

IR series

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

Distinctive features and specifications



- Screw version up to 4A
- 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

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - Gold plated silver contacts (code 4) : 200mA 48VDC - 200mA 250VAC
 - Silver contacts (code 2) - screw terminals : 2A 250VAC - 4A 48VDC
- Electrical life at full load : 500.000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.500 Vrms

LED COMPONENT SPECIFICATIONS

LED colour	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20mA	2,1V	2,3V
Yellow (LOY)	20mA	2,1V	2,3V
Green (LOG)	20mA	2,1V	2,3V
Blue (LOB)	20mA	3,2V	3,8V
White (LOW)	20mA	3,35V	4,25V

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.

GENERAL SPECIFICATIONS

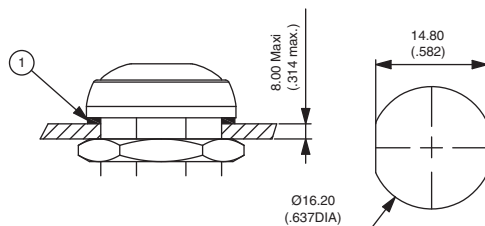
- Panel thickness : 8 mm (.314) max.
- Total travel : 1,6 mm (.062) +/- 0,3 mm
- Typical operating force : 4N +/- 2N
- Mechanical life : 1.000.000 cycles
- Torque : 0,8 Nm max. applied to nut
- Soldering : 320°C max. for 3 sec.

MATERIALS

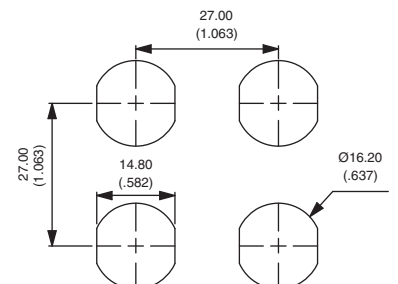
- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts :
 - 4 : silver, gold plated
 - 2 : silver (screw terminals)
- Multi-wire lead AWG20, section 0,6 mm²
- LED wire : AWG26, section 0,12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

PANEL CUT-OUT

① Flat seal



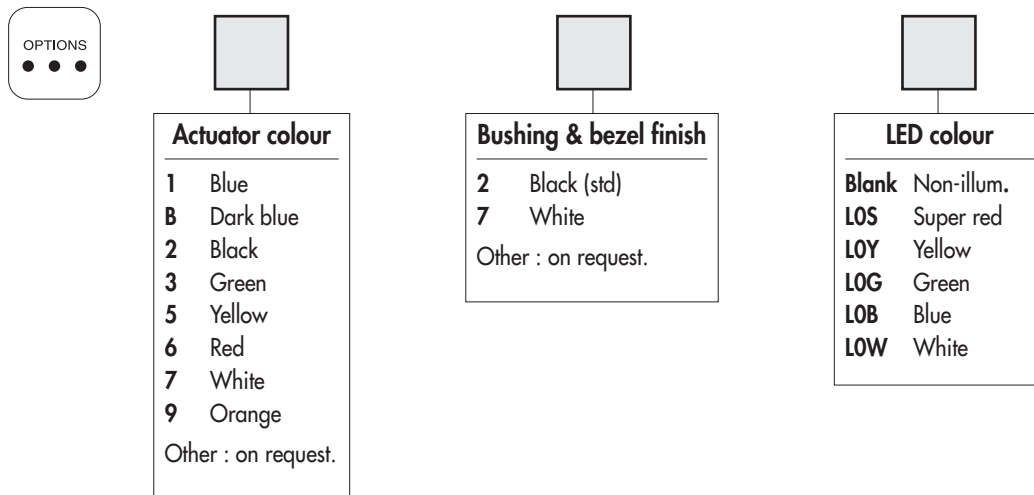
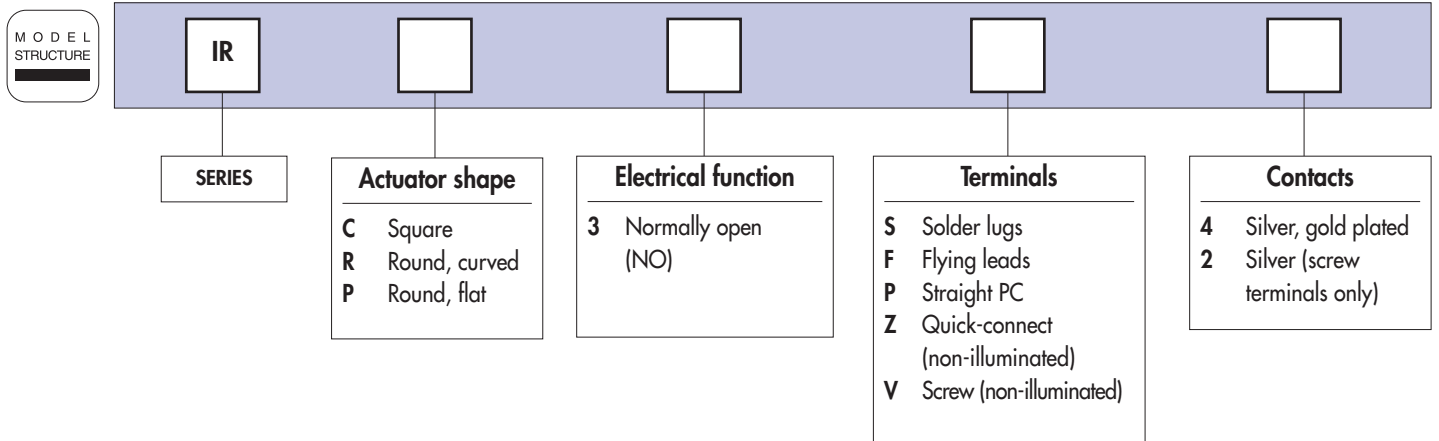
MATRIX MOUNTING



