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.

$$\text{Resistor value} = \frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$$

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

The company reserves the right to change specifications without notice.

IR series

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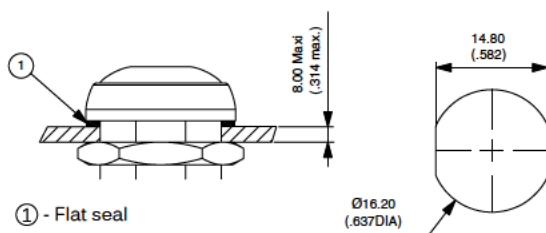bushing Ø 16 mm • latching

⚙ 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

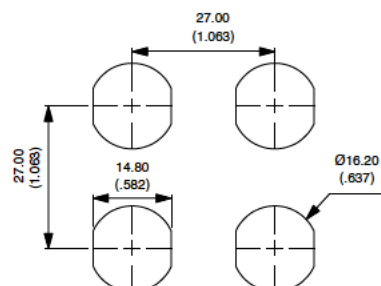• Soldering : 320 °C (608 °F) max. for 3 sec.

🎨 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

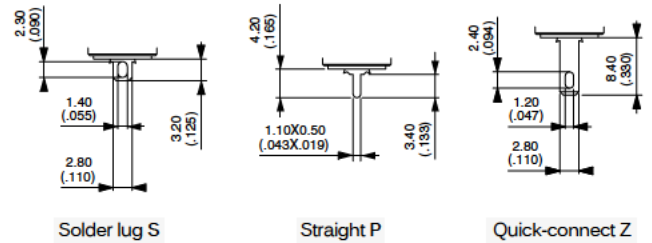• Lens : polycarbonate

• Terminal seal : epoxy

🪛 MOUNTING

PANEL CUT-OUT

① - Flat seal

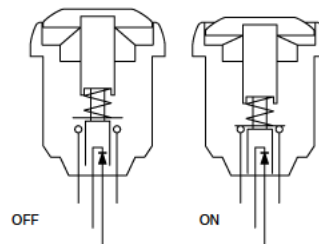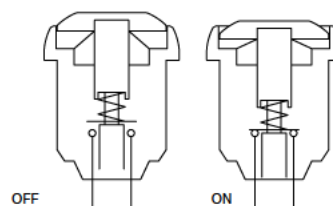## 🎧 TERMINALS

| Solder lug S | Straight P | Quick-connect Z |

⚡ ELECTRICAL FUNCTIONS

ILLUMINATED MODELS

OFF   ON

NON-ILLUMINATED MODELS

OFF   ON

MATRIX MOUNTING

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⚙ BUILD YOUR PART NUMBER

BASIC PART NUMBER

SERIES	ACTUATOR SHAPES	ELECTRICAL FUNCTION	TERMINALS
IR			

ACTUATOR SHAPES

C	Square
R	Round, curved
P	Round, flat
F	Round, flush (non-illuminated - not available in satin or bright chrome)

Actuator marking available on round flat models (symbol 12 mm max.). On request.

ELECTRICAL FUNCTION

1	OFF - ON

TERMINALS

S	Solder lugs
F	Flying leads
P	Straight PC
Z	Quick-connect

OPTIONS

CONTACTS

4	Silver, gold plated (100 mA 24 VDC)
7	Silver, gold plated (4 A 12 VDC)

ACTUATOR COLORS

1	Blue
B	Dark blue
2	Black
3	Green
4	Grey
5	Yellow
6	Red
7	Wh te
8	Bright chrome
9	Orange
A	Satin chrome

BUSHING & BEZEL

0	Transparent (round bezel only)
2	Black (std)
7	White

Other : on request.

ILLUMINATION

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

LED COLORS

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

⚡ 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

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ROUND - ILLUMINATED SOLDER LUG TERMINALS

Curved actuator	
IRR1S	OFF - ON

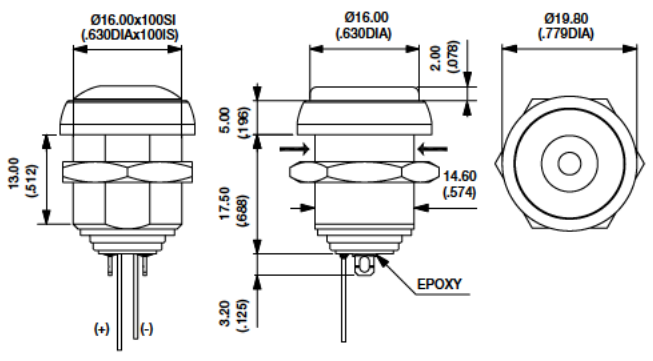| Flat actuator	
IRP1S	OFF - ON

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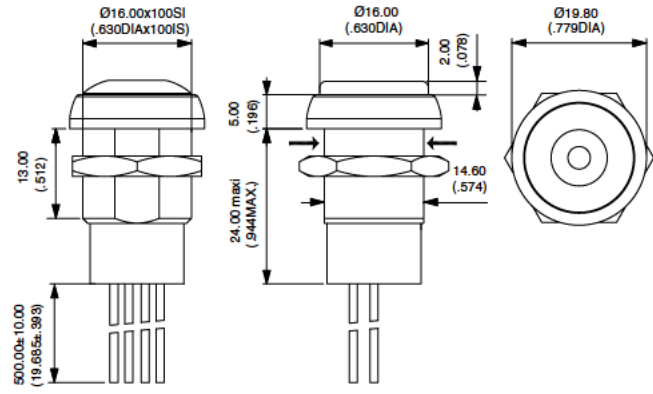

→ FLAT

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 (-)

→ FLAT

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.

→ FLAT

ROUND - NON-ILLUMINATED FLYING LEAD TERMINALS

Curved actuator	
IRR1F	OFF - ON

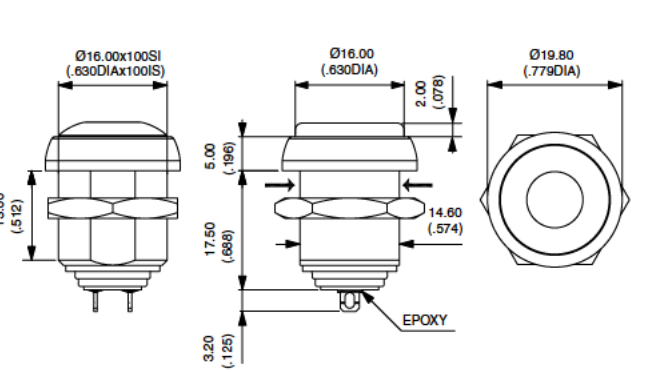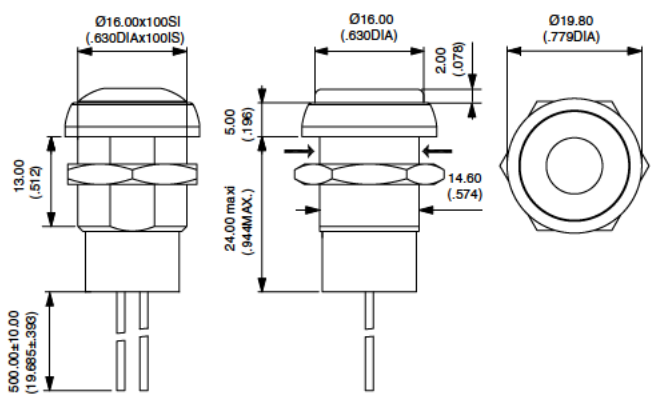| Flat actuator	
IRP1F	OFF - ON

→ FLAT

IR series

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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
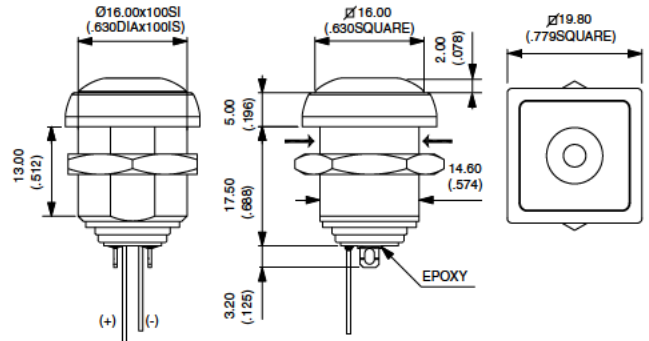

Curved actuator

| 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
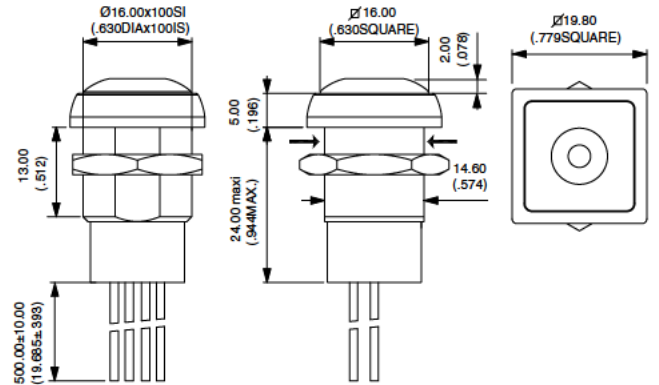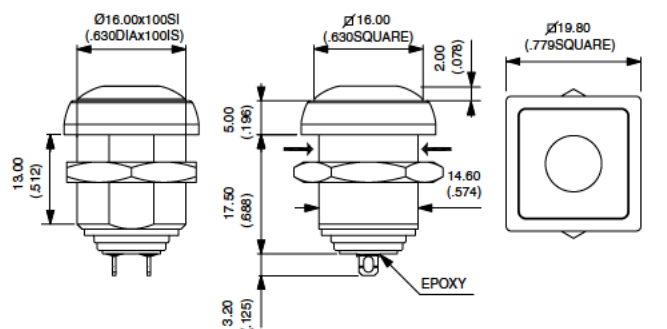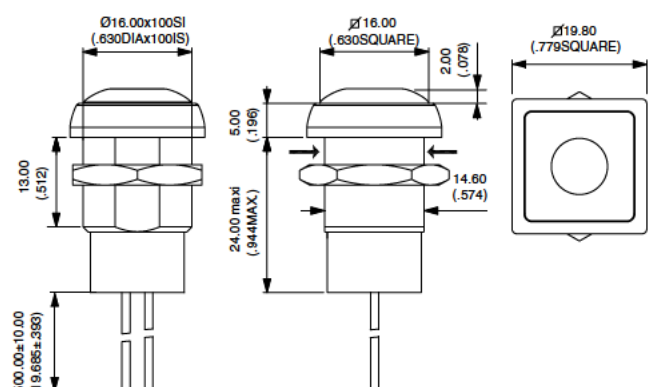

Curved actuator

| IRC1F | OFF - ON |

→ FLAT

→ FLAT

→ FLAT

→ FLAT

5

IR series

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ACTUATOR COLORS
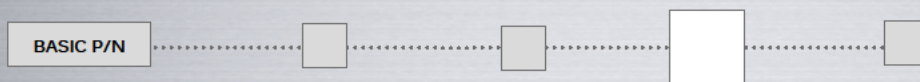
BASIC P/N					

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					

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

ILLUMINATION

BASIC P/N					

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

LED COLORS

BASIC P/N					

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