

IR series

Sealed pushbutton switches •
bushing Ø 16 mm • latching



DISTINCTIVE FEATURES

Latching action models

Sealed to IP67

Illuminated or non-illuminated

Flat round 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
- Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load (gold plated contacts) :
 - Code 4 : 100 mA 24V DC, 200,000 cycles
 - Code 7 : 4 A 12 VDC, 200,000 cycles
 - 1 A 48 VDC, 200,000 cycles
 - 3 A 48 VDC, 75,000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms between terminals



LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (0S)	20 mA	1.95 V	1.95 V
Yellow (0Y)	20 mA	2 V	2.05 V
Green (0G)	20 mA	2.1 V	2.5 V
Blue (0B)	20 mA	3.2 V	4 V

A resistor must be series-connected by the user.
Resistor value = $\frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$

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

IR series

Sealed pushbutton switches •
bushing Ø 16 mm • latching

GENERAL SPECIFICATIONS

- Panel thickness : 8 mm (.314) 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 : 0.8 Nm max. applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.

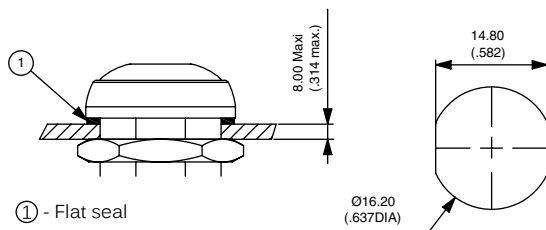
MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts : silver, gold plated (codes 4 and 7)
- Multi-wire leads AWG20, section 0.6 mm²
- LED wire : AWG26, section 0.12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

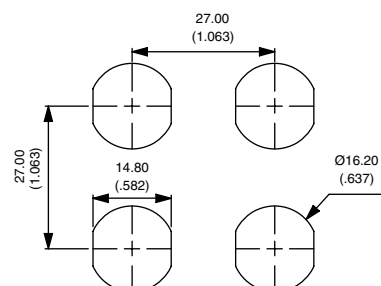
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

