# 18000 series

Snap-action momentary pushbutton switches

## DISTINCTIVE FEATURES

**Panel and PC mount models**
**Snap-in panel mounting version**
**Tactile feedback**

## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold plated brass contacts : 100 mA - 30 VDC
  - gold plated silver contacts : 1 A 30 VDC
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1,000 MΩ min.
- Dielectric strength : 1,000 Vrms 50 Hz min.
- Electrical life : 60,000 cycles at full load

## GENERAL SPECIFICATIONS

- Total travel : 0.5 mm (.019)
- Torque : 1.25 Nm (.922 Ft.lb) max. applied to nut
- Operating temperature : -30 °C to +65 °C (-22 °F to +149 °F)
- Soldering : 300 °C (572 °F), 3 sec. max.

## MATERIALS

- Case : PBT
- Actuator : polyamide, glass filled
- Bushing : brass, nickel plated
- Housing : stainless steel
- Bracket : tin plated steel
- Contacts
  AD : silver, gold plated
  CD : brass, gold plated
- Terminal seal : epoxy

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

The company reserves the right to change specifications without notice.

# 18000 series

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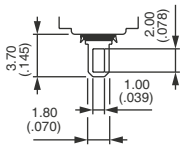
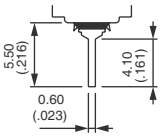
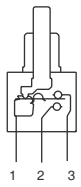
## TERMINALS



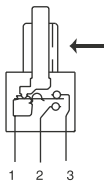




## ELECTRICAL FUNCTION

→ KEYWAY



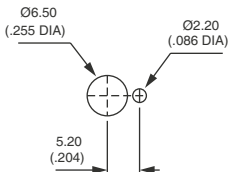

Plain bushing



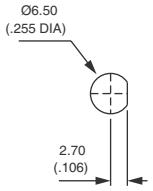

Threaded bushing

## PANEL CUT-OUT

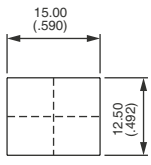
18500 - 18200



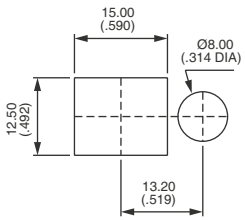

18700 - 18900




18800




With bezel **U1200**




With bezel **U1210** for LED

# 18000 series

Snap-action momentary pushbutton switches

## BUILD YOUR PART NUMBER

### BASIC PART NUMBER

| 18 | | | | |
|---|---|---|---|---|
| SERIES | TERMINALS AND BUSHINGS | NUMBER OF POLES | ELECTRICAL FUNCTION | TERMINALS |

**TERMINALS AND BUSHINGS**

| | |
|---|---|
| 2 | Straight PC terminals with Ø 6.35 (1/4) threaded bushing<br>Straight PC terminals + bracket or right angle terminals with plain bushing |
| 5 | Solder lug terminals with Ø 6.35 (1/4) threaded bushing. |
| 7 | Solder lug terminals with Ø 6.35 (1/4) flatted bushing. |
| 8 | Solder lug terminals, snap-in mounting |
| 9 | Straight PC terminals with Ø 6.35 (1/4) flatted bushing. |

**NUMBER OF POLES**

| | |
|---|---|
| 3 | Single pole |
| 4 | Double pole |

**ELECTRICAL FUNCTION**

| | |
|---|---|
| 5 | ON - MOM |

**TERMINALS**

| | |
|---|---|
| Blank | Solder lugs or straight PC depending on model |
| W | Right angle, horizontal mounting |
| WW | Right angle, vertical mounting |
| Y | Bracket mounting |

### OPTIONS

| | | | | |
|---|---|---|---|---|
| CONTACT MATERIALS | PLUNGERS | SPECIAL OPTIONS | CAPS FOR PLUNGERS | BEZELS |

**CONTACT MATERIALS**

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

**PLUNGERS**

| | |
|---|---|
| Blank | Ø 4 (.157), long |
| -6 | Ø 3.1 (.122), length 5.85 mm (.230) |
| -3 | Ø 4 (.157), short |
| -5 | Ø 3.1 (.122), length 6.3 mm (.248) |

