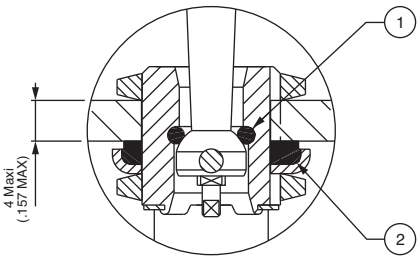
Includes washer **U360**




**K** with Ø 6,35 (1/4) flatted bushing

Includes washer **U5141**

**K** with Ø 11,9 (15/32) keyway bushing

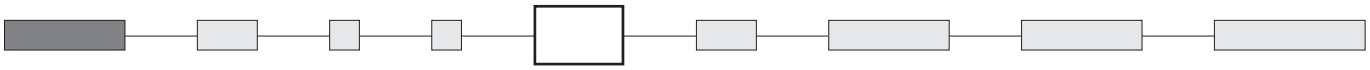



Includes washer **U60**

Sealing by two O-rings, see X408 under "Special options".

A

## FLUORESCENT TIP



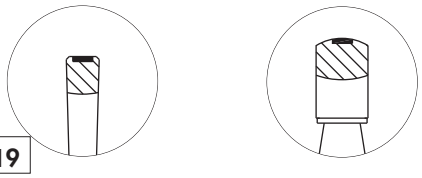
**Blank** None

**038** White fluorescent tip.
Becomes luminous when submitted to ultraviolet rays.

⚠ Available with matt black finish (option G) only.

Consult factory for levers available with this option.

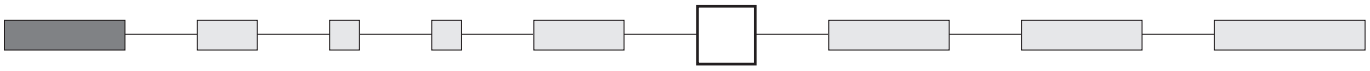
Standard lever | Locking lever



**-19**

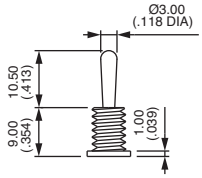
Same dimensions as standard actuator below.

## ACTUATORS

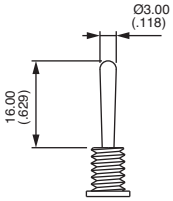


Dash compulsory before lever code.

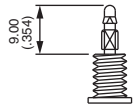
**Levers for threaded bushing models Ø 6,35 (1/4) or Ø 6 (.236)**