MOUNTING

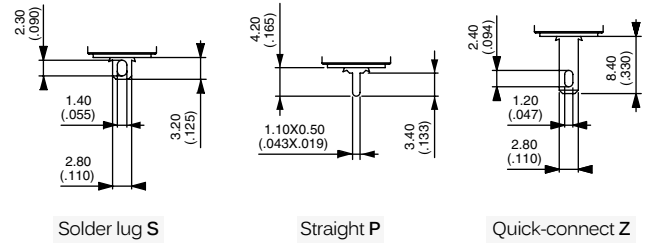
PANEL CUT-OUT



MATRIX MOUNTING

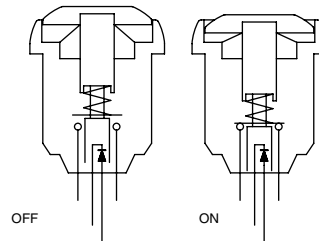


TERMINALS

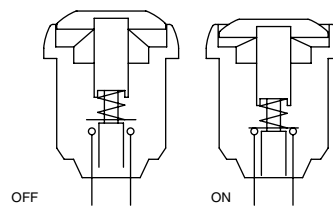


ELECTRICAL FUNCTIONS

ILLUMINATED MODELS



NON-ILLUMINATED MODELS

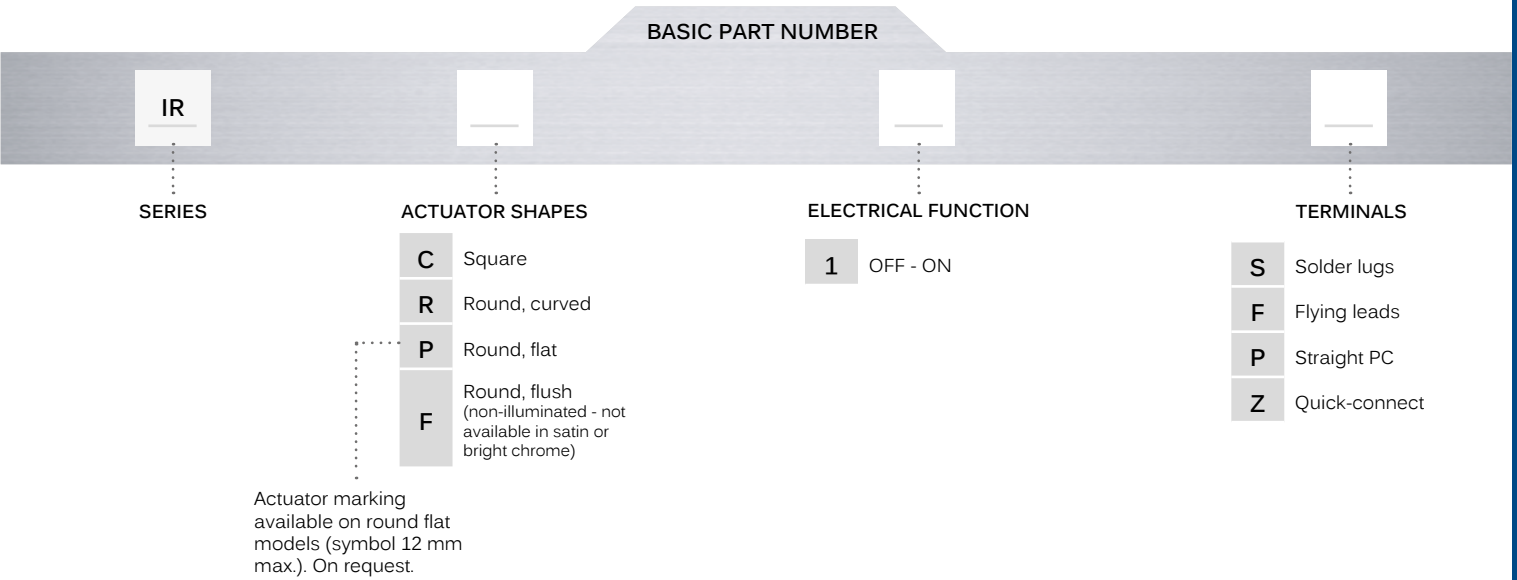


IR series

Sealed pushbutton switches •
bushing Ø 16 mm • latching



BUILD YOUR PART NUMBER



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 sealing boot** is available to protect the switches against frost and sand (P/N U7125). Round models only. See "Sealing Boots" section of website.
- Mounting accessories** : Standard hardware supplied : 1 hex nut 19 mm (.748) across flats and 1 flat seal. Hex nut P/N U6715.

IR series

Sealed pushbutton switches •
bushing Ø 16 mm • latching

ROUND - ILLUMINATED SOLDER LUG TERMINALS



- Curved actuator
 - IRR1S** OFF - ON
- Flat actuator
 - IRP1S** OFF - ON

Also available with straight PC terminals : **IR•1P**
& quick-connect terminals : **IR•1Z**.

ROUND - ILLUMINATED FLYING LEAD TERMINALS



- Curved actuator
 - IRR1F** OFF - ON
- Flat actuator
 - IRP1F** OFF - ON

Wire colors : black : contact, red : LED anode (+), blue : LED cathode (-)

ROUND - NON-ILLUMINATED SOLDER LUG TERMINALS



- Curved actuator
 - IRR1S** OFF - ON
- Flat actuator
 - IRP1S** OFF - ON

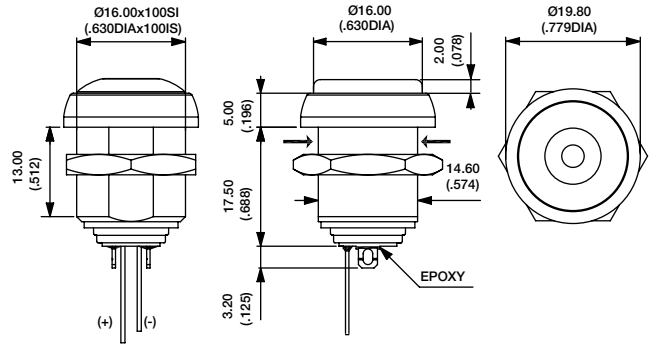
Also available with straight PC terminals : **IR•1P**
& quick-connect terminals : **IR•1Z**.