**SPECIAL OPTIONS**

| | |
|---|---|
| X624 | Shorter bushing and plunger |
| X662 | Snap-in mounting and straight PC terminals |

**CAPS FOR PLUNGERS**

| | |
|---|---|
| Round | Ø 5 (.196), Ø 8 (.314), Ø 9.4 (.370), Ø 10 (.393) - standard, Ø 15 (.590) |
| Square | Height 4 (.157), Height 6 (.236) |

**BEZELS**

| | |
|---|---|
| U1200 U1210 for LED | For snap-in mounting models |
| U3200 | For bracket mounting 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 following pages for further information.

**Sealing boots** are available to protect the switches against dust and water. See "Sealing Boots" section on website.

**Mounting accessories :** standard hardware supplied with all models with Ø 6,35 (1/4) threaded bushing : 2 hex nuts 8 mm (.314) across flats, 1 locking ring and 1 lockwasher. Standard and special hardware is presented in the “Hardware“ section of website.

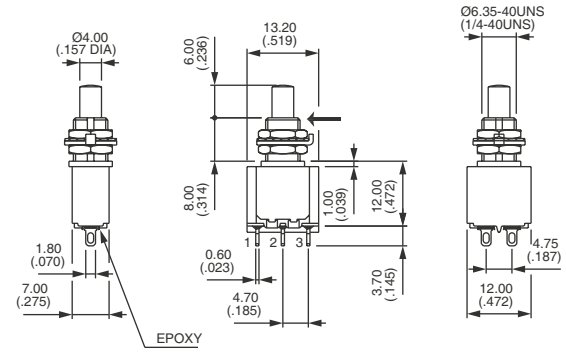
# 18000 series

Snap-action momentary pushbutton switches

## THREADED BUSHING
## SOLDER LUG TERMINALS : 18500

| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18535 | ON | MOM |
| Double pole | | |
| 18545 | ON | MOM |

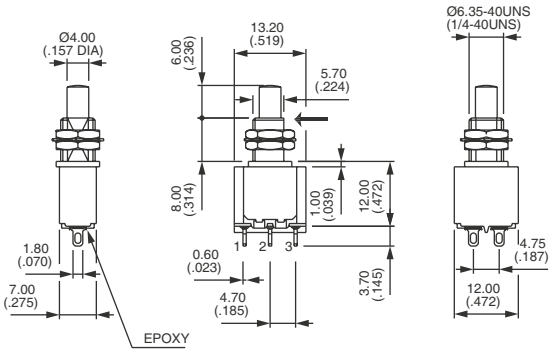
KEYWAY — Shown with standard plunger




## FLATTED BUSHING
## SOLDER LUG TERMINALS : 18700

| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18735 | ON | MOM |
| Double pole | | |
| 18745 | ON | MOM |