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Overview



ABOUT THIS SERIES

On the following pages, you will find successively :
 model structure 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.



Mounting accessories : Standard hardware supplied : 1 hex nut 19 mm (.748) across flats and 1 flat seal
 Hex nut P/N U4116.

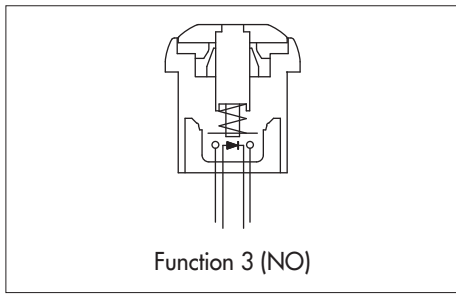


Packaging unit : 25 pieces for flying lead models - 40 pieces for other models

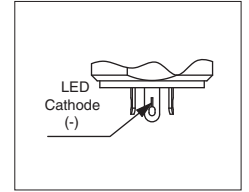
IR series

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

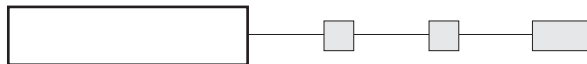
Round - illuminated



- Five LED colours
- Tin plated LED terminals
- Gold plated contacts



MODEL STRUCTURE



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

Solder lug terminals

→ Flat



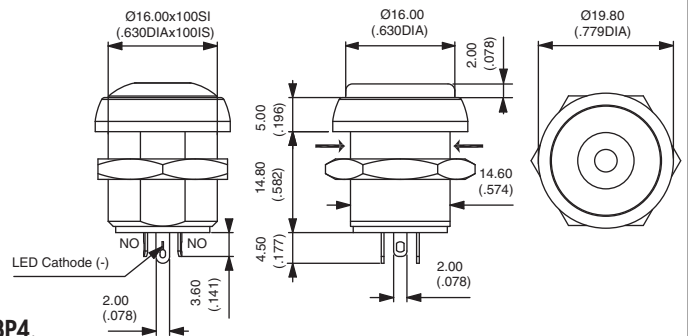
Curved actuator
IRR3S4

Normally Open

Flat actuator
IRP3S4

Normally Open

Also available with straight PC terminals : **IR•3P4**.
LED colour is indicated by the bottom of the switch.



