# 9000 series

## Momentary pushbutton switches

*Distinctive features and specifications*

UG1006-A



- ❑ **Two case lengths**
- ❑ **Three electrical functions**
- ❑ **Sealing options**
- ❑ **Model X1146 with Ø 16 (.630) bushing**

B

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contact (A) : 0,3A 250VAC - 0,6A 125VAC - 1A 30VDC
  - gold plated contacts (CD) : 100mA 30VDC
- Initial contact resistance : 50 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 terminals and frame
- Electrical life : 250.000 cycles

### MATERIALS

- Case : thermoplastique UL94-V0
- Actuator : polyamide, glass filled
- Bushing : brass, nickel plated
- Contacts :
  **A** : silver
  **CD** : brass, gold plated
- Terminal seal : epoxy

### GENERAL SPECIFICATIONS

- Total travel :

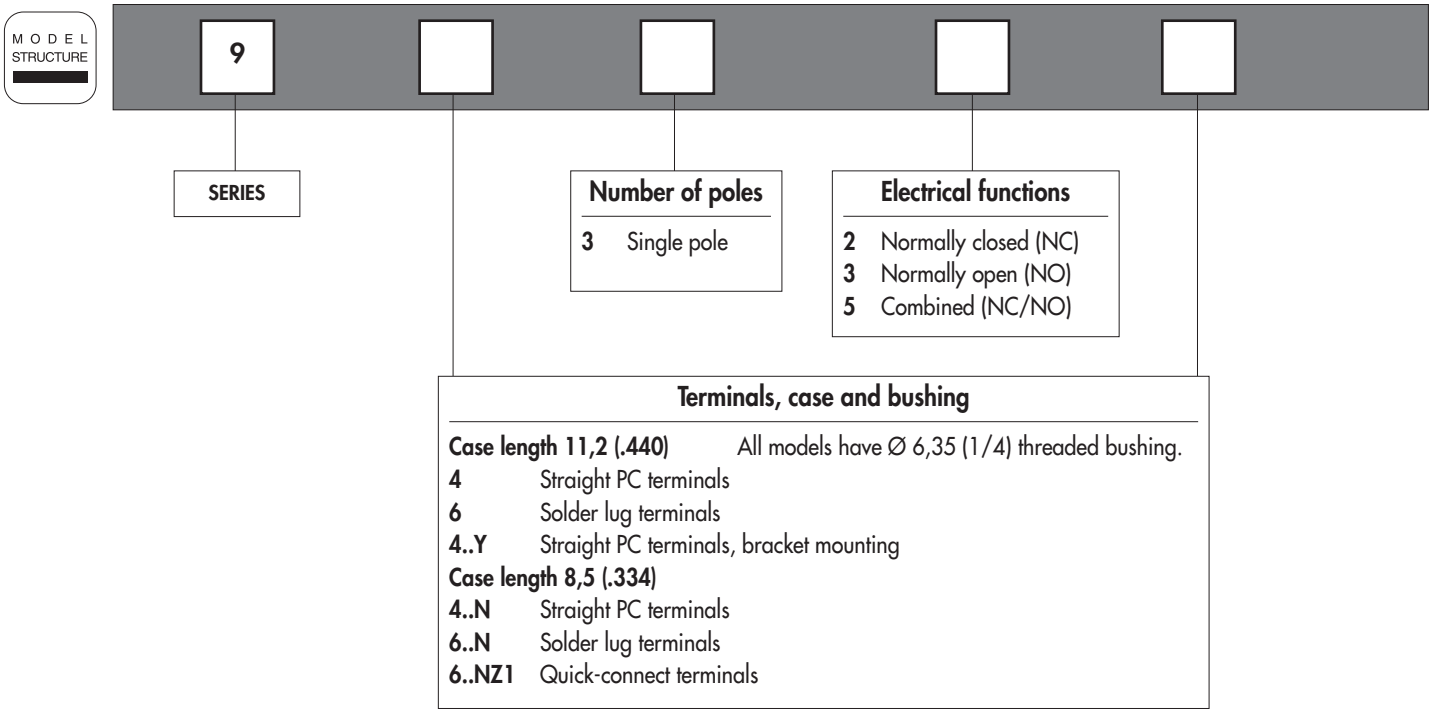
| 9600-9400-9400Y | | 9600N-9400N |
|---|---|---|
| Functions 3 and 5 | Function 2 | Function 3 |
| 1,3 mm | 2 mm | 0,9 mm |

