

IR series

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



DISTINCTIVE FEATURES

Screw version up to 4 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
- 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 : 200 mA 48 VDC, 500,000 cycles
Code 7 : 5 A 28 VDC, 70,000 cycles
 - Silver contacts (code 2) - screw terminals : 4 A 48 VDC, 500,000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms



LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (0S)	20 mA	2.1 V	2.3 V
Yellow (0Y)	20 mA	2.1 V	2.3 V
Green (0G)	20 mA	2.1 V	2.3 V
Blue (0B)	20 mA	3.2 V	3.8 V
White (0W)	20 mA	3.35 V	4.25 V
Red/Green (SG)	20 mA	Red: 1.95 V / green: 2.1 V	2.5 V
Yellow/green (YG)	20 mA	Yellow: 2 V / green: 2.1 V	2.5 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.

The company reserves the right to change specifications without notice.

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GENERAL SPECIFICATIONS

- Panel thickness : 8 mm (.314) max.
- Total travel : 1.6 mm (.062) ± 0.3 mm
- Typical operating force : 4 N ± 2 N
- Low level or mechanical life : 1,000,000 cycles
- Torque : 0.8 Nm max. applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.



MATERIALS

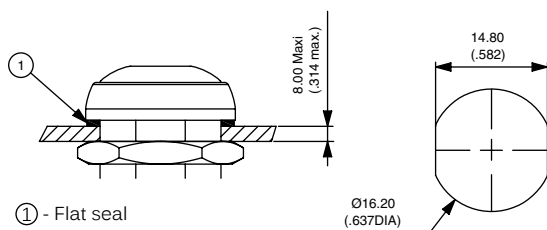
- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : 4 and 7 : silver, gold plated
2 : silver (screw terminals)
- Multi-wire lead AWG20, section 0.6 mm²
- LED wire : AWG26, section 0.12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

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

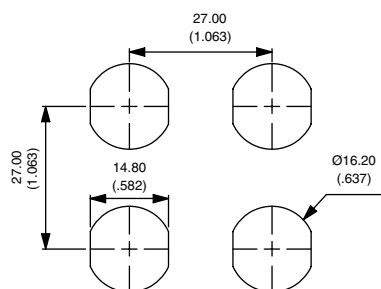


MOUNTING

PANEL CUT-OUT



MATRIX MOUNTING

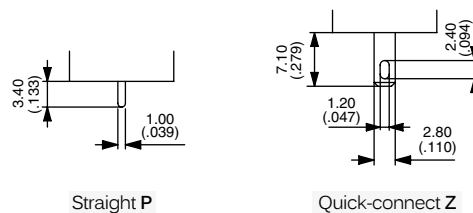


TERMINALS

ILLUMINATED MODELS

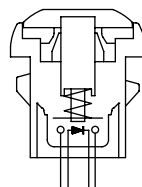


NON-ILLUMINATED MODELS



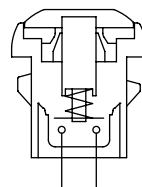
ELECTRICAL FUNCTIONS

ILLUMINATED MODELS



Function 3 (NO)