ROUND - NON-ILLUMINATED FLYING LEAD TERMINALS

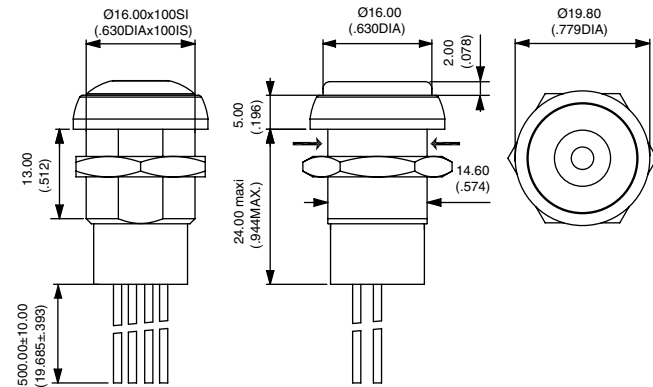


- Curved actuator
 - IRR1F** OFF - ON
- Flat actuator
 - IRP1F** OFF - ON

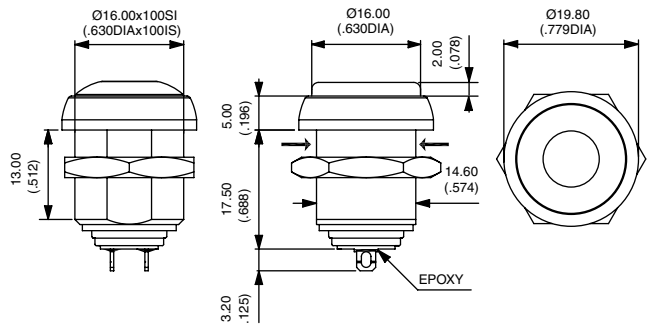
→ FLAT



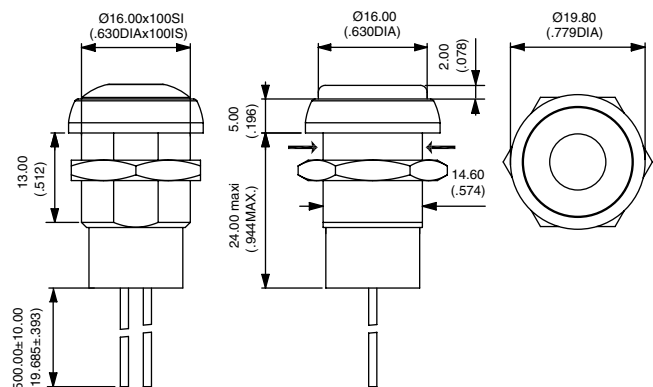
→ FLAT



→ FLAT



→ FLAT



Sealed pushbutton switches •
bushing Ø 16 mm • latching

SQUARE - ILLUMINATED SOLDER LUG TERMINALS



Curved actuator

IRC1S

OFF - ON

Also available with straight PC terminals : **IR•1P**
& quick-connect terminals : **IR•1Z**.

SQUARE - ILLUMINATED FLYING LEAD TERMINALS



Curved actuator

IRC1F

OFF - ON

Wire colors : black : contact, red : LED anode(+), blue : LED cathode (-)

SQUARE - NON-ILLUMINATED SOLDER LUG TERMINALS



Curved actuator

IRC1S

OFF - ON

Also available with straight PC terminals : **IRC1P4**
& quick-connect terminals : **IRC1Z4**.

