

13000X778 series

High performance pushbutton switches • threaded bushing Ø 11.9 mm • alternate action



DISTINCTIVE FEATURES

Alternate action

Fully sealed at front and back

Double shell case for high mechanical strength and electrical insulation

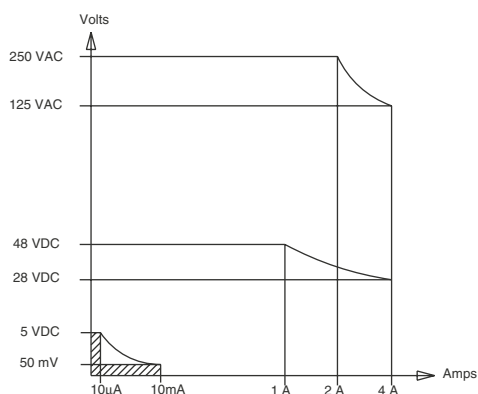
Highly reliable contacts

Compact size



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 4 A 28 VDC
- Minimum load : 10 mA 50 mV, 10 μ A 5 VDC
When used above 300 mA 28 VDC, 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 500 VDC
- 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 4 A 28 VDC : 10,000 cycles
 - At low level (50 mV 10 mA) : 150,000 cycles



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ENVIRONMENTAL SPECIFICATIONS

- Shock test : 50 g - 11 ms (IEC 68-2-27)
- Vibrations : 10-500 Hz - 10 g (IEC68-2-6)
- Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Humidity test : 56 days, 93 % R.H., 40 °C (IEC 68-2-3)
- Salt spray test : 96 hours (IEC 68-2-11)



GENERAL SPECIFICATIONS

- Total travel : 2.5 mm (.098)
- Torque : 1.50 Nm (1.10 Ft.lb) max. applied to nut
- Panel thickness : 8 mm (.315) max.



MATERIALS

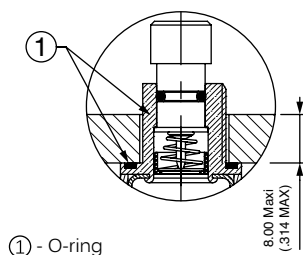
- Case : diallylphthalate (DAP) with PBT external shell (epoxy sealed)
- Actuator : brass, black chrome plated
- Bushing : brass, black chrome plated
- Contacts : silver inlay - gold plated over nickel barrier

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

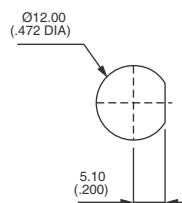


SEALING

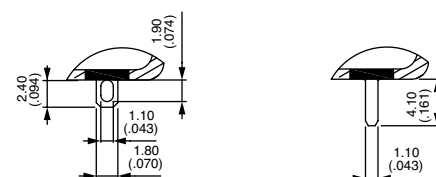
- Front panel sealing by two O-rings
- Panel seal withstands 1 bar pressure and remains sealed even when the switch is operated.
- Epoxy sealed terminals
- Splash-proof case



PANEL CUT-OUT

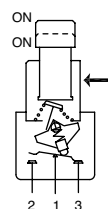


TERMINALS



ELECTRICAL FUNCTION

→ FLAT



POSITIONS AND CONNECTIONS

Function	BUTTON POSITION AND CONNECTIONS		TERMINAL IDENTIFICATION
	I	II	
	ON	ON	→ FLAT
13246 13446	A 1-2 B 1-2	A 1-3 B 1-3	

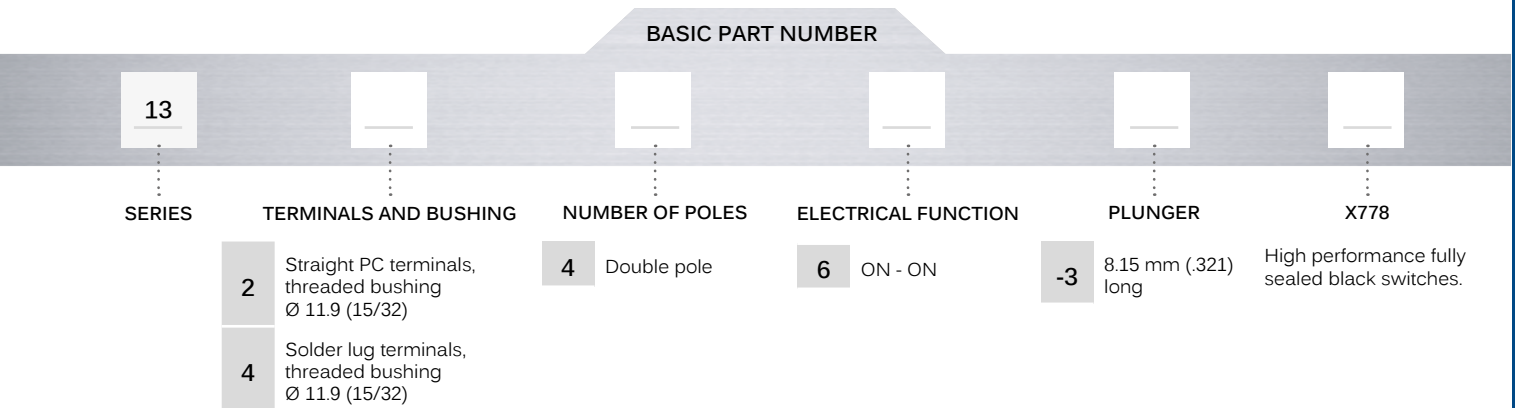


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BUILD YOUR PART NUMBER



ABOUT THIS SERIES

Complete part numbers are shown on next page.



Sealing boots can be used to further protect the switches against dust and water. See "Sealing boots" section of website.



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

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SOLDER LUG TERMINALS - DOUBLE POLE



13446-3X778

ON

ON

STRAIGHT PC TERMINALS - DOUBLE POLE

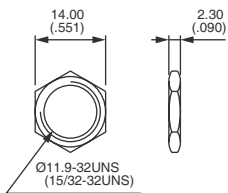


13246-3X778

ON

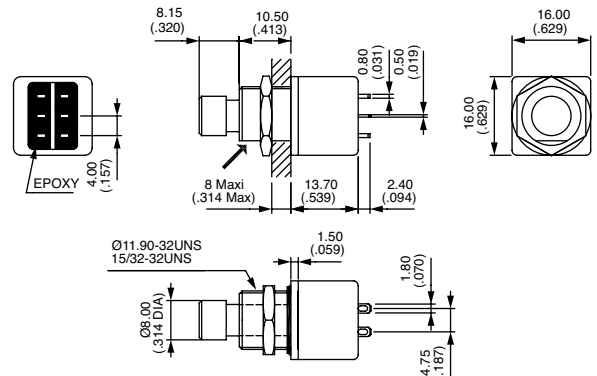
ON

STANDARD HARDWARE - HEX NUT



U41 (black)

→ FLAT



→ FLAT