NON-ILLUMINATED MODELS

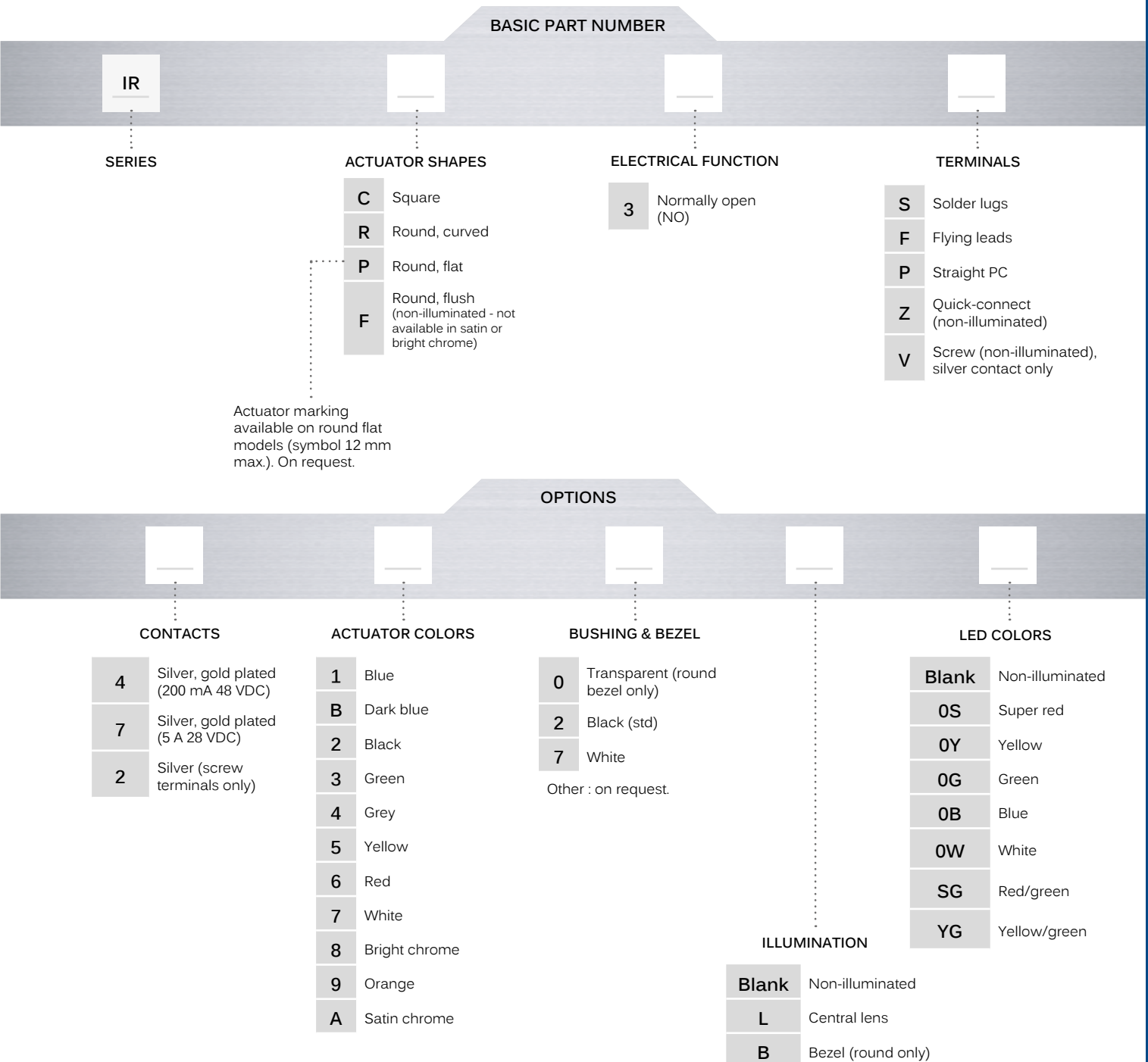


Function 3 (NO)

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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 Boot" section of website.

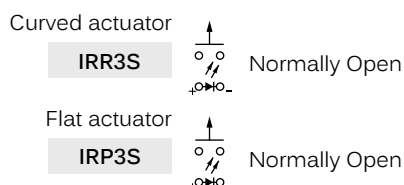


Mounting accessories : Standard hardware supplied : 1 hex nut 19 mm (.748) across flats and 1 flat seal. Hex nut P/N U6715.

