Rear mounted sealed pushbutton switches • bushing Ø 16 mm • latching



SWITHTCH 1801

## **DISTINCTIVE FEATURES**

Rear mounting for easier installation Latching action models Sealed to IP67 Illuminated or non-illuminated Flat actuator for optional marking



## **ENVIRONMENTAL SPECIFICATIONS**

- Front panel sealing: IP67 according to IEC 60529
- Shock resistance: 100 g according to IEC 512-4, test 6c
- Vibration resistance: 10-500Hz 10 g according to IEC 512-4, test 6d
- Salt spray: IEC 512-6, test 11f
- $\bullet$  Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)



# **ELECTRICAL SPECIFICATIONS**

- Max. current/voltage rating with resistive load : 100 mA 24 VDC - 200,000 cycles
- Initial contact resistance : 100 m $\Omega$  max.
- $\bullet$  Insulation resistance : 1  $\mbox{G}\Omega$  min. at 500 VDC
- Dielectric strength: 1.500 Vrms 50 Hz between terminals





		LED COMPONENT SPECIFICATIONS		
LED color	Forward current	Typ. forward voltage	Max. forward voltage	
Super red (LOS)	20 mA	1.95 V	1.95 V	
Yellow (L0Y)	20 mA	2 V	2.05 V	
Green (L0G)	20 mA	2.1 V	2.5 V	
Blue (L0B)	20 mA	3.2 V	4 V	

A resistor must be series-connected by the user.

Resistor value = supply voltage - LED forward voltage

LED forward current

On flying lead versions, the LED resistor can be integrated by APEM on request.

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### **GENERAL SPECIFICATIONS**

- Panel thickness : 3 mm (.118) max.
- Total travel : 2.5 mm (.098) ± 0.3 mm
- Typical operating force : 5 N ± 2 N
- Low level or mechanical life: 200,000 cycles
- Torque: 0.7 Nm max. applied to nut
- Soldering: 320 °C (662 °F) max. for 3 sec.



### **MATERIALS**

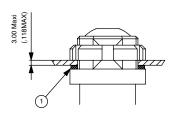
- Case: thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts : silver, gold plated
- Multi-wire leads AWG20, section 0.6 mm<sup>2</sup>
- LED wire: AWG26, section 0.12 mm<sup>2</sup>
- Lens : polycarbonate
- Terminal seal: epoxy

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

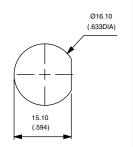


# **MOUNTING**

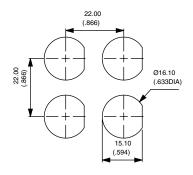
PANEL CUT-OUT





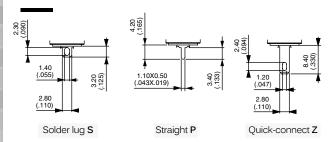


#### MATRIX MOUNTING





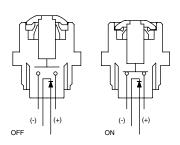
# **TERMINALS**



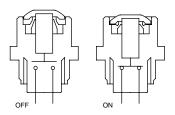


# **ELECTRICAL FUNCTIONS**

ILLUMINATED MODELS



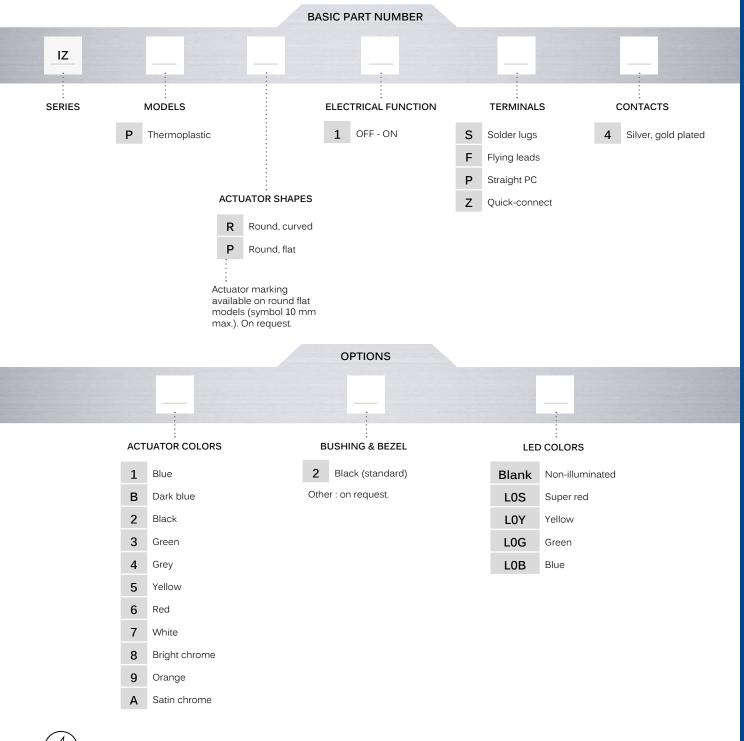
NON-ILLUMINATED MODELS



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## **BUILD YOUR PART NUMBER**



# (4)

### **ABOUT THIS SERIES**

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- Notice: please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- (a) A sealing boot is available to protect the switches against frost and sand. See "Sealing Boots" section of website
- Mounting accessories: Standard hardware supplied: 1 castellated black plastic nut U4249 and 1 silicone flat seal. Wrench tool available under P/N U4028. Order separately.

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### **ILLUMINATED - SOLDER LUG TERMINALS**



Also available with straight PC terminals: IZP•1P4 and quick-connect terminals: IZP•1Z4.

#### **ILLUMINATED - FLYING LEAD TERMINALS**



Wire colors: black: NO contact, red: LED anode(+), blue: LED cathode (-)

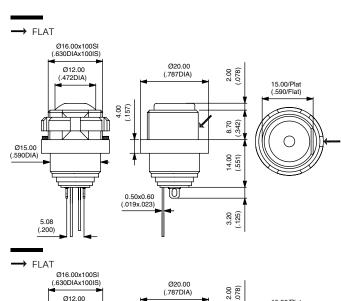
### NON-ILLUMINATED - SOLDER LUG TERMINALS

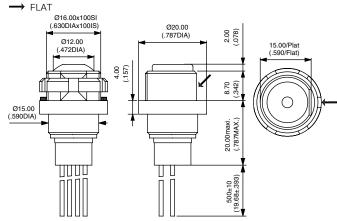


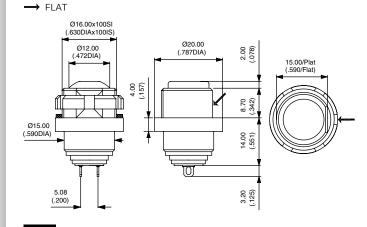
Also available with straight PC terminals: IZP•1P4 and quick-connect terminals: IZP•1Z4.

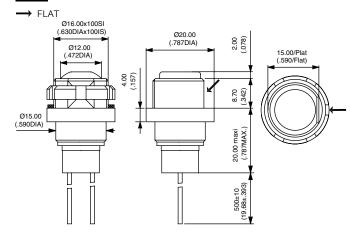
### NON-ILLUMINATED - FLYING LEAD TERMINALS











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ACTUATOR COLORS
BASIC P/N
1 Blue B Dark blue 2 Black 3 Green 4 Grey 5 Yellow 6 Red 7 White 8 Bright chrome 9 Orange A Satin chrome
BUSHING AND BEZEL
BASIC P/N
B Black (standard) Other : on request.
LED COLORS
BASIC P/N
Blank Non-illuminated LOS Super Red LOY Yellow LOG Green LOB Blue