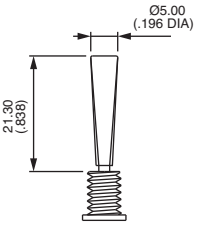

**Blank**
Standard



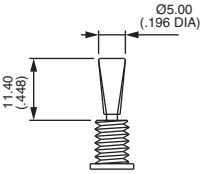

**-2**



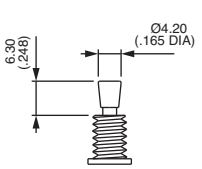

**-4N**
For use with paddles only



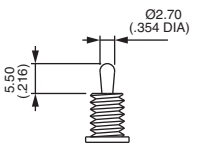

**-8**
Not available with sealing options K or X408



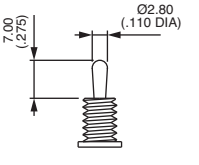

**-9**
Not available with sealing options K or X408



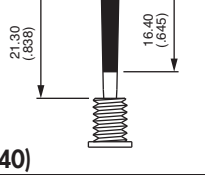

**-12**
Not available with sealing options K or X408




**-16**

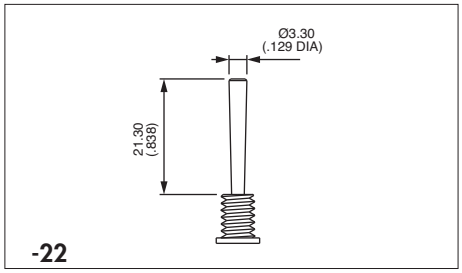



**-17**



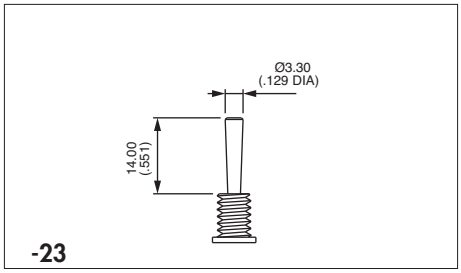

**-21 (+U640)**
U640 to be placed in last box of ordering format. Replace 0 by colour code.

## ACTUATORS (continued)



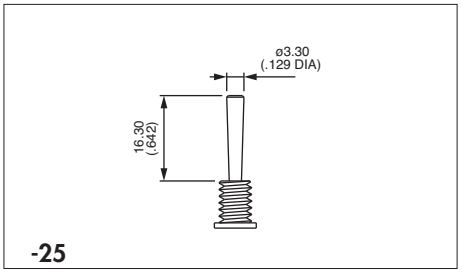

**-22**

Not available with sealing options K or X408




**-23**

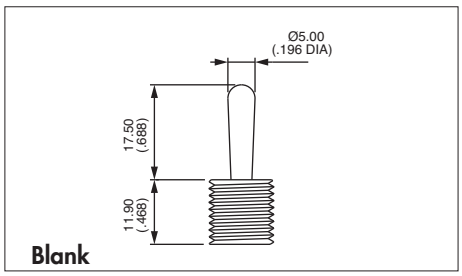
Not available with sealing options K or X408




**-25**

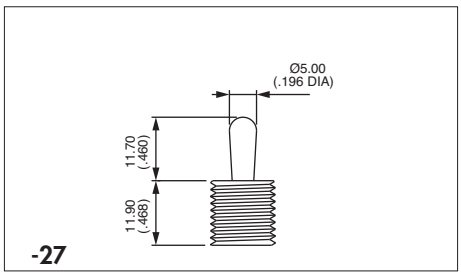
Not available with sealing options K or X408

### Levers for threaded bushing models Ø 11,9 (15/32) : 5600M



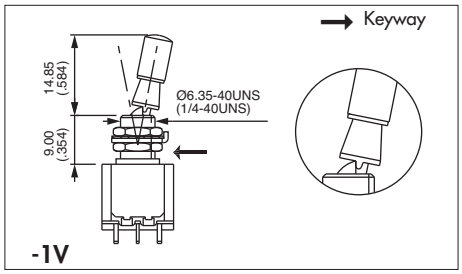

**Blank**

Standard



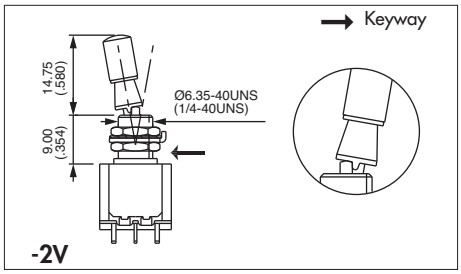

**-27**

### Locking levers



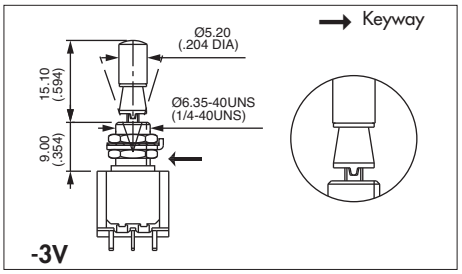

**-1V**

1 locked position (function 6)




**-2V**

2 locked positions (function 6)




**-3V**

3 locked positions (functions 9 and 4)

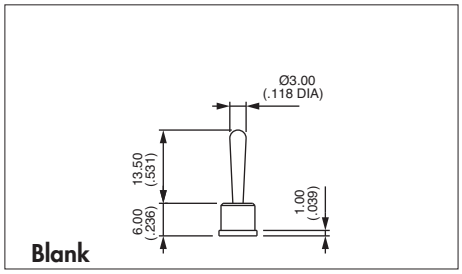
Consult factory for other locking lever options.

Available with Ø 6,35 mm (1/4) threaded bushing models only.
For plain bushing models, see X386 or X916 under “Special options” on the following pages.