IR series

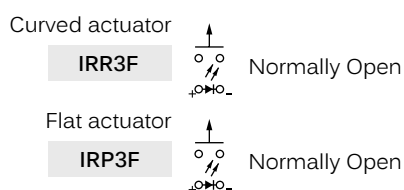
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ROUND - ILLUMINATED SOLDER LUG TERMINALS



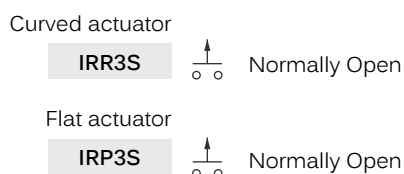
Also available with straight PC terminals : **IR•3P**.
LED color is indicated by the bottom of the switch.

ROUND - ILLUMINATED FLYING LEAD TERMINALS



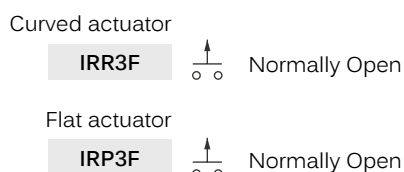
Wire colors : black : NO contact, red : LED anode (+), blue : LED cathode (-)

ROUND - NON-ILLUMINATED SOLDER LUG TERMINALS

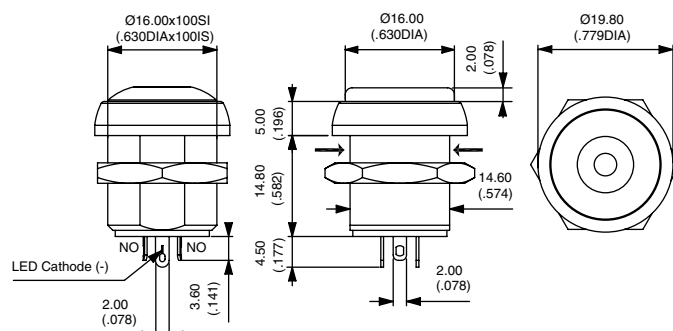


Also available with straight PC terminals : **IR•3P**
and quick-connect terminals : **IR•3Z**.

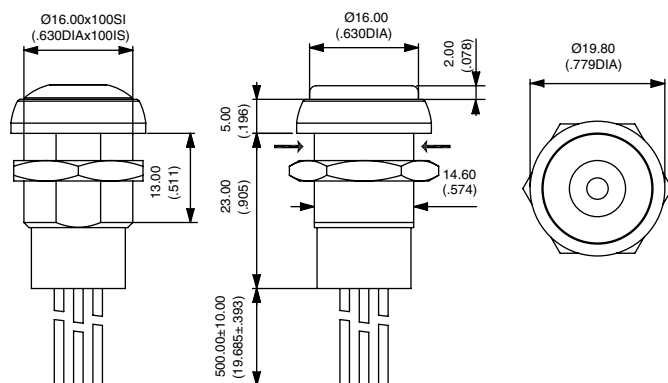
ROUND - NON-ILLUMINATED FLYING LEAD TERMINALS



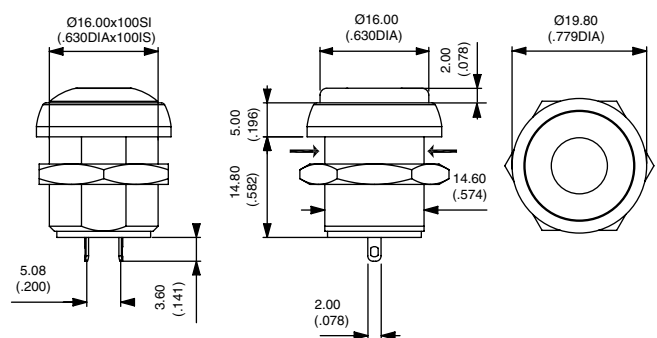
→ FLAT



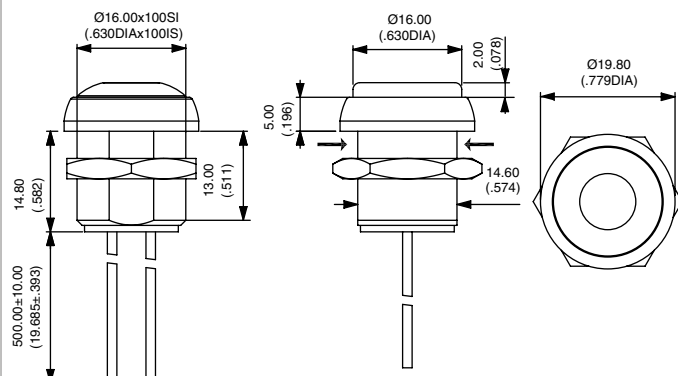
→ FLAT



→ FLAT



→ FLAT



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ROUND - NON-ILLUMINATED SCREW TERMINALS



Curved actuator

IRR3V



Normally Open

Flat actuator

IRP3V



Normally Open

SQUARE - ILLUMINATED SOLDER LUG TERMINALS



IRC3S



Normally Open

Also available with straight PC terminals : **IRC3P**.
LED color is indicated by the bottom of the switch.

SQUARE - ILLUMINATED FLYING LEAD TERMINALS



IRC3F



Normally Open

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

SQUARE - NON-ILLUMINATED SOLDER LUG TERMINALS



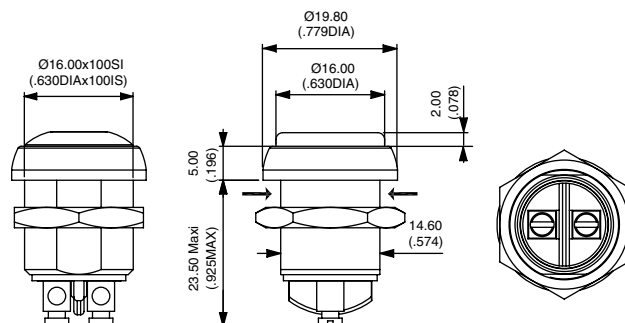
IRC3S



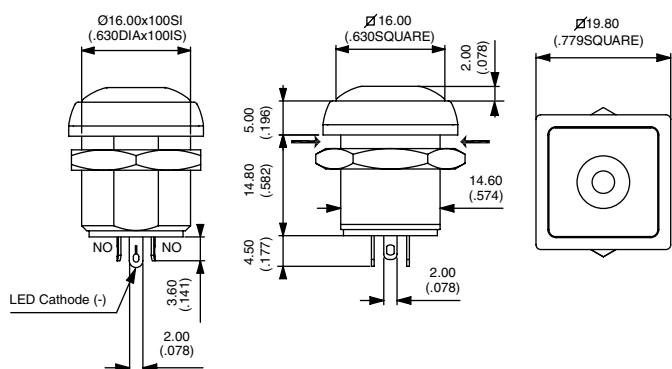
Normally Open

Also available with straight PC terminals : **IRC3P**
and quick-connect terminals : **IRC3Z**.

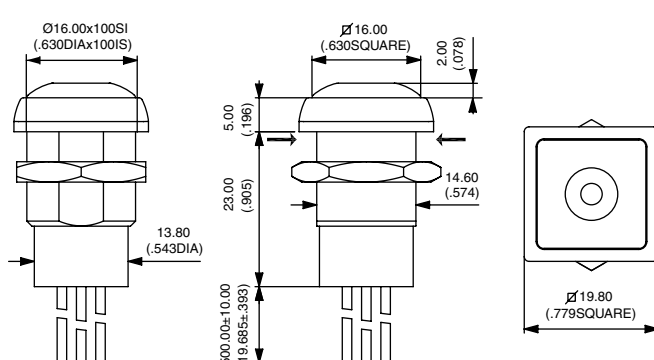
→ FLAT



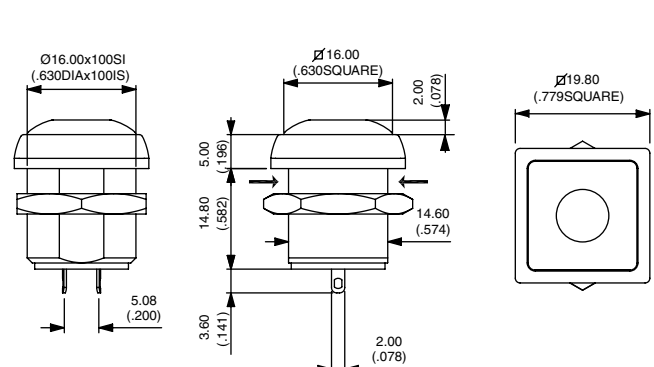
→ FLAT



→ FLAT



→ FLAT



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SQUARE - NON-ILLUMINATED FLYING LEAD TERMINALS

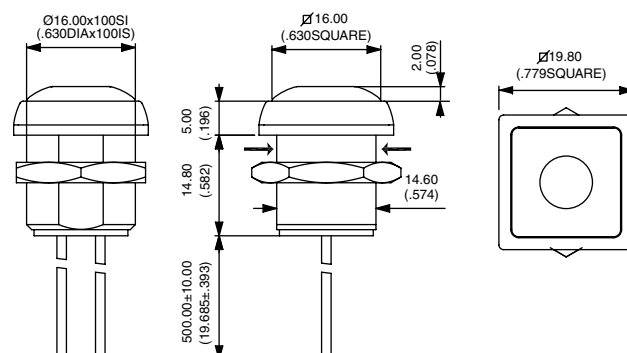


IRC3F



Normally Open

→ FLAT



SQUARE - NON-ILLUMINATED SCREW TERMINALS

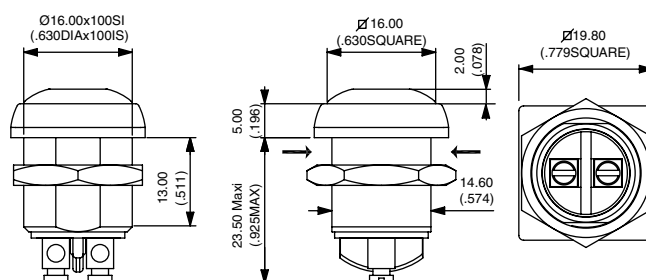


IRC3V



Normally Open

→ FLAT



CONTACTS

BASIC P/N

- 4 Silver, gold plated (200 mA 48 VDC)
- 7 Silver, gold plated (5 A 28 VDC)
- 2 Silver (screw terminals only)

ACTUATOR COLORS

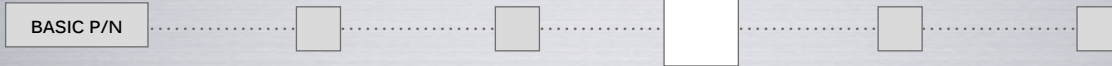
BASIC P/N

- 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

IR series

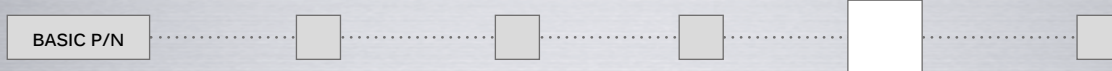
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BUSHING AND BEZEL



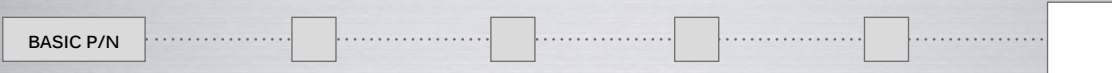
- 2 Black (standard)
- 7 White
- 0 Transparent (round bezel only)

ILLUMINATION



- L Central lens
- B Bezel (round only)

LED COLORS



- 0S Super red
- 0Y Yellow
- 0G Green
- 0B Blue
- 0W White
- SG Red/green
- YG Yellow/green