Sealed flying lead terminals

→ Flat



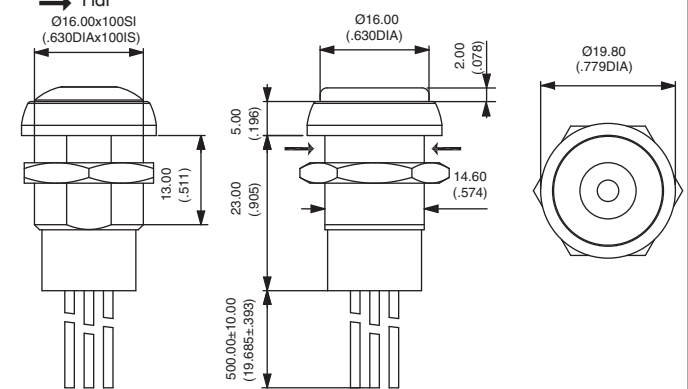
Curved actuator
IRR3F4

Normally Open

Flat actuator
IRP3F4

Normally Open

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

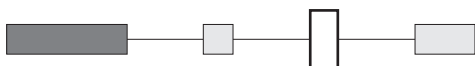


ACTUATOR COLOUR



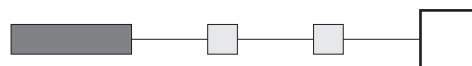
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 9 : orange

BUSHING AND BEZEL FINISH



2 : black (standard) - 7 : white

LED COLOUR

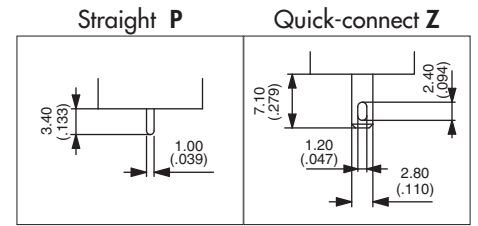
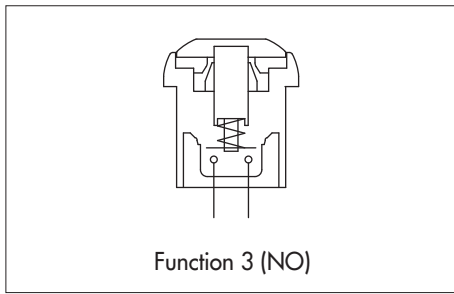


LOS : super red - LOY : yellow - LOG : green - LOB : blue
LOW : white

IR series

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Round - non-illuminated



MODEL
STRUCTURE



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

Solder lug terminals - gold plated contacts



Curved actuator
IRR3S4

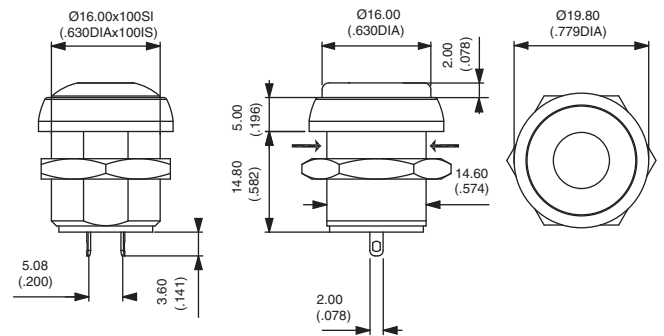


Flat actuator
IRP3S4



Also available with straight PC terminals :
IR•3P4 and quick-connect terminals : **IR•3Z4**.