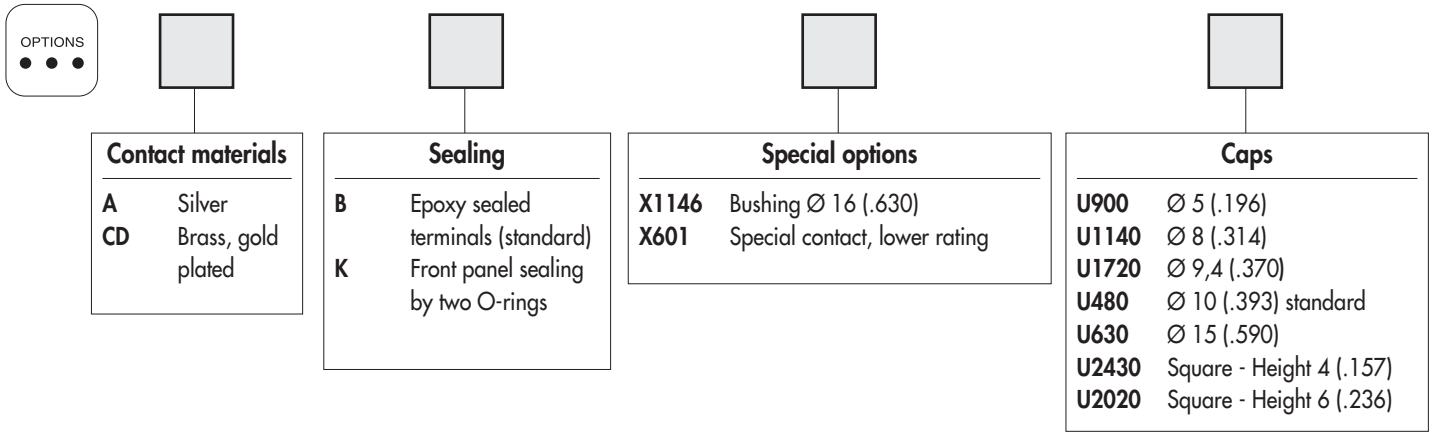
- Torque : 1,25 Nm (.922 Ft.lb) max. applied to nut
- Operating temperature : -30°C to +65°C

# 9000 series

## Momentary pushbutton switches

*Overview*




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

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

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

**Sealing boots** are available to protect the switches against dust and water. They are presented in section H.

**Mounting accessories** : standard hardware supplied with all switches : 2 hex nuts 8 mm (.314) across flats and 1 lockwasher.
Standard and special hardware available are presented in section I.

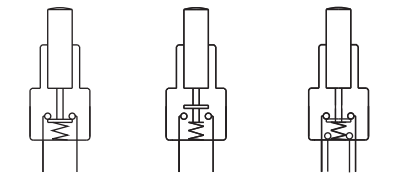
**Packaging unit** : 50 pieces, except for 9400Y (25 pieces)

MODEL STRUCTURE

# 9000 series

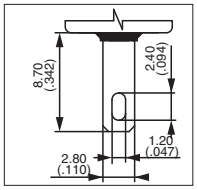
## Momentary pushbutton switches

*9600 - 9400 - 9400Y*

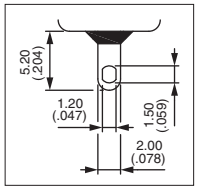



- Single pole
- Solder lug or straight PC terminals
- Epoxy sealed terminals

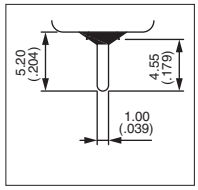
9600Z1



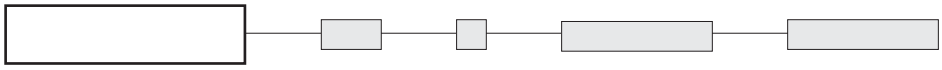

9600




9400




**MODEL STRUCTURE**

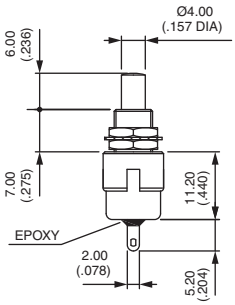


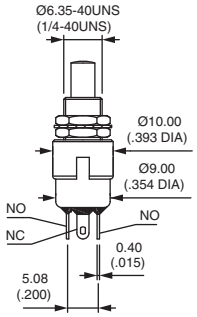
B

## Solder lug terminals - case length 11,2 (.440) : 9600



| | | |
|---|---|---|
| **9632B** |  | Normally Closed |
| **9635B** |  | Combined function |



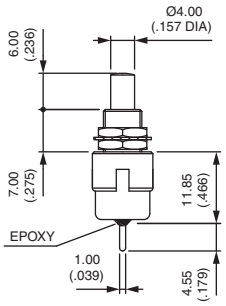



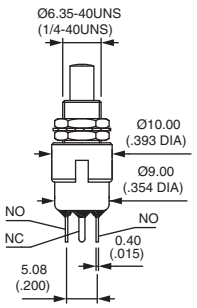

For Normally Open (function 3), see next page.

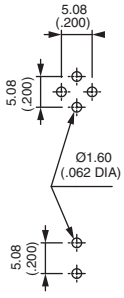
## Straight PC terminals - case length 11,2 (.440) : 9400



| | | |
|---|---|---|
| **9432B** |  | Normally Closed |
| **9433B** |  | Normally Open |
| **9435B** |  | Combined function |



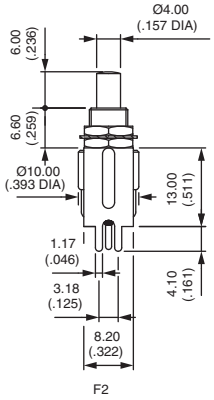



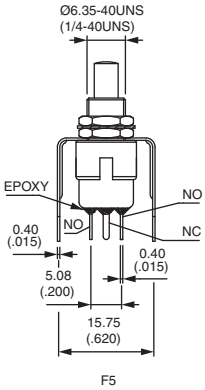



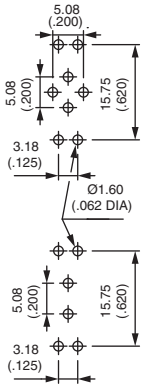

## Bracket mounting - case length 11,2 (.440) : 9400Y



| | | |
|---|---|---|
| **9432YB** |  | Normally Closed |
| **9433YB** |  | Normally Open |
| **9435YB** |  | Combined function |




The bracket is not fastened to the switch.

# 9000 series

## Momentary pushbutton switches

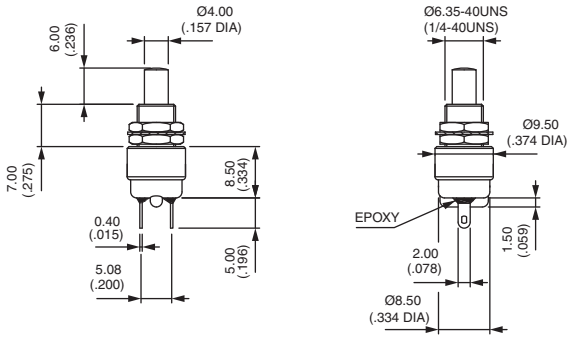
*9600N - 9400N*

MODEL STRUCTURE

### Solder lug terminals - case length 8,5 (.334) : 9600N



**9633NB** Normally Open



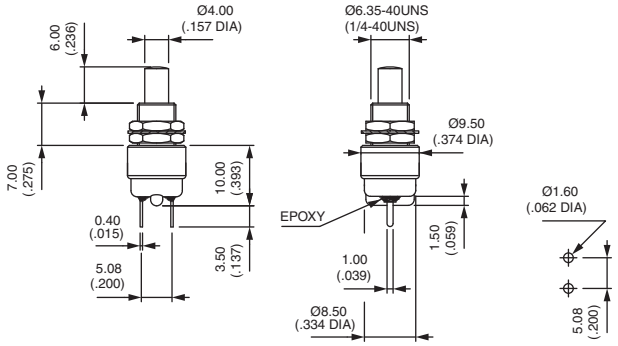

B

Also available with quick-connect terminals 2,8 x 0,5 mm : **9633NZ1**

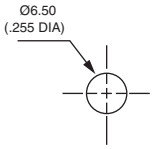
### Straight PC terminals - case length 8,5 (.334) : 9400N



