

9000 series

Subminiature momentary pushbutton switches

Distinctive features and specifications

UG1006-A



- Panel and PC mount models, horizontal or vertical
- Self-cleaning and butt action contacts
- Several plunger options

B

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 100mA 30VDC
- Initial contact resistance : 30 mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength :
500 Vrms 50 Hz min. between terminals
1.000 Vrms 50 Hz min. between terminals and frame
- Electrical life at full load :
9100 - 9200N and 9500N : 250.000 cycles
9200 - 9500 : 100.000 cycles

MATERIALS

- Case : Pa6T
- Actuator : polyamide, glass filled
- Bushing : brass, nickel plated
- Contacts :
CD : brass, gold plated
- Terminal seal : epoxy

GENERAL SPECIFICATIONS

- Torque : 0,5 Nm (.590 Ft.lb) max. applied to nut
- Operating temperature : -30°C to +65°C
- Panel thickness : 1,50 mm (.059) max.
- Travels : see table below
Tolerance : +/- 0,3 mm (.011)

| | 9533-9233 | 9532-9232 | 9533N 9233N-9133 |
|--------------|-------------|-------------|---------------------|
| Total travel | 1,10 (.043) | 1,80 (.070) | 1 (.039) |
| Pre-travel | 0,80 (.031) | 1,00 (.039) | - |
| Over travel | 0,30 (.011) | 0,75 (.029) | - |

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Overview



9
SERIES

Number of poles
3 Single pole

Electrical functions
2 Normally closed (NC)
3 Normally open (NO)

Terminals, case and bushing

Case height 8 (.314)
2 Straight terminals - threaded bushing
2..Y Tall bracket - plain bushing
2..WW Right angle terminals - plain bushing
5 Solder lugs - threaded bushing

Case height 6,1 (.240)
1 Straight terminals - threaded bushing - 7,10 (.279) PCB to panel
1..Y Short bracket - plain bushing
1..WW Right angle terminals - plain bushing
2..N Straight terminals - threaded bushing - 8,90 (.350) PCB to panel
2..NY Tall bracket - plain bushing
5..N Solder lugs - threaded bushing



Contact materials
CD Gold plated brass (standard)



Sealing
Blank Epoxy sealed terminals standard
K Front panel sealing by two O-rings



Plunger
Blank Standard
-0 Flush
-4 Long



Caps
For plunger -4
U4310 Height 4 (.157)
U4320 Height 3,9 (.153)



Mounting bezel
U4922
For 9500 model only.

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. They are presented in section H.



Mounting accessories : standard hardware supplied with all threaded bushing models : 1 nickel plated hex nut 5 (.196) across flats, part number U544. This nut is presented after model structure of switches.

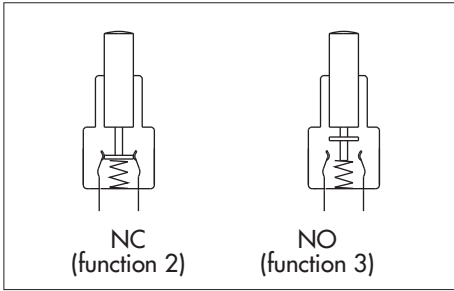


Packaging unit : 100 pieces.

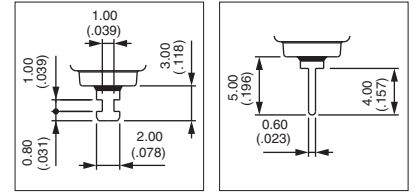
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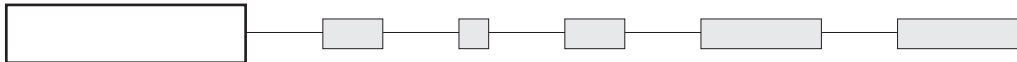
Solder lug or straight PC terminals : 9500 - 9200 - 9200Y



- Case height 8 (.314)
- With over travel
- Self-cleaning contacts
- Epoxy sealed terminals standard



MODEL STRUCTURE



B

Threaded bushing - solder lugs : 9500

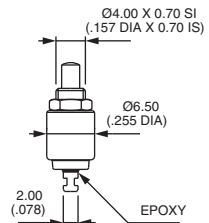
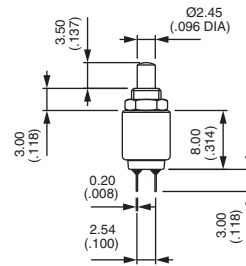


9532

Normally Closed

9533

Normally Open



Threaded bushing - straight PC terminals : 9200

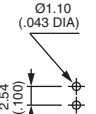
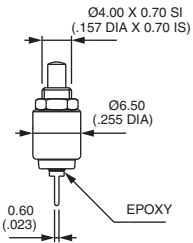
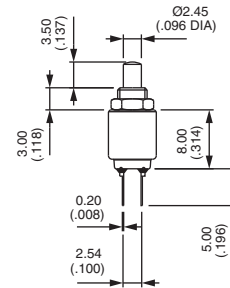


9232

Normally Closed

9233

Normally Open



Straight PC terminals - bracket mounting : 9200Y

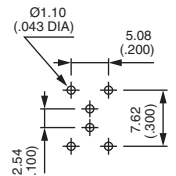
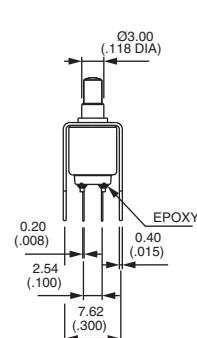
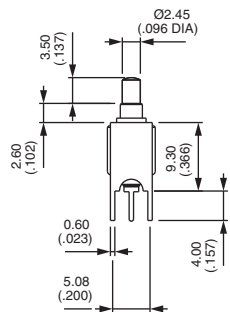


9232Y

Normally Closed

9233Y

Normally Open





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Right angle terminals : 9200WW

Right angle terminals : 9200WW

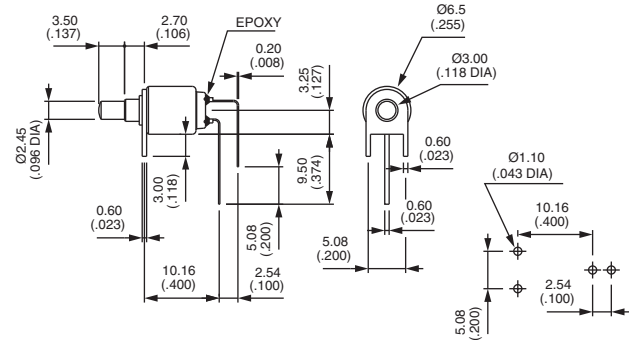


9232WW $\begin{matrix} \uparrow \\ \circ \\ \uparrow \end{matrix}$

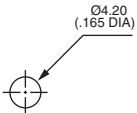
Normally Closed

9233WW $\begin{matrix} \uparrow \\ \circ \\ \circ \end{matrix}$

Normally Open



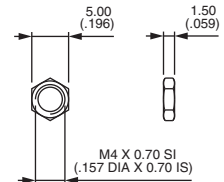
PANEL CUT-OUT



For threaded bushing models.

STANDARD HARDWARE

9500 - 9200

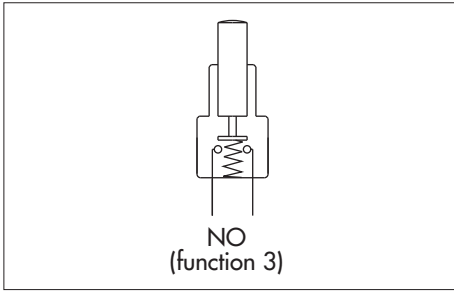


U544 (nickel plated)

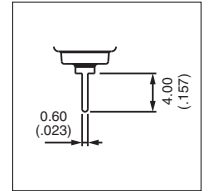
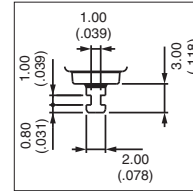
9000 series

Subminiature momentary pushbutton switches

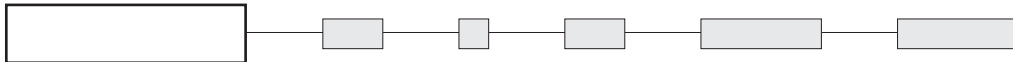
Solder lug or straight PC terminals : 9500N - 9200N - 9100



- Case height 6,1 (.240)
- Epoxy sealed terminals
- Butt action contacts



MODEL
STRUCTURE



B

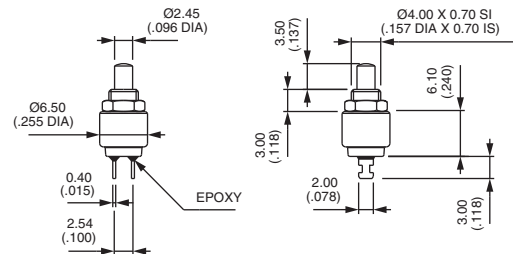
Threaded bushing - solder lugs : 9500N



9533N



Normally Open



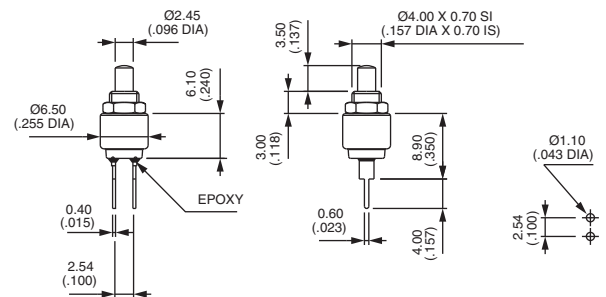
Threaded bushing - straight PC terminals - 8,90 (.350) PCB to panel



9233N



Normally Open



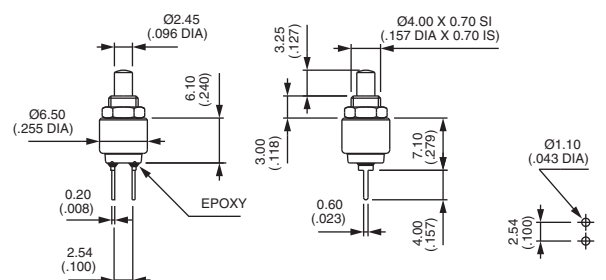
Threaded bushing - straight PC terminals - 7,10 (.279) PCB to panel



9133



Normally Open





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Straight PC or right angle terminals : 9200NY - 9100Y - 9100WW

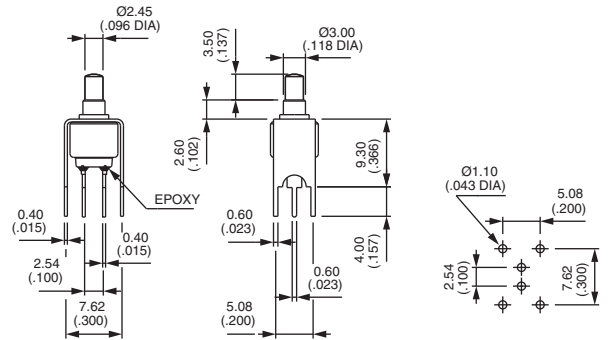
Straight PC terminals - tall bracket : 9200NY



9233NY



Normally Open



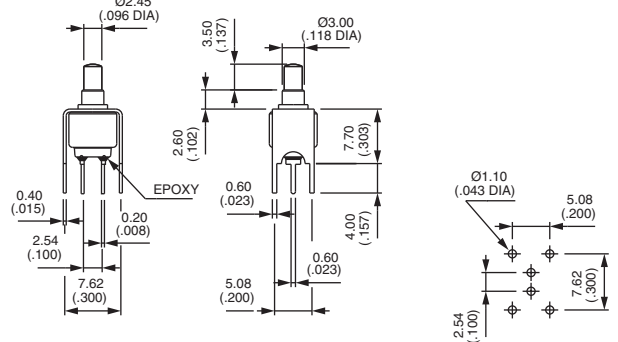
Straight PC terminals - short bracket : 9100Y



9133Y



Normally Open



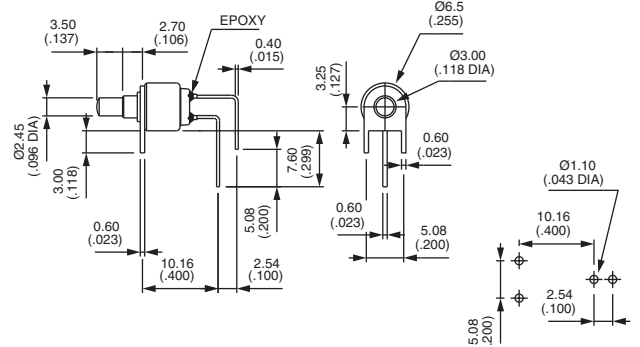
Right angle terminals - vertical : 9100WW



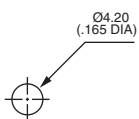
9133WW



Normally Open



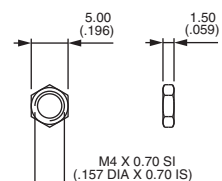
PANEL CUT-OUT



For threaded bushing models.

STANDARD HARDWARE

9500N - 9200N - 9100



U544 (nickel plated)

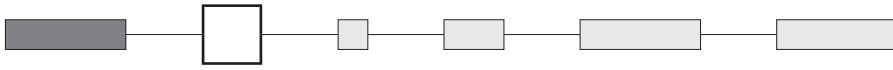
9000 series

Subminiature momentary pushbutton switches

OPTIONS

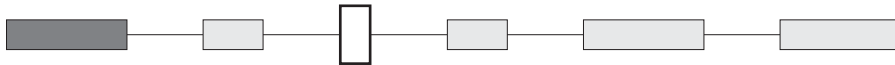


CONTACT MATERIALS



CD Gold plated brass (standard)

SEALING

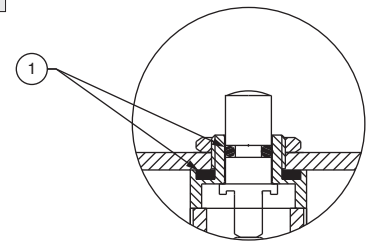


Blank Epoxy sealed terminals standard

K Front panel sealing by two O-rings. Protects the switch against water and dust. Panel seal withstands 0,1 bar pressure.

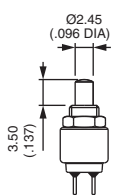


Option K for models 9533N, 9233N and 9133 only.



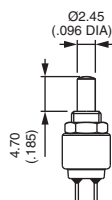
① O-rings

PLUNGERS



Blank

Standard



-4

Long



-0

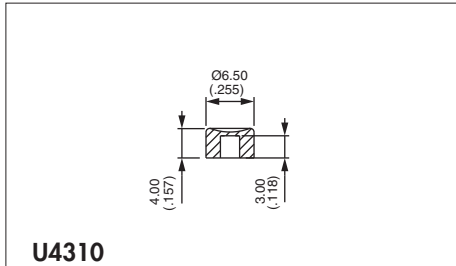
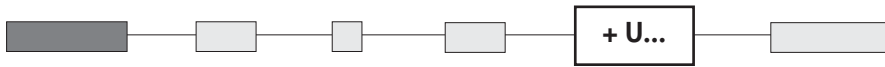
Flush



9000 series

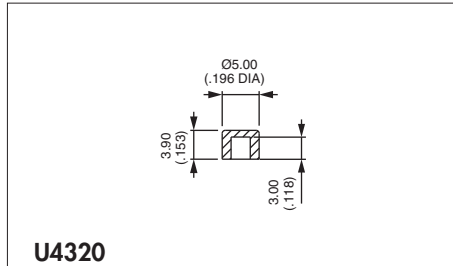
Subminiature momentary pushbutton switches

CAPS



U4310

For use with plunger -4 only



U4320

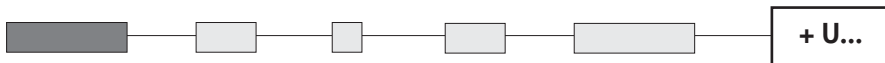
For use with plunger -4 only

Cap colours

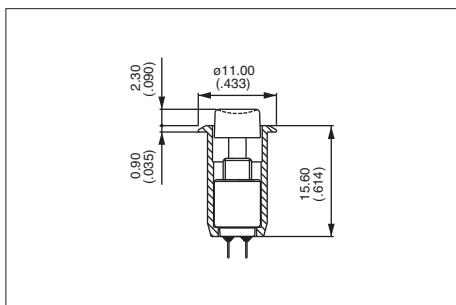
Replace "0" by number

- | | |
|-----|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 6 | red |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |

MOUNTING BEZEL



For 9500 model (case height 8 mm) only



Shown with cap U570.

The mounting bezel U4922 has been designed to facilitate the mounting of the 9500 series pushbutton switch onto a panel. The switch + bezel assembly is snapped into the equipment through the front of the panel, then electrically connected by solder lug terminals.

Panel cut-out : $\varnothing 8,15 \text{ mm} \pm 0,05$
(.320 DIA $\pm .002$)