9000 series

Subminiature momentary pushbutton switches

Distinctive features and pecifications



- ❑ **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 : PPS
- Actuator : polyamide, glass filled
- Bushing : brass, nickel plated
- Contacts :
  CD : brass, gold plated
- Terminal seal : epoxy

GENERAL SPECIFICATIONS

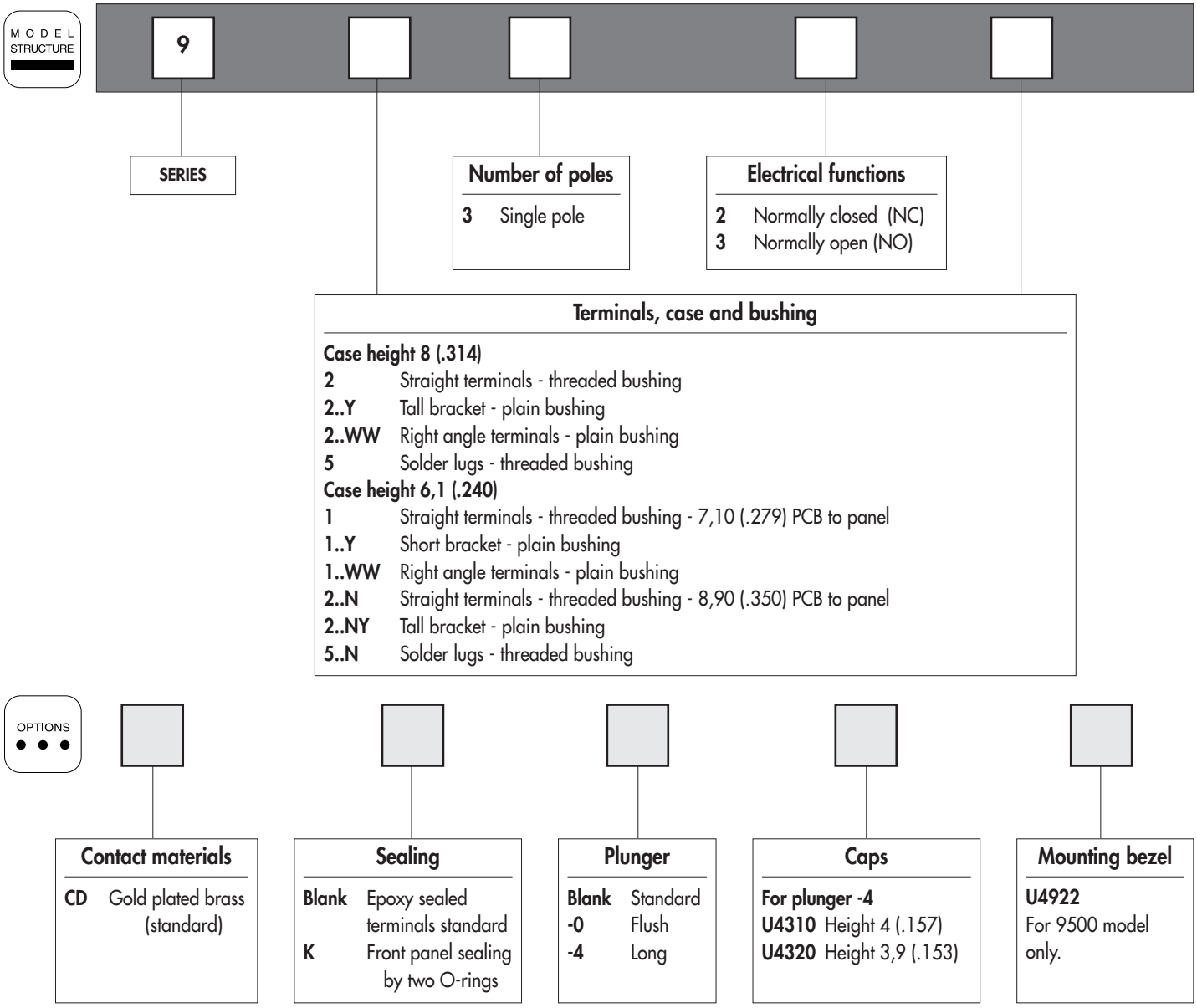
- Torque : 0,5 Nm (.590 Ft.lb) max. applied to nut
- Operating temperature : -30°C to +65°C
- Panel thickness : 1,50 mm (.059) max.
- Travels : see table below
  Tolerance : +/- 0,3 mm (.011)

	9533-9233	9532-9232	9533N 9233N-9133
Total travel	1,60 (.062)	1,80 (.070)	0,9 (.035)
Pre-travel	0,75 (.029)	1,00 (.039)	-
Over travel	0,70 (.027)	0,75 (.029)	-

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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. 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.

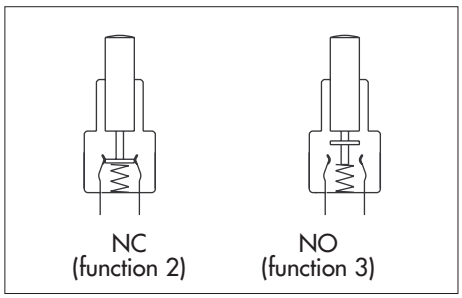
Packaging unit : 100 pieces.

MODEL STRUCTURE

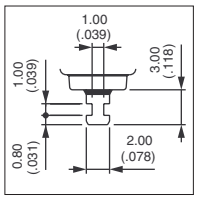
9000 series

Subminiature momentary pushbutton switches

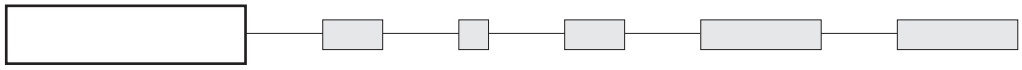
Solder lug or straight PC terminals : 9500 - 9200 - 9200Y



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



MODEL STRUCTURE

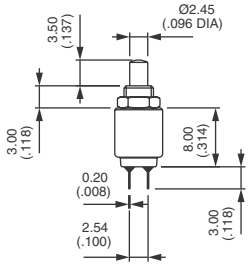


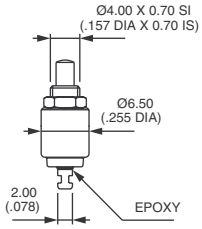
B

Threaded bushing - solder lugs : 9500



9532		Normally Closed
9533		Normally Open

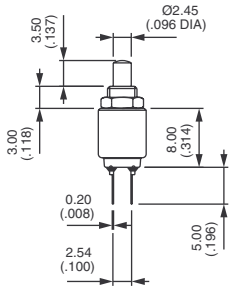


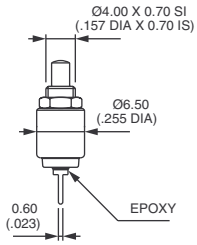


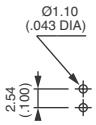
Threaded bushing - straight PC terminals : 9200



9232		Normally Closed
9233		Normally Open



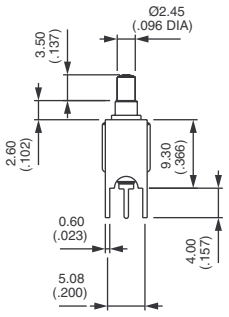


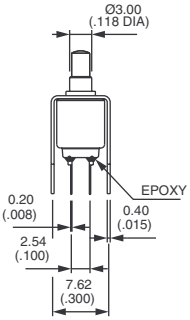


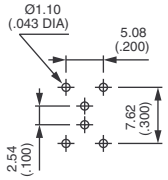
Straight PC terminals - bracket mounting : 9200Y



9232Y		Normally Closed
9233Y		Normally Open







9000 series

Subminiature momentary pushbutton switches

Right angle terminals : 9200WW

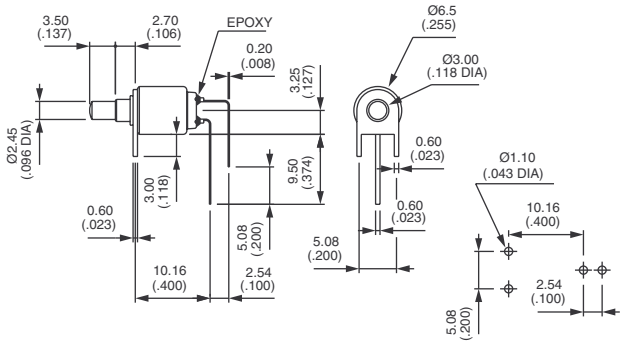
MODEL STRUCTURE

Right angle terminals : 9200WW



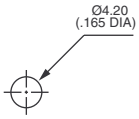
9232WW Normally Closed

9233WW Normally Open



B

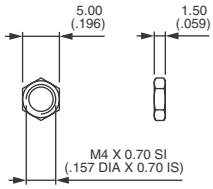
PANEL CUT-OUT



For threaded bushing models.

STANDARD HARDWARE

9500 - 9200



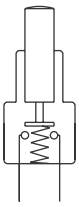
U544 (nickel plated)

MODEL STRUCTURE

9000 series

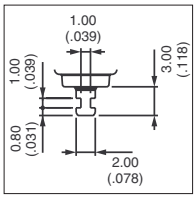
Subminiature momentary pushbutton switches

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

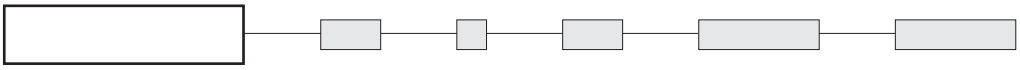


NO
(function 3)

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



MODEL STRUCTURE

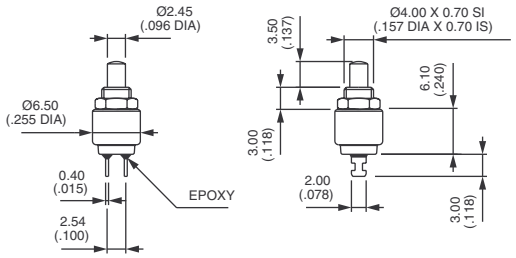


B

Threaded bushing - solder lugs : 9500N



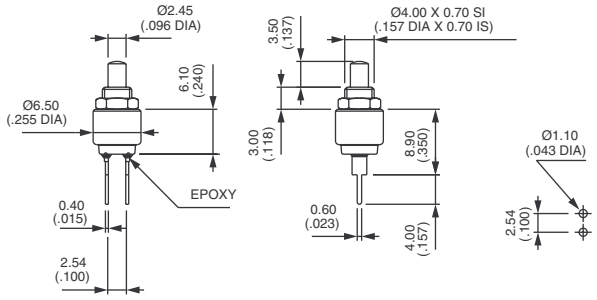
9533N Normally Open



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



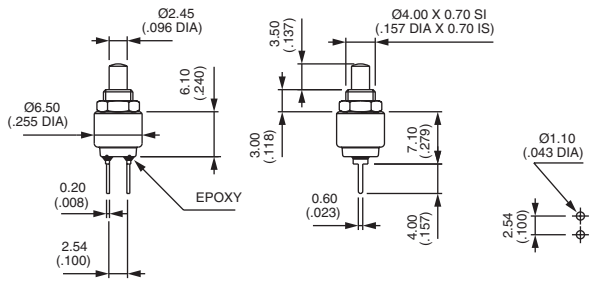
9233N Normally Open



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



9133 Normally Open



9000 series

Subminiature momentary puhsbutton switches

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

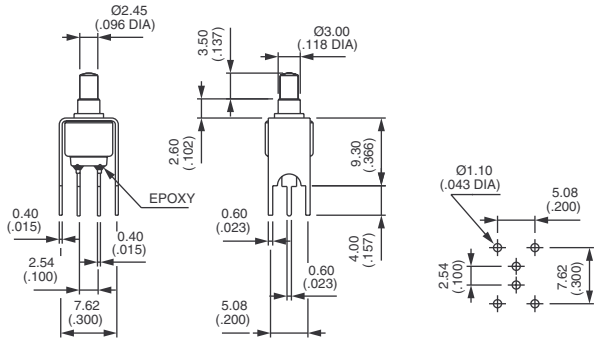
MODEL STRUCTURE

B

Straight PC terminals - tall bracket : 9200NY



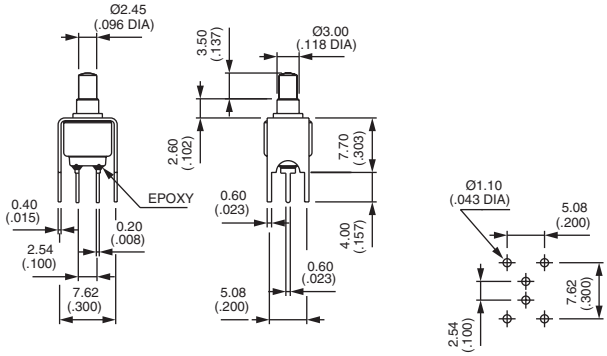
9233NY Normally Open



Straight PC terminals - short bracket : 9100Y



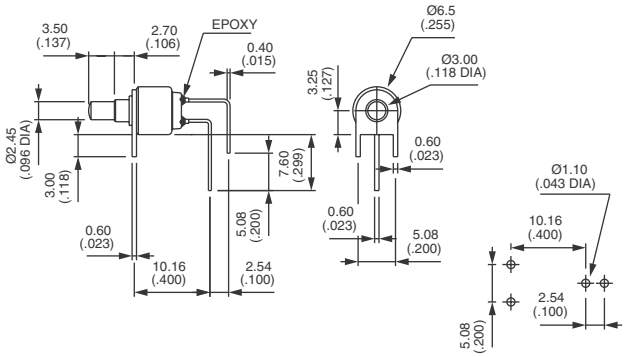
9133Y Normally Open



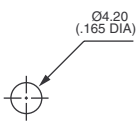
Right angle terminals - vertical : 9100WW



9133WW Normally Open



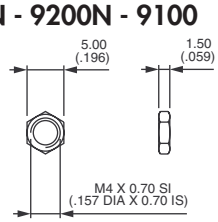
PANEL CUT-OUT



For threaded bushing models.

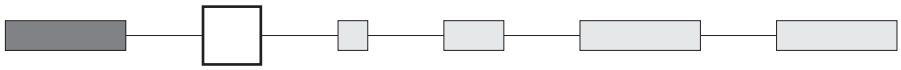
STANDARD HARDWARE

9500N - 9200N - 9100



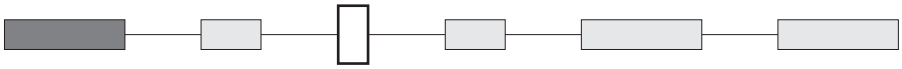
U544 (nickel plated)

CONTACT MATERIALS



CD Gold plated brass (standard)

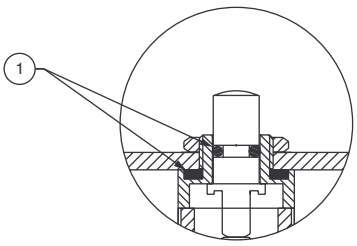
SEALING



Blank Epoxy sealed terminals standard

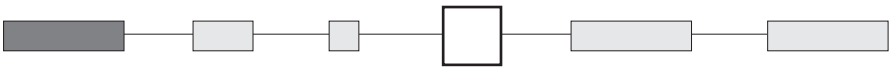
K Front panel sealing by two O-rings. Protects the switch against water and dust.
Panel seal withstands 0,1 bar pressure.

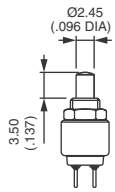
Option K for models 9533N, 9233N and 9133 only.



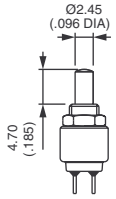
① O-rings

PLUNGERS

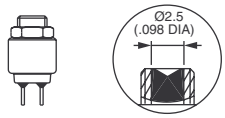




Blank
Standard

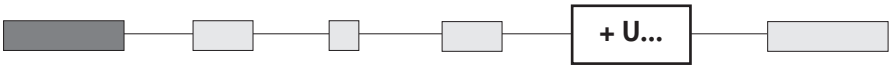


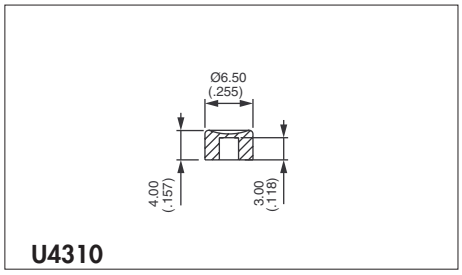
-4
Long



-0
Flush

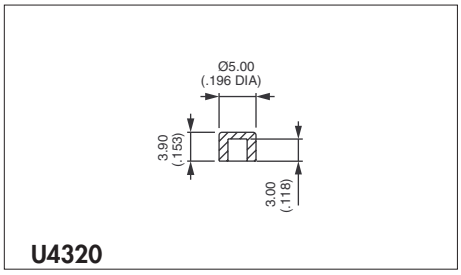
CAPS





U4310

For use with plunger -4 only

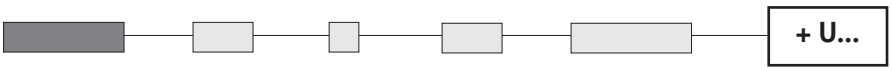


U4320

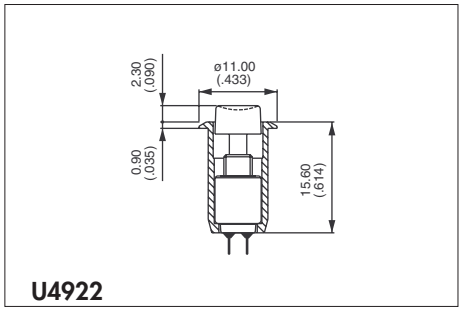
For use with plunger -4 only

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



U4922

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 : Ø 8,15 mm ± 0,05
(.320 DIA ± .002)