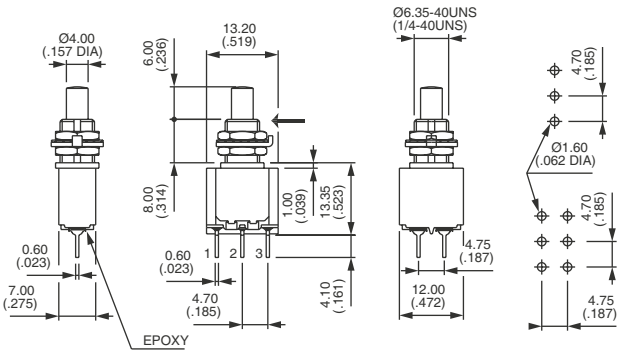
KEYWAY




## THREADED BUSHING
## STRAIGHT PC TERMINALS : 18200

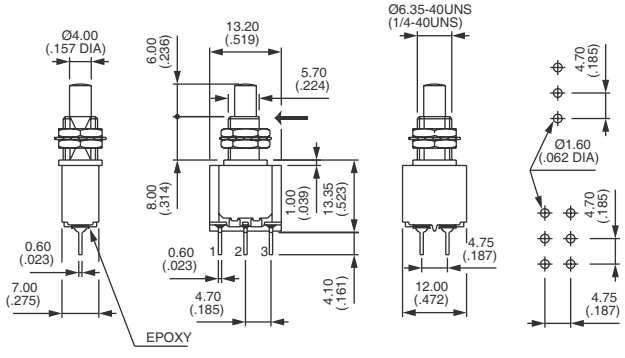
| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18235 | ON | MOM |
| Double pole | | |
| 18245 | ON | MOM |

KEYWAY




## FLATTED BUSHING - STRAIGHT PC
## TERMINALS : 18900

| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18935 | ON | MOM |
| Double pole | | |
| 18945 | ON | MOM |



# 18000 series

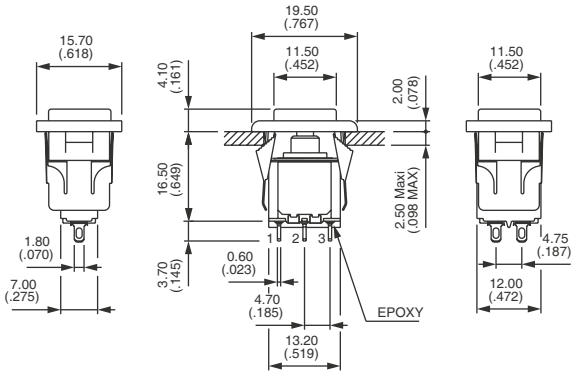
## Snap-action momentary pushbutton switches

### SNAP-IN MOUNTING
### SOLDER LUG TERMINALS : 18800

| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18835 | ON | MOM |
| Double pole | | |
| 18845 | ON | MOM |

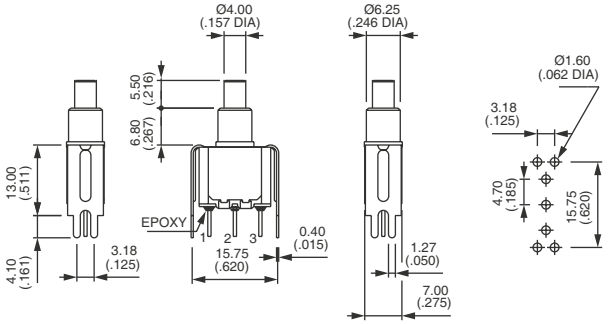
Available with straight PC terminals : see X662 under "Special options"

Shown with cap U910 + U1200



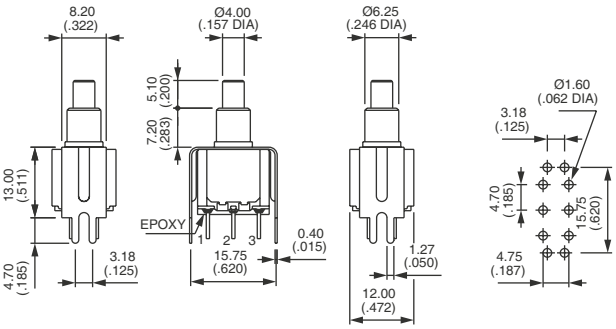

### STRAIGHT PC TERMINALS
### BRACKET MOUNTING - SINGLE POLE : 18230Y

| | | |
|---|---|---|
| 18235Y | ON | MOM |



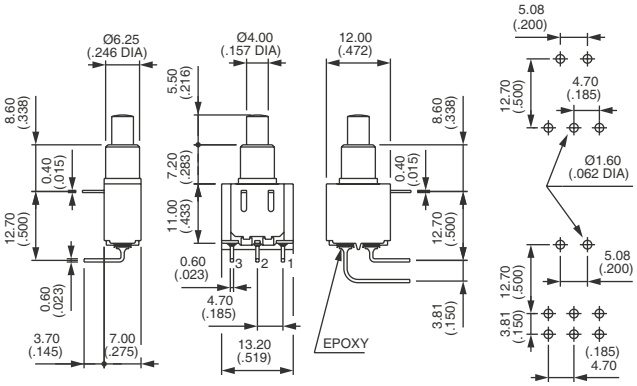

### STRAIGHT PC TERMINALS
### BRACKET MOUNTING - DOUBLE POLE : 18240Y

| | | |
|---|---|---|
| 18245Y | ON | MOM |




### RIGHT ANGLE TERMINALS
### HORIZONTAL : 18200W

| | | |
|---|---|---|
| Single pole | | |
| 18235W | ON | MOM |
| Double pole | | |
| 18245W | ON | MOM |

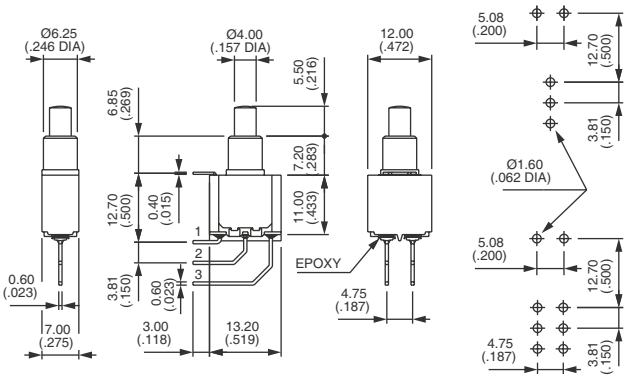


# 18000 series

Snap-action momentary pushbutton switches

## PLAIN BUSHING - RIGHT ANGLE TERMINALS VERTICAL : 18200WW

| | 1-3 | 1-2 |
|---|---|---|
| Single pole | | |
| 18235WW | ON | MOM |
| Double pole | | |
| 18245WW | ON | MOM |




## CONTACT MATERIALS

BASIC P/N

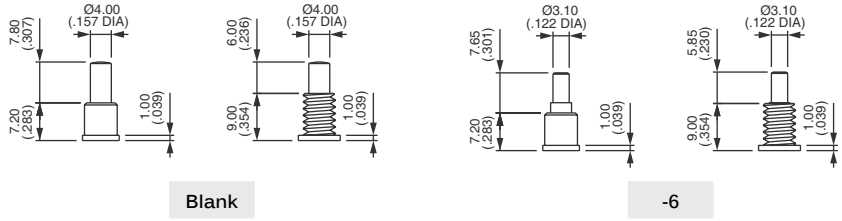
**AD** Silver, gold plated
**CD** Brass, gold plated

## PLUNGERS

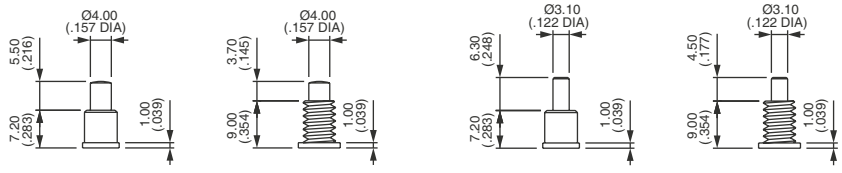
BASIC P/N

**Dash compulsory before plunger code.**

**Blank** Ø 4 (.157) - long
**-6** Ø 3.1 (.122)
**-3** Ø 4 (.157) - short
**-5** Ø 3.1 (.122)




Blank -6




-3 -5

## SPECIAL OPTIONS

BASIC P/N

**X371** Plain bushing Ø 6.25 mm (.246) (instead of standard threaded bushing).

**X372** Shorter threaded bushing Ø 6.35 (1/4). **Height 7 mm (.274).**

X371 X372

# 18000 series

## Snap-action momentary pushbutton switches

SPECIAL OPTIONS
(CONTINUED)

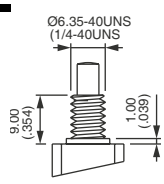
BASIC P/N

**X386** Threaded bushing Ø 6.35 mm (1/4) to replace plain bushing on models W - WW and Y.

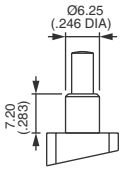
**X438** Plain bushing Ø 6.25 mm (.246). **Height 7,2 mm (.283) - without shoulder.**

**X624** Straight PC terminals - bracket mounting - with shorter bushing and plunger

**X662** Snap-in mounting - straight PC terminals




X386



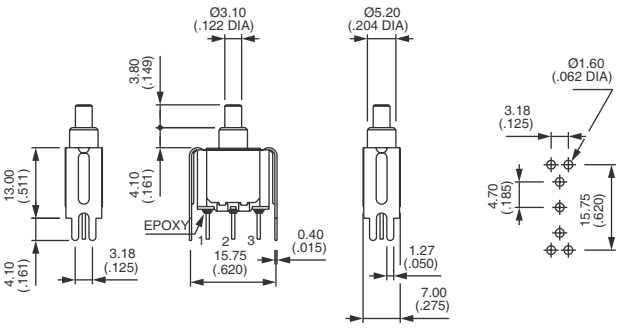

X438

OPTION X624 - SINGLE POLE

18235Y -2X624

ON

MOM

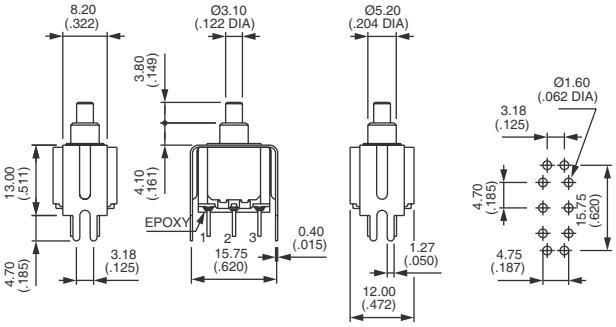



OPTION X624 - DOUBLE POLE

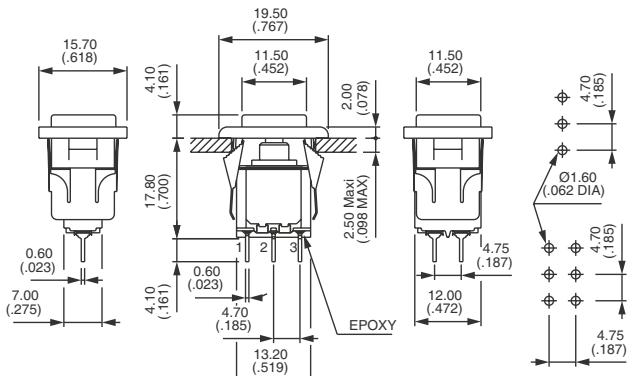
18245Y -2X624

ON

MOM




OPTION X662



# 18000 series

## Snap-action momentary pushbutton switches

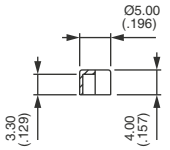
CAPS

BASIC P/N + U...

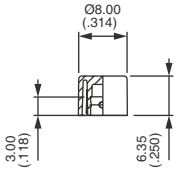
For cap colors, replace last "0" by number :

| | | | |
|---|---|---|---|
| 1 | Blue | 5 | Yellow |
| 1/4 | Dark blue | 6 | Red |
| 2 | Black | 7 | Ivory |
| 3 | Green | 7/1 | White |
| 4 | Grey | 9 | Orange |

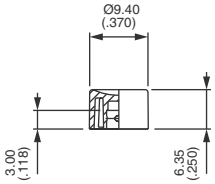
CAPS FOR Ø 4 (.157) PLUNGERS (-13, -3)



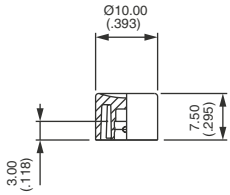

U900



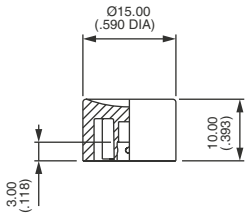

U1140



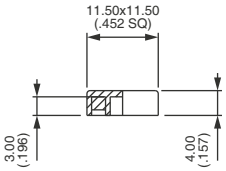

U1720



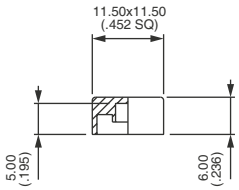

U480




U630

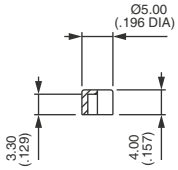



U2430
Square

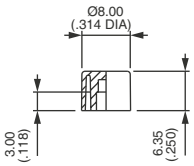



U2020
Square

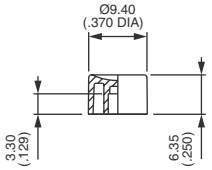
CAPS FOR Ø 3.1 (.122) PLUNGERS (-5, -6)



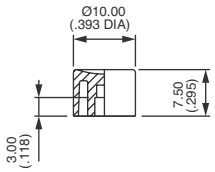

U2400



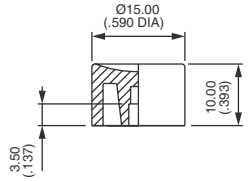

U2510



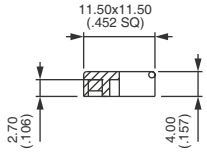

U2130



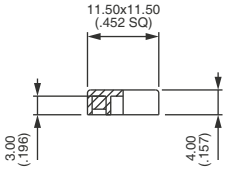

U2900




U3400

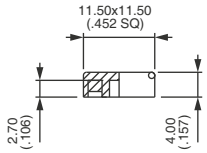



U910
Square

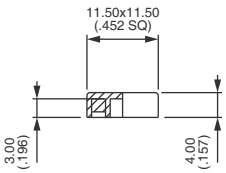



U2430
Square

CAPS FOR Ø 3.1 (.122) PLUNGERS (-5, -6)




U910
Square




U2430
Square

# 18000 series

## Snap-action momentary pushbutton switches

### BEZELS

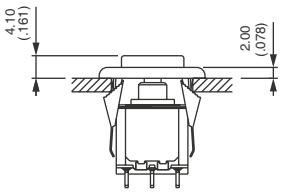
BASIC P/N ..... + U...

For cap colors, replace last "0" by number :

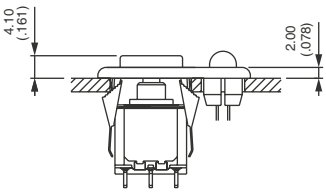
| | | | |
|---|---|---|---|
| **1** | Blue | **5** | Yellow |
| **1/4** | Dark blue | **6** | Red |
| **2** | Black | **7** | Ivory |
| **3** | Green | **7/1** | White |
| **4** | Grey | **9** | Orange |

STANDARD PANEL MOUNTING

Panel thickness with bezel : 1 mm (.039) to 2.5 mm (.098)

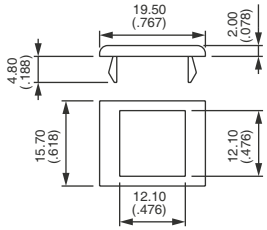



18800 + U910 + U1200



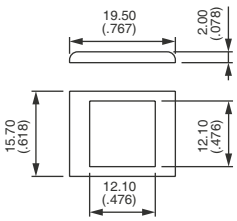

18800 + U910 + U1210

FOR BRACKET MOUNTING MODELS (18200Y & 18200YX624)

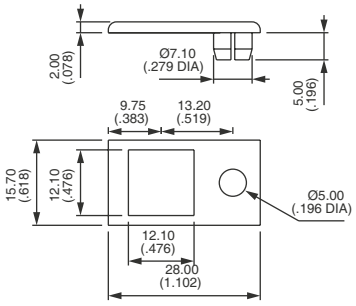



U3200

FOR SNAP-IN MODELS (18800 - 18800X662)