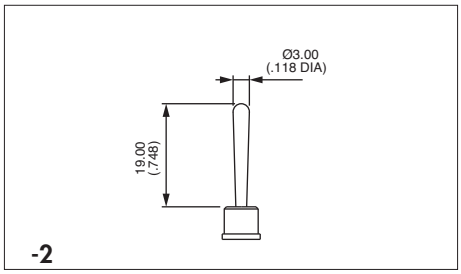
A

## ACTUATORS (continued)

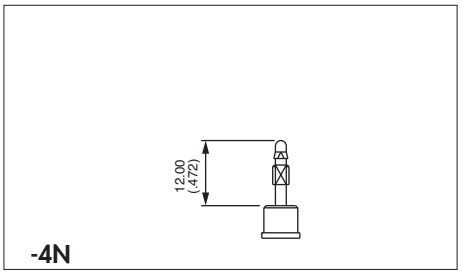
**For plain bushing models : W - WW and Y**



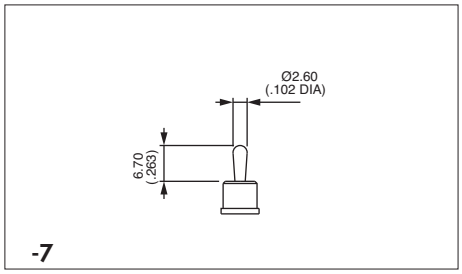

**Blank**
Standard



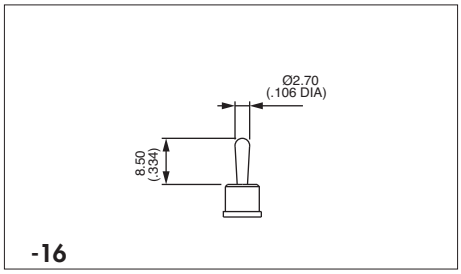

**-2**



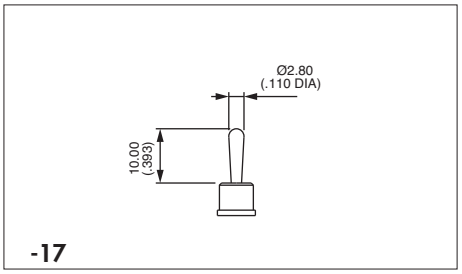

**-4N**
For use with paddles only



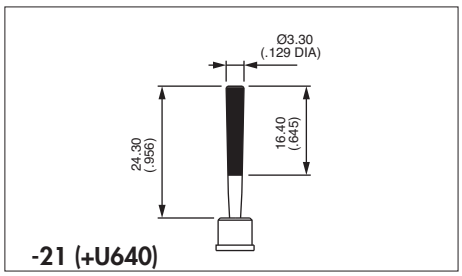

**-7**




**-16**




**-17**

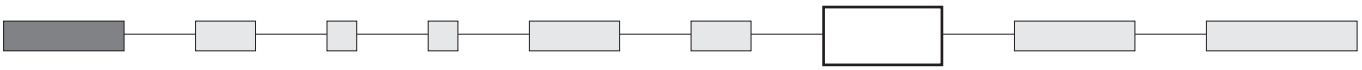



**-21 (+U640)**
U640 to be placed in last box of ordering format. Replace 0 by colour code.

| Actuator colours | |
|---|---|
| Replace "0" by number | |
| **1** | blue |
| **1/4** | dark blue |
| **2** | black |
| **3** | green |
| **4** | grey |
| **5** | yellow |
| **6** | red |
| **7** | ivory |
| **7/1** | white |
| **9** | orange |

**LEVER LENGTH**
With bracket or mounting plate lever length will be reduced by 0,4 mm (.015) as a rule. Please refer to switch technical drawings in "Model Structure" pages for details.

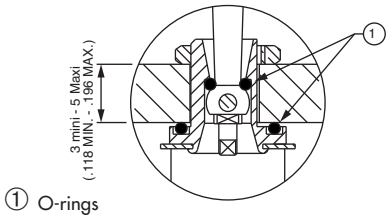
## SPECIAL OPTIONS



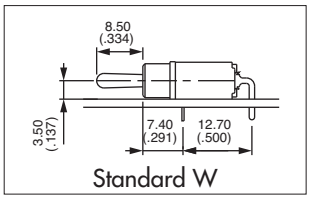
**Blank** No special requirement

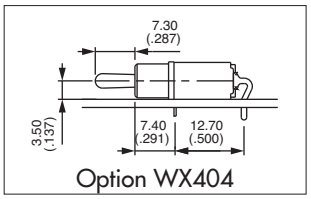
**X408** Front panel sealing by two O-rings. Flatted bushing for precise orientation. Protects the switch against water and dust.
Panel seal withstands 1 bar pressure and remains sealed even when switch is operated. Includes sealed terminals (option B).

⚠ Available only on models with threaded bushing except 5600M.
Not available with levers 8, 9, 12, 22, 23.

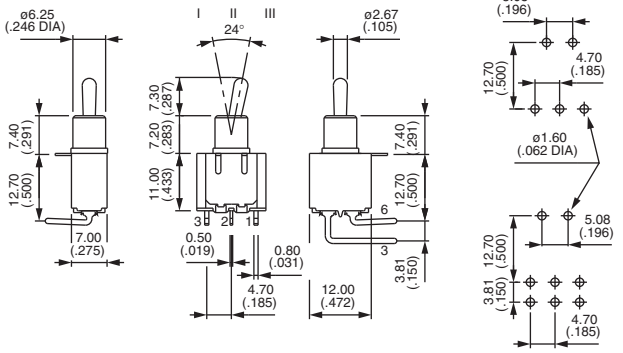



**X404** **Horizontal right angle with reduced overall dimensions**
(shown with lever -16)



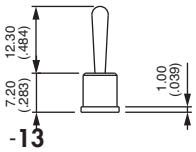



| | | III | II | I |
|---|---|---|---|---|
| | | 2-3 | | 1-2 |
| | | 5-6 | | 4-5 |
| Single pole | Double pole | | | |
| **5236W X404** | **5246W X404** | ON | - | ON |
| **5239W X404** | **5249W X404** | ON | OFF | ON |
| **5237W X404** | **5247W X404** | MOM | OFF | MOM |
| **5238W X404** | **5248W X404** | ON | OFF | MOM |
| **5232W X404** | **5242W X404** | ON | - | MOM |
| | **5244W X404*** | ON | ON | ON |
| | **5244W1R X404*** | ON | ON | MOM |
| | **5244W2R X404*** | MOM | ON | MOM |

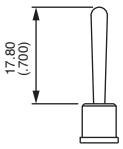



* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

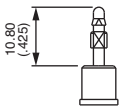
Levers lenghts for WX404 (also available with X445 option)



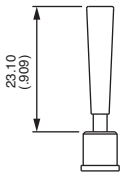

**-13**



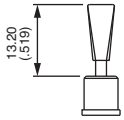

**-2**



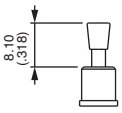

**-4N** (for paddles)




**-8**

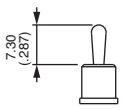



**-9**

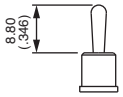



**-12**

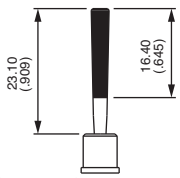
Note : levers -8, -9 and -12 not available with function 2 (ON-MOM)



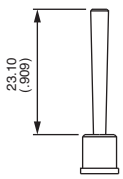

**-16**



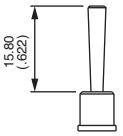

**-17**




**-21 (+U640)***




**-22**




**-23**

* U640 to be placed in last box of ordering format. Replace 0 by colour code.

Insulating caps and paddles for X404 :

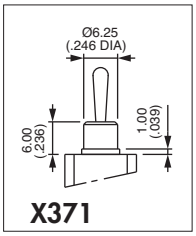
Insulating cap U1710 available with lever style 16.
Paddles U240N, U290N and U390N available with lever style 4N. See details on next pages.

A

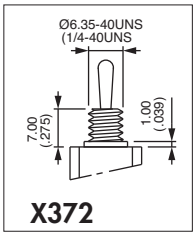
## SPECIAL OPTIONS (continued)

With options X372, X386, X442 and X445, the lever lengths indicated on previous pages will be modified.

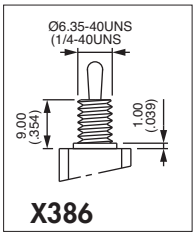
**X371** Plain bushing Ø 6,25 mm (.246) (instead of standard threaded bushing).



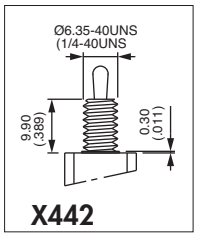

**X372** Threaded bushing Ø 6,35 (1/4). **Height 7 mm (.274).**



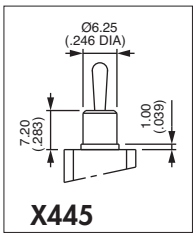

**X386** Threaded bushing Ø 6,35 mm (1/4) to replace plain bushing on models W - WW and Y.




**X442** Threaded bushing Ø 6,35 mm (1/4) - **Height 9,9 mm (.389)**.




**X445** Plain bushing. **Height 7,2 mm (.283)** - for W, WW and Y models. Available with the same levers, insulating cap and paddles as X404.`




**X601** **Silver plated brass contacts**.
Current/voltage rating for an electrical life of 20.000 cycles : 0,5A 30VDC.
Minimum quantity : 5.000 pieces per model and shipment.

**X681** **Satin chrome** actuator

**X814** **Switches for peak currents**

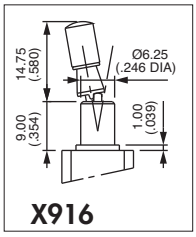
Peak current up to 120A (1 ms) 60VDC - single/double pole

| | | | |
|---|---|---|---|
| Single pole **5636A X814** | ON | - | ON |
| Double pole **5646A X814** | ON | - | ON |

- Contacts : silver/nickel alloy (AgNi)
- Max. current/voltage rating : 2/120A (1 ms) 60VDC - 10.000 cycles
- Further specifications and dimensions : see 5600 series.
- General information on peak currents : see end of catalogue.

**X902** Plain bushing Ø 6,25 mm (.246) - **Height 9 mm (.354).**

**X916** Locking lever on model with plain bushing.



## AGENCY APPROVALS

| | |
|---|---|
| **UL** | All standard models, except 5200MIWR |
| **CSA** | |
| **CECC** | Standard models 5600 - 5200 |

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

**Marking** : to order switches marked UL, CSA or CECC, complete above box with desired approvals, in this order & without space (ex. : ULCSACECC). Blank : no agency approval required.

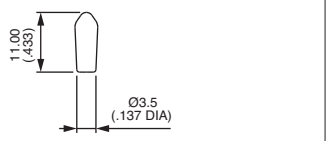
**VDE (with UL & CSA)** Refer to 55000 series on the following pages.

Preferential lists : see specifications.

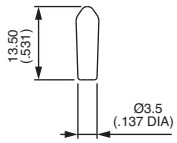
## INSULATING CAPS AND PADDLES

**+ U...**

### Insulating caps

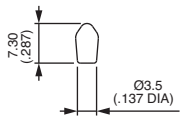



**U270**
For standard lever & threaded bushing only




**U1040**
For standard lever & plain bushing only

| Cap colours | |
|---|---|
| Replace last "0" by number | |
| **1** | blue |
| **1/4** | dark blue |
| **2** | black |
| **3** | green |
| **4** | grey |
| **5** | yellow |
| **6** | red |
| **7/1** | white |
| **9** | orange |



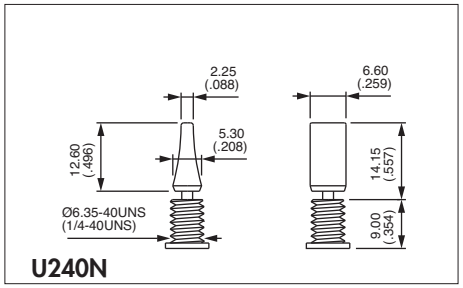

**U1710**
For lever 17 and threaded bushing
For lever 7 and plain bushing

Insulating caps are not available in ivory colour.

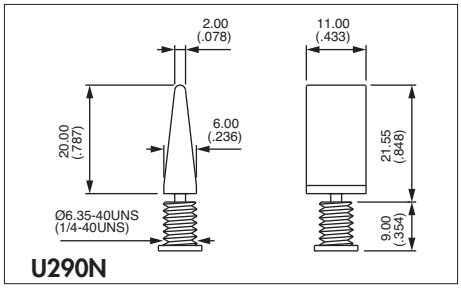
A

## INSULATED CAPS AND PADDLES (continued)

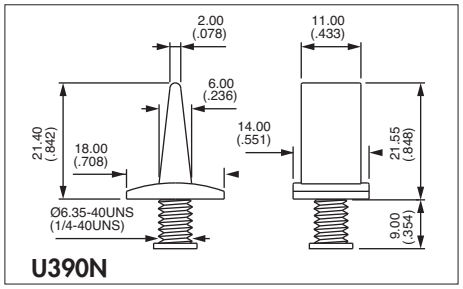
### Paddles
For use with lever 4N only. Shown with standard threaded bushing. Order separately.



U240N



U290N



U390N

| Paddle colours | |
|---|---|
| Replace last "0" by number | |
| **1** | blue |
| **1/4** | dark blue |
| **2** | black |
| **3** | green |
| **4** | grey |
| **5** | yellow |
| **6** | red |
| **7** | ivory |
| **7/1** | white |
| **9** | orange |

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

**Данный компонент на территории Российской Федерации**

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

**Офис по работе с юридическими лицами:**

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9