SQUARE - NON-ILLUMINATED FLYING LEAD TERMINALS

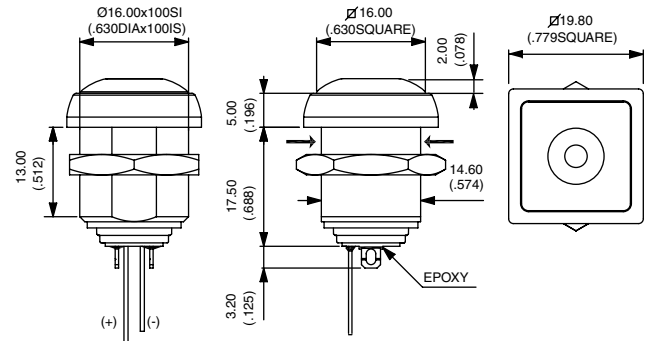


Curved actuator

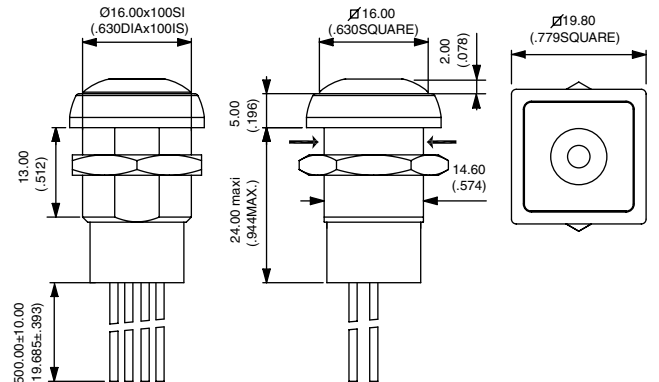
IRC1F

OFF - ON

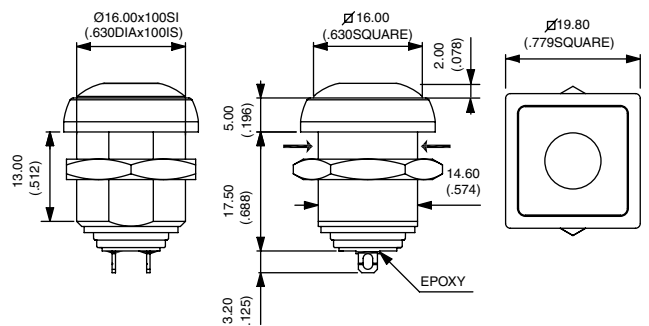
→ FLAT



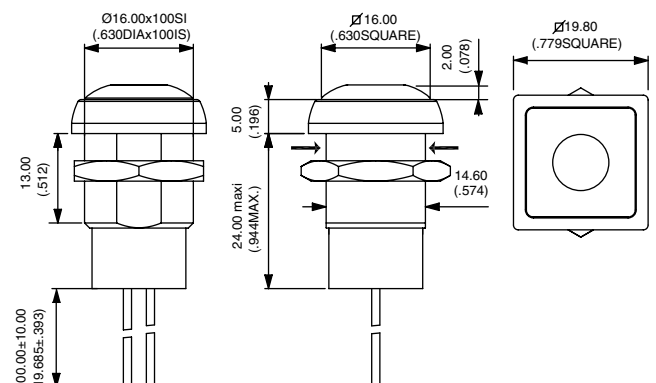
→ FLAT



→ FLAT



→ FLAT



IR series

Sealed pushbutton switches •
bushing Ø 16 mm • latching

ACTUATOR COLORS



- 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



- 0 Transparent (round bezel only)
- 2 Black (standard)
- 7 White

ILLUMINATION



- Blank Non-illuminated
- L Central lens
- B Bezel (round only)

LED COLORS



- Blank Non-illuminated
- 05 Super red
- 0Y Yellow
- 0G Green
- 0B Blue