U1200

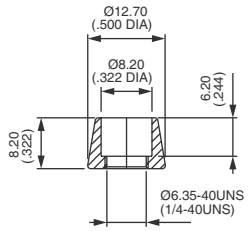



U1210
For LED Ø 5 - not supplied

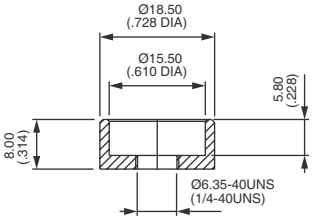
### DRESS NUTS

**Order separately. For models with threaded bushing (18500 - 18700 - 18200 - 18900)**
Chrome plated.

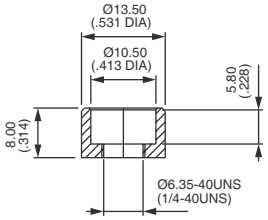
**U1636** For caps U1140 and U2510
**U840** For cap U480 and U2900
**U825** For caps U630 and U3400




U1636




U840




U825

# 18000 series

Snap-action momentary pushbutton switches • high currents

## DISTINCTIVE FEATURES

**Tactile feedback**

**High currents**

## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 7 A 30 VDC
- Initial contact resistance : 20 mΩ max. at 0.1 A 3 VDC
- Insulation resistance : 200,000 MΩ min. between terminals and frame
- Dielectric strength : 1,500 Vrms 50 Hz min.
- Electrical life : 60,000 cycles at full load

## GENERAL SPECIFICATIONS

- Total travel : 0.9 mm (.035) approx.
- Operating temperature : -30 °C to +65 °C (-22 °F to +149 °F)

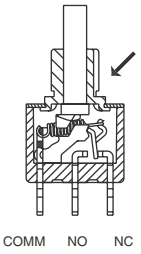
## MATERIALS

- Case : diallylphthalate (DAP)
- Actuator : glass filled polyester
- Bushing : brass, nickel plated
- Housing : stainless steel
- Contacts : silver
- Terminal seal : epoxy

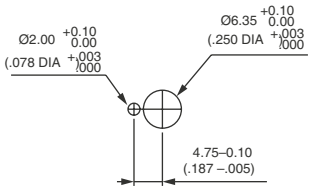
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

## ELECTRICAL FUNCTION

→ KEYWAY




## PANEL CUT-OUT



# 18000 series

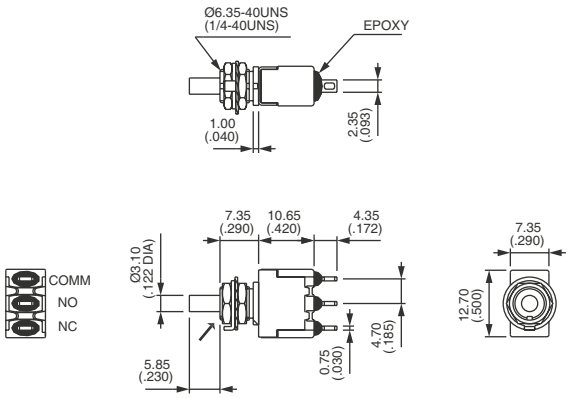
## Snap-action momentary pushbutton switches • high currents

### THREADED BUSHING - SINGLE POLE

| | | |
|---|---|---|
| 18635A | ON | MOM |

Also available in double pole configuration.

→ KEYWAY




### CAPS

BASIC P/N ..... + U...

ROUND

**U2400** Ø 5 (.196)
**U2510** Ø 8 (.314)
**U2130** Ø 9,4 (.370)
**U2900** Ø 10 (.393)
**U3400** Ø 15 (.590)

SQUARE

**U910** Height 4 (.157)
**U2340** Height 6 (.236)

For cap dimensions, see “Caps for Ø 3,1 (.122) plungers” on the preceding pages.

LifeElectronics
Живое партнерство

**ООО «ЛайфЭлектроникс»** **“LifeElectronics” LLC**

*ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703*

*Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.*

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- *Специальные условия для постоянных клиентов.*
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- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

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