→ Flat



Sealed flying lead terminals - gold plated contacts



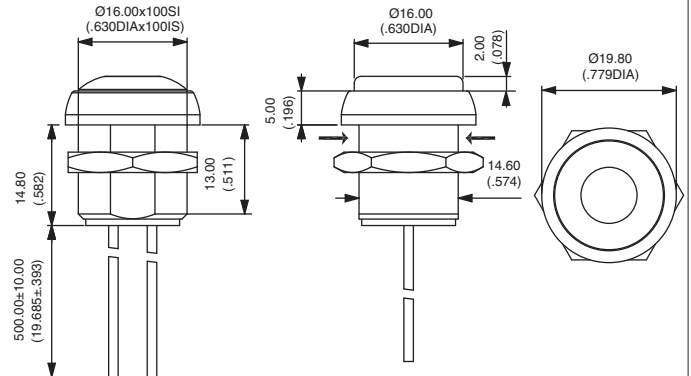
Curved actuator
IRR3F4



Flat actuator
IRP3F4



→ Flat



Screw terminals - silver contacts



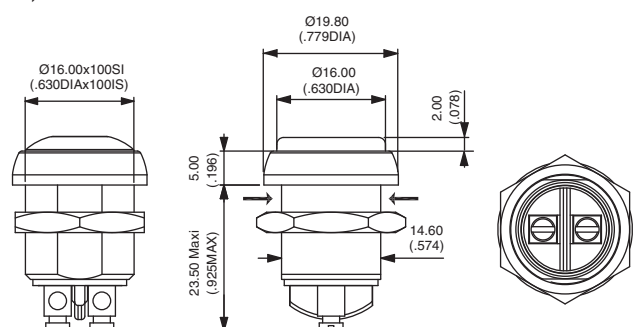
Curved actuator
IRR3V2



Flat actuator
IRP3V2



→ Flat

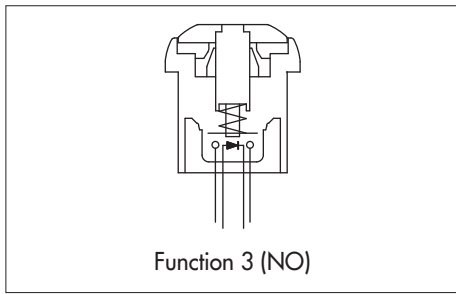


Actuator colour and bushing/bezel finish : select the desired codes on previous page.

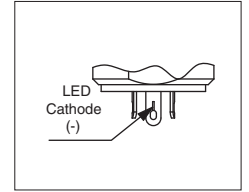
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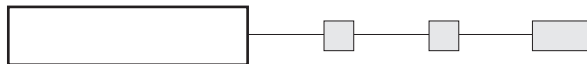
Square - illuminated



- Five LED colours
- Tin plated LED terminals
- Gold plated contacts



MODEL
STRUCTURE



Solder lug terminals



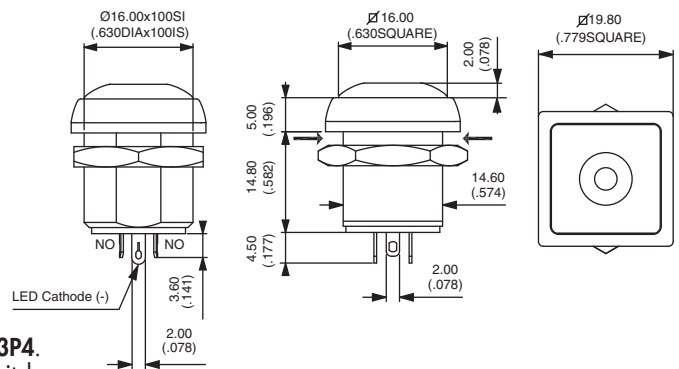
IRC3S4



Normally Open

Also available with straight PC terminals : **IRC3P4**.
LED colour is indicated by the bottom of the switch.

→ Flat



Sealed flying lead terminals



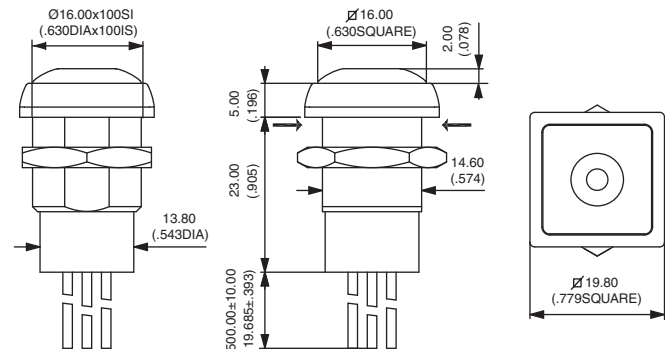
IRC3F4



Normally Open

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

→ Flat

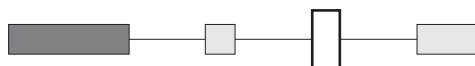


ACTUATOR COLOUR



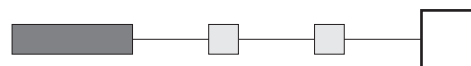
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 9 : orange

BUSHING AND BEZEL FINISH



2 : black (standard) - