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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



13000X778 series

High performance pushbutton switches - threaded bushing Ø 11,9 (15/32) - momentary

Distinctive features

UG1410A

- ❑ **3-pole configurations now available !**

- ❑ **Agency approvals**



CECC 96401-001 (double pole only)

This range of professional switches is suitable for use in military and other high specification environments.

- ❑ **Contacts**

Highly reliable contacts suitable for low level applications or power applications

- ❑ **Double shell case**

For high mechanical strength and high electrical insulation.

- ❑ **Compact size**

The small rear end of the switch allows space savings behind the panel.

- ❑ **Finish**

Black finish on body, bushing, plunger and hardware.

- ❑ **Full sealing**

Panel sealed to IP 67, these switches are frontal sealed by three O-rings and have full rear end sealing.



The company reserves the right to change specifications without notice.

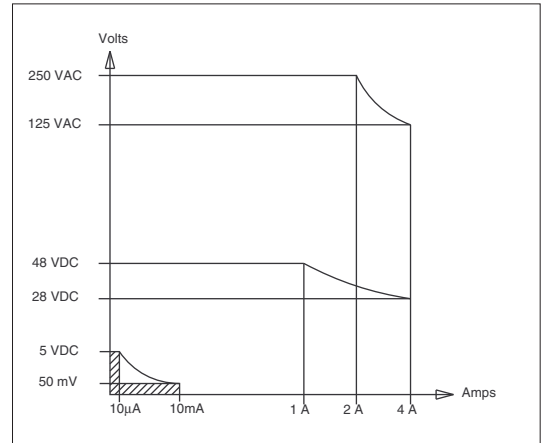
13000X778 series

High performance pushbutton switches - threaded bushing \varnothing 11,9 (15/32) - momentary

Specifications

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 4A 28VDC
- Minimum load : 10mA 50mV, 10 μ A 5VDC
When used above 300mA 28VDC, the gold plating is removed on contact areas and is considered only as a protection against oxidation during storage.
- Initial contact resistance : 10 m Ω max.
- Insulation resistance : 1.000 M Ω min. at 500VDC
- Dielectric strength :
 - 1.000 Vrms 50 Hz min. between terminals
 - 2.000 Vrms 50 Hz min. between poles
 - 2.000 Vrms 50 Hz min. between terminals and frame
- Contact bounce : 2 ms max.
- Electrical life :
 - At 4A 28VDC : 10.000 cycles
 - At low level (50mV 10mA) : 150.000 cycles

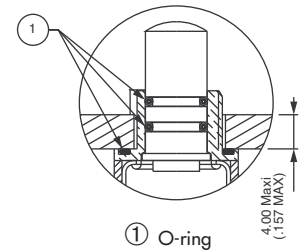


MATERIALS

- Case : diallyphthalate (DAP) with PBT external shell (epoxy sealed)
- Actuator : brass, black chrome plated
- Bushing : brass, black chrome plated
- Contacts : silver inlay - gold plated over nickel barrier

SEALING

- Front panel sealing by three O-rings
- Panel seal withstands 1 bar pressure and remains sealed even when the switch is operated.
- Epoxy sealed terminals
- Splash-proof case



GENERAL SPECIFICATIONS

- Total travel : 2 mm (.078)
- Torque : 1,50 Nm (1.10 Ft.lb) max. applied to nut
- Panel thickness : 5 mm (.196) max.
- Shock test : 50g - 11ms (IEC 68-2-27)
- Vibrations : 10-500 Hz - 10g (IEC68-2-6)
- Operating temperature : -40°C to +85°C
- Humidity test : 56 days, 93 % R.H., 40°C (IEC 68-2-3)
- Salt spray test : 96 hours (IEC 68-2-11)

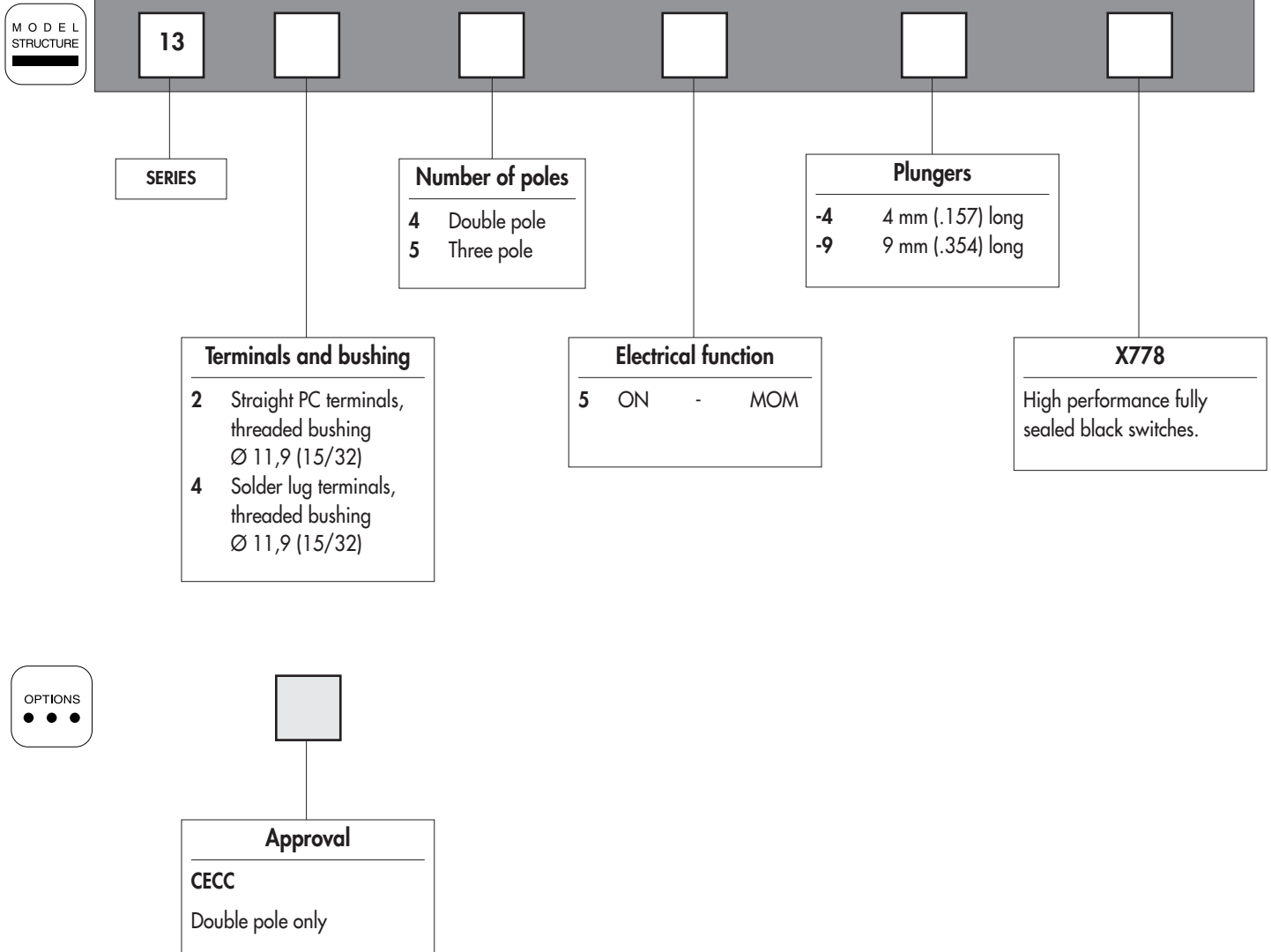
APPROVALS

Many double pole models have full CECC approval. Consult factory for details of approved models. To order switches marked CECC, complete appropriate box of ordering format.

13000X778 series

High performance pushbutton switches - threaded bushing Ø 11,9 (15/32) - momentary

Overview



ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as in above chart

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



Sealing boots can be used to further protect the switches against dust and water. They are presented in section H.



Mounting accessories : standard hardware supplied with all models : 1 hex nut 14 (.551) across flats, part number U41. This nut is presented after model structure of switches.

Security cap available to prevent inadvertent plunger operation. See section I.

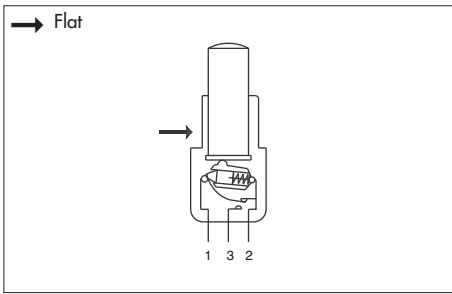


Packaging unit : 25 pieces

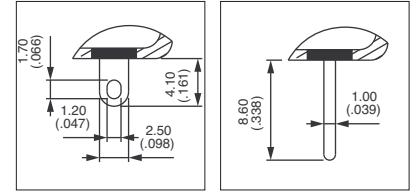
13000X778 series

High performance pushbutton switches - threaded bushing $\varnothing 11,9$ (15/32) - momentary

Fully sealed - black



• Quick-break momentary pushbutton switches



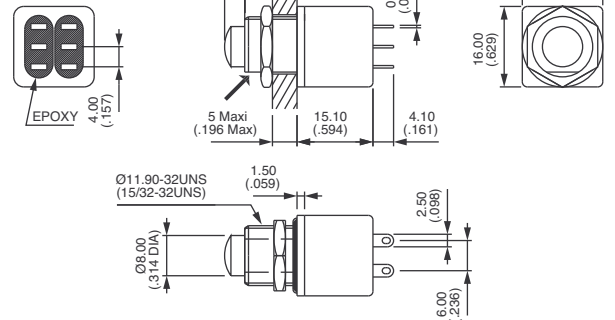
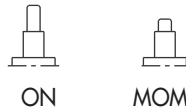
MODEL
STRUCTURE



Solder lug terminals - double pole - 4 mm (.157) plunger → Flat



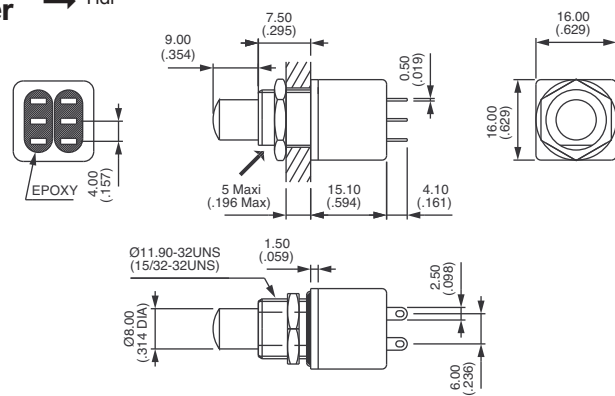
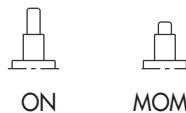
13445-4X778



Solder lug terminals - double pole - 9 mm (.354) plunger → Flat



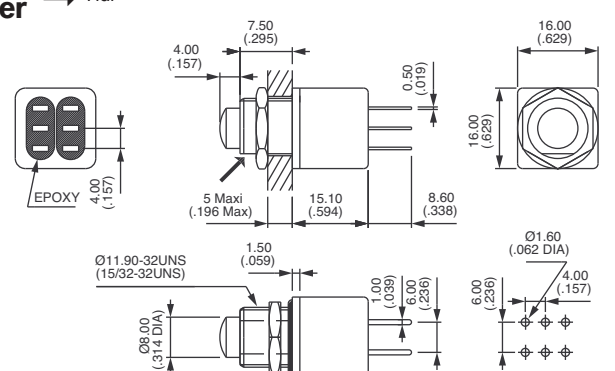
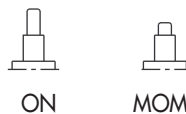
13445-9X778



Straight PC terminals - double pole - 4 mm (.157) plunger → Flat



13245-4X778



13000X778 series

High performance pushbutton switches - threaded bushing \varnothing 11,9 (15/32)

Fully sealed - black

Straight PC terminals - three pole - 9 mm (.354) plunger → Flat



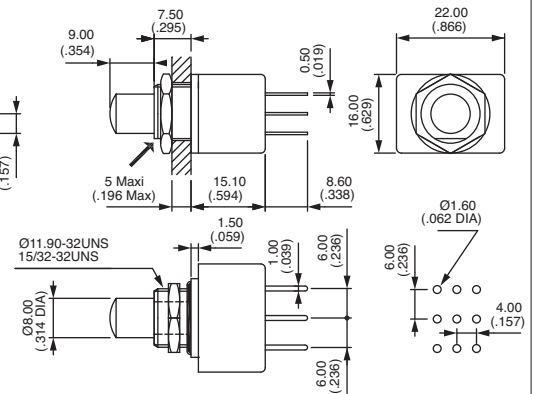
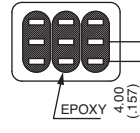
13255-9X778



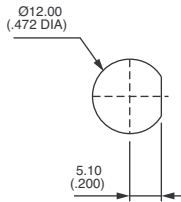
ON



MOM

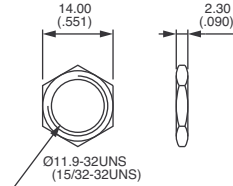


PANEL CUT-OUT



STANDARD HARDWARE

Hex nut

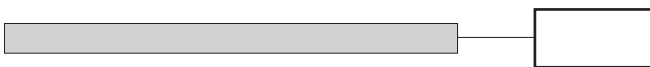


U41 (black)

POSITIONS AND CONNECTIONS

FUNCTION	BUTTON POSITION AND CONNECTIONS		TERMINAL IDENTIFICATION
	I	II	
DOUBLE POLE	ON	MOM	→ Flat
13245	A 1-2	A 1-3	
13445	B 1-2	B 1-3	 Pre-travel : 1 mm (.039) Over-travel : 1 mm (.039) Total travel : 2 mm (.078)
THREE POLE	A 1-2	A 1-3	
13255	B 1-2	B 1-3	
13455	C 1-2	C 1-3	

AGENCY APPROVAL



CECC CECC 96401-001 (double pole only)

Marking : to order switches marked CECC, please complete above box with "CECC".
 Blank : no agency approval required.