

IR series

Sealed pushbutton switches • bushing Ø 16 mm • momentary • microswitch version



DISTINCTIVE FEATURES

Microswitch technology up to 5 A

Tactile feedback

Sealed to IP67

Illuminated or non-illuminated

Flat round actuator for optional marking



ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing : IP67 according to IEC 60529
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)



GENERAL SPECIFICATIONS

- Panel thickness : 3 mm (.118) max.
- Total travel : 1.6 mm (.062) ± 0.3 mm
- Typical operating force : 4 N ± 2 N
- Mechanical life : 1,000,000 cycles
- Torque : 0.8 Nm max. applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load (microswitch) :
5 A 250 VAC, 50,000 cycles (function 7)
5 A 250 VAC, 25,000 cycles (function 8)
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 750 Vrms between terminals
2,000 Vrms between terminals and frame



LED COMPONENT SPECIFICATIONS

| LED color | Forward current | Typ. forward voltage | Max. forward voltage |
|----------------|-----------------|----------------------|----------------------|
| Super red (0S) | 20 mA | 2 V | 2.5 V |
| Yellow (0Y) | 20 mA | 2 V | 2.5 V |
| Green (0G) | 10 mA | 2 V | 2.5 V |
| Blue (0B) | 10 mA | 3.3 V | 3.8 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 • momentary • microswitch version

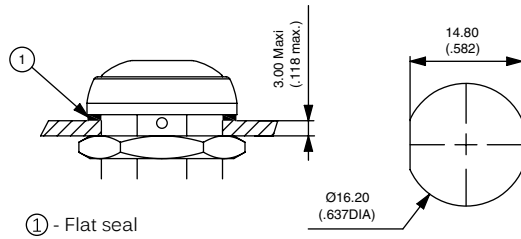
MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : silver
- Lens : polycarbonate

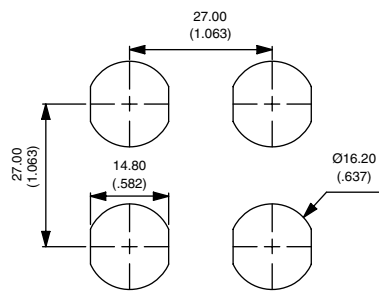
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

MOUNTING

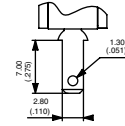
PANEL CUT-OUT



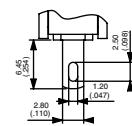
MATRIX MOUNTING



TERMINALS



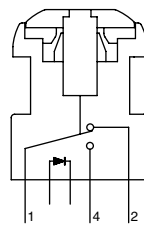
Quick-connect
Function 7 (NC+NO))



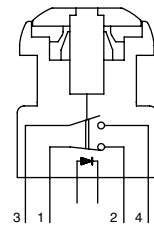
Solder lug
Function 8 (NC/NO))

ELECTRICAL FUNCTIONS

ILLUMINATED MODELS

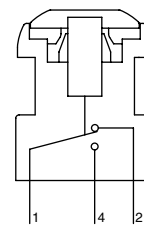


Function 7 (NC+NO))

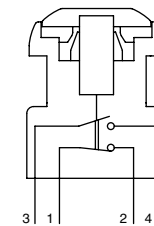


Function 8 (NC/NO))

NON-ILLUMINATED MODELS



Function 7 (NC+NO))

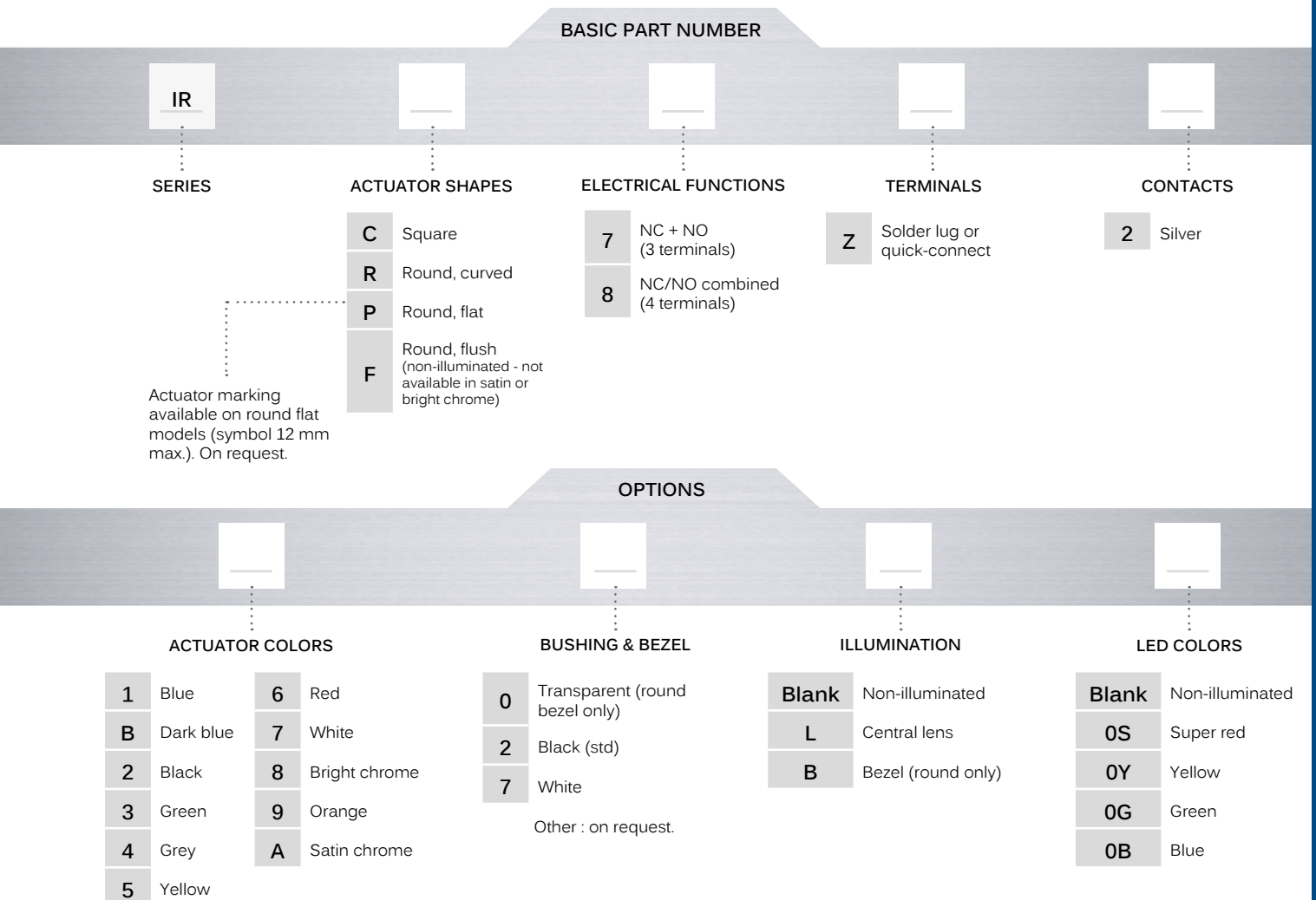


Function 8 (NC/NO))

IR series

Sealed pushbutton switches • bushing Ø 16 mm • momentary • microswitch version




BUILD YOUR PART NUMBER



The IR series for high currents is based on a microswitch. Please note that this microswitch is supplied separately.

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 • momentary • microswitch version

ROUND - ILLUMINATED - QUICK-CONNECT TERMINALS - NC+NO - 3 TERMINALS





Curved actuator
IRR7Z2  NC+NO

Flat actuator
IRP7Z2  NC+NO

ROUND - ILLUMINATED - SOLDER LUG TERMINALS - NC/NO - 4 TERMINALS




Curved actuator
IRR8Z2  NC/NO combined


Flat actuator
IRP8Z2  NC/NO combined

Terminals should be used as solder lugs only.

ROUND - NON-ILLUMINATED - QUICK-CONNECT TERMINALS - NC+NO - 3 TERMINALS





Curved actuator
IRR7Z2  NC+NO

Flat actuator
IRP7Z2  NC+NO

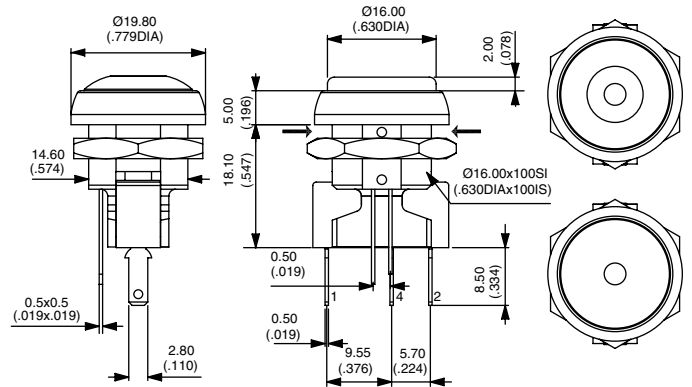
ROUND - NON-ILLUMINATED - SOLDER LUG TERMINALS - NC/NO - 4 TERMINALS



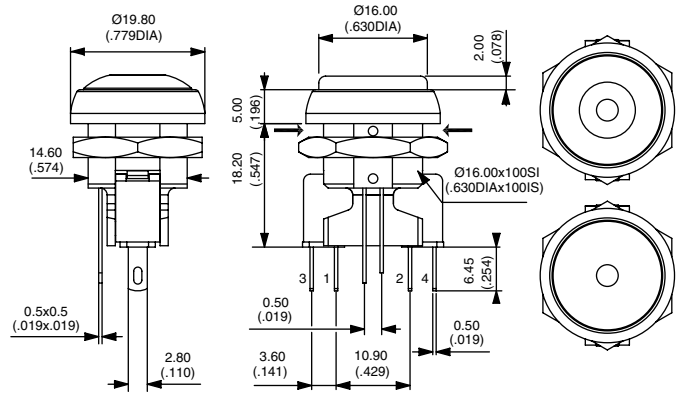
Curved actuator
IRR8Z2  NC/NO combined

Flat actuator
IRP8Z2  NC/NO combined

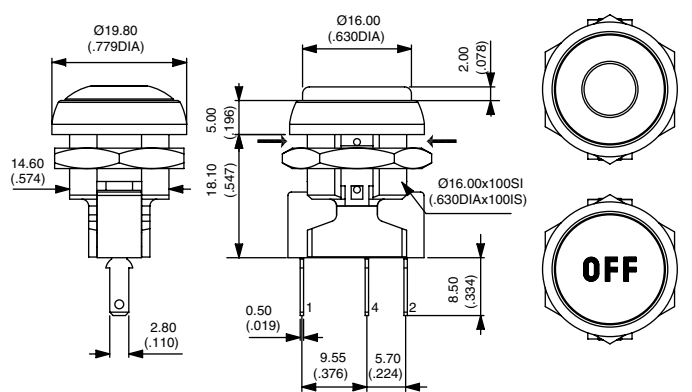
→ FLAT



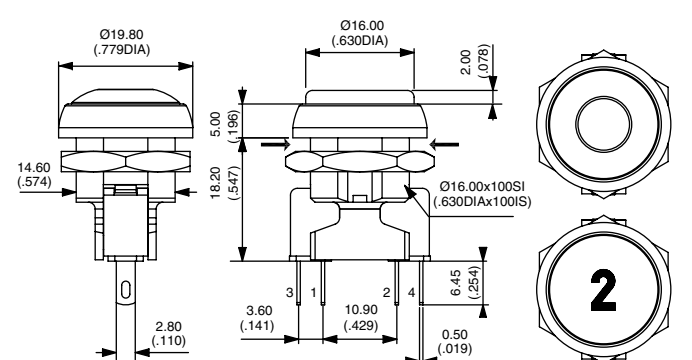
→ FLAT



→ FLAT



→ FLAT



Sealed pushbutton switches • bushing \varnothing 16 mm • momentary • microswitch version

SQUARE - ILLUMINATED - QUICK-CONNECT TERMINALS - NC+NO - 3 TERMINALS



IRC7Z2



NC+NO

SQUARE - ILLUMINATED - SOLDER LUG TERMINALS - NC/NO - 4 TERMINALS



IRC8Z2



NC/NO combined

Terminals should be used as solder lugs only.

SQUARE - NON-ILLUMINATED - QUICK-CONNECT TERMINALS - NC+NO - 3 TERMINALS



IRC7Z2



NC+NO

SQUARE - NON-ILLUMINATED - SOLDER LUG TERMINALS - NC/NO - 4 TERMINALS



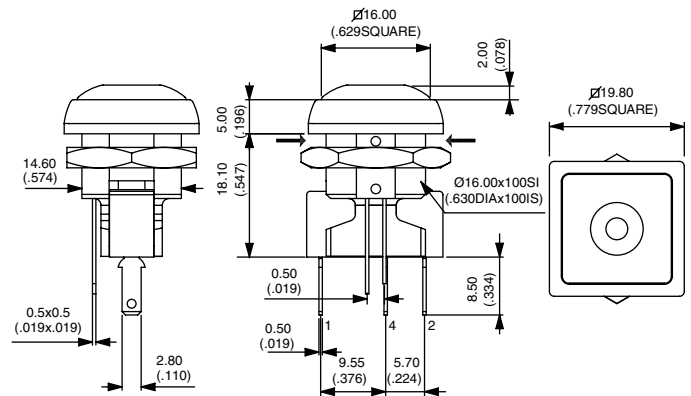
IRC8Z2



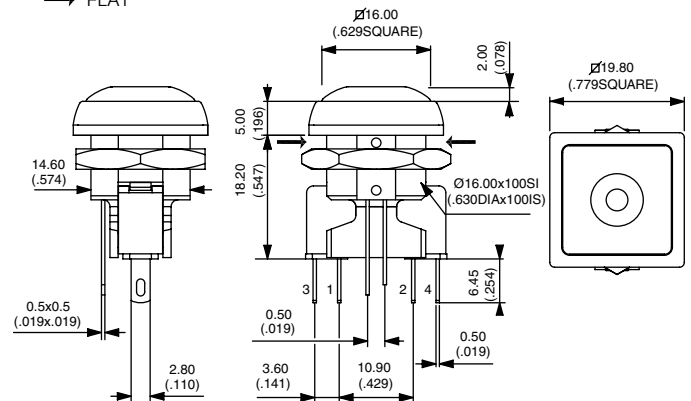
NC+NO

Terminals should be used as solder lugs only.

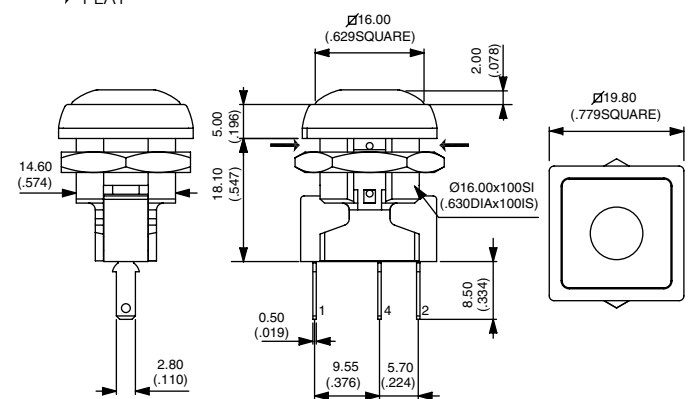
→ FLAT



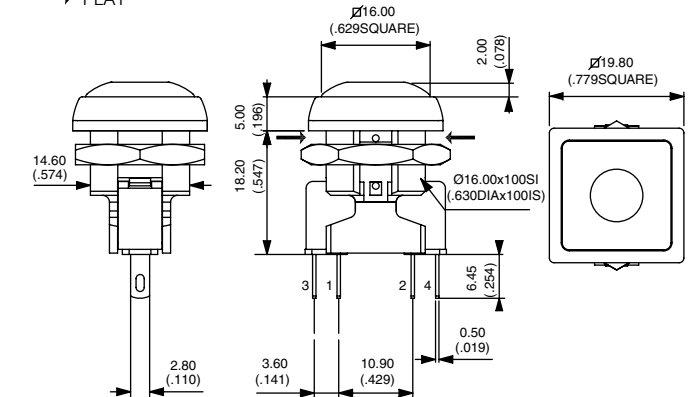
→ FLAT



→ FLAT



→ FLAT



IR series

Sealed pushbutton switches • bushing Ø 16 mm • momentary • microswitch version

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