**9433NB** Normally Open




### PANEL CUT-OUT

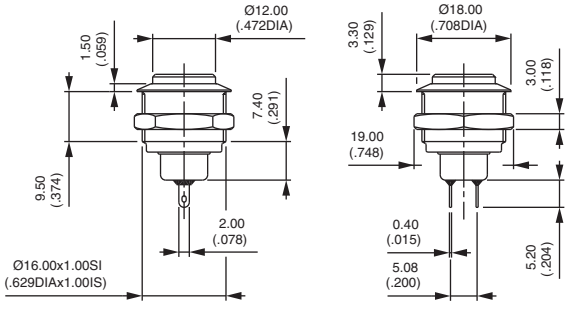



### Bushing Ø 16 (.630) - metal button : 9633•X1146



Silver contacts
**9633AX1146** Normally open

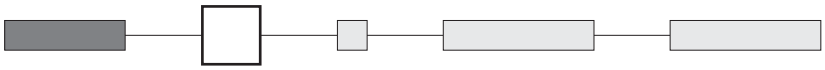
Gold plated silver contacts
**9633ADX1146** Normally open




Panel cut-out : Ø 16,2 (.637)
Max. current/voltage rating. : 0,3A 250VAC - 1A 30VDC
Epoxy sealed terminals. Options of the following pages not applicable.

Hex nut 19 (.748) across flats

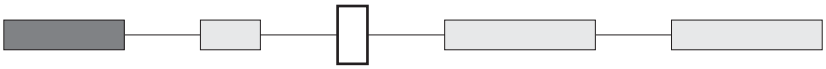
## CONTACT MATERIALS



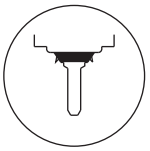
**A** Silver
**CD** Brass, gold plated

Special contact, lower rating : see X601 under "Special options".

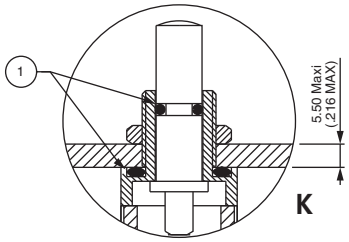
## SEALING



**B** Epoxy sealed terminals



**K** Front panel sealing by two O-rings. Protects the switch against water and dust.
Panel seal withstands 0,1 bar pressure and remains tight even when switch is operated.




① O-rings

**KB** Combined sealings

Sealing boots : see section H.

## SPECIAL OPTIONS



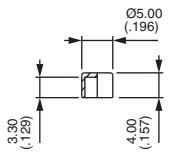
**X601** **Silver plated brass contacts**
Current/voltage rating for an electrical life of 20.000 cycles :
0,2A 250VAC - 0,4A 125VAC - 0,5A 30VDC.
Minimum quantity : 5.000 pieces per model and shipment.

**X1146** **Model with dia. 16 (.630) bushing and metal plunger**
See previous page.

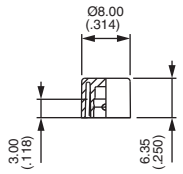
B

## CAPS

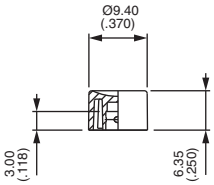


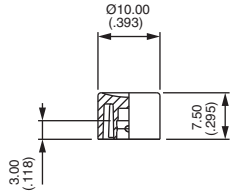

**U900**



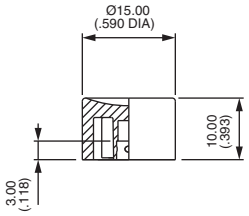

**U1140**




**U1720**




**U480**
Standard

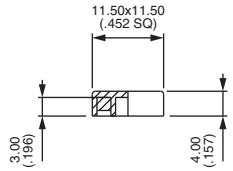



**U630**

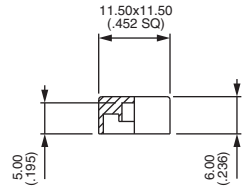
**Cap colours**

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 |



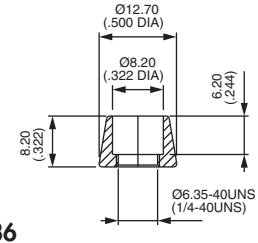

**U2430**
Square



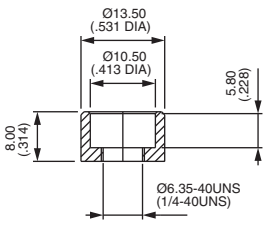

**U2020**
Square

## DRESS NUTS

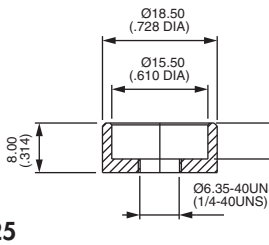
Chrome plated. Order separately.




**U1636**
For cap U1140




**U840**
For cap U480




**U825**
For cap U630

- **Bushing Ø 6,35 (1/4) and 11,9 (15/32)**
- **Two electrical functions**



**ELECTRICAL SPECIFICATIONS**

- Max. current/voltage rating with resistive load and electrical life :
  - silver contacts (A) : 0,5A 250VAC - 1A 28VDC - 250.000 cycles
    1,5A 250VAC - 3A 28VDC - 10.000 cycles
  - gold plated contacts (CD) : 0,4VA 20V max. AC or DC
- Initial contact resistance : 10 mΩ max. at 0,1A 3VDC
- Insulation resistance : 10.000 MΩ min.
- Dielectric strength :
  1.000 Vrms 50 Hz min.

**MATERIALS**

- Case : diallylphthalate
- Actuator : nylon
  black for series 9630M
  white for series 9631
- Bushing : brass, nickel plated
- Contacts :
  **A** : silver
  **CD** : brass, gold plated
- Terminal seal : epoxy

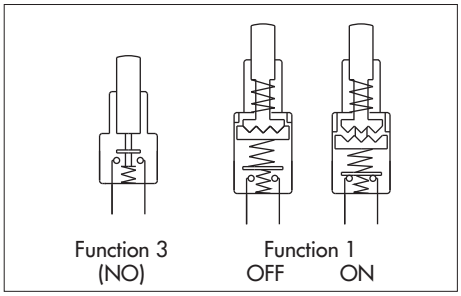
**GENERAL SPECIFICATIONS**

- Operating temperature : -30°C to +85°C
- Travels : see table below.

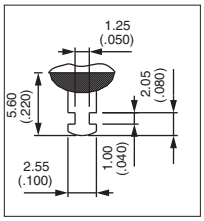
| MODELS | **9631** | **9633M** |
|---|---|---|
| Total travel | 3,48 (.137) | 2,79 (.110) |
| Pre-travel | 0,66 (.026) | - |
| Over travel | 2,69 (.106) | 0,51 (.020) |

# 9000 series

## Alternate action or momentary pushbutton switches




- Single pole
- Solder lug terminals
- Epoxy sealed terminals



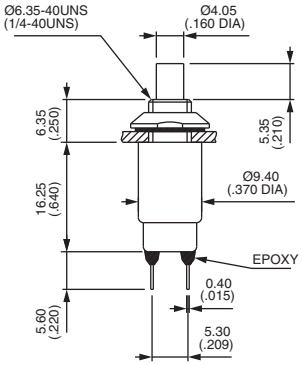

B

### Bushing Ø 6,35 (1/4) - Alternate action - tactile feedback



Gold plated contacts
**9631CDB** ON - OFF

Silver contacts
**9631AB** ON - OFF

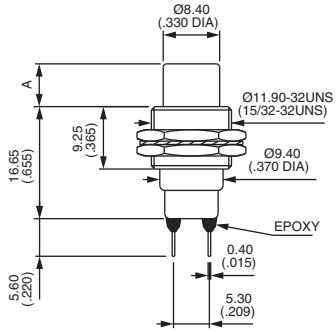



Standard hardware : 1 conic nut and 1 lockwasher

### Bushing Ø 11,9 (15/32) - front or rear mounting - NO



**9633MCDB** Normally open




| MODEL | A |
|---|---|
| 9633M | 6.35 (.250) |

Standard hardware : 2 hex nuts 14 mm (.551) across flats and 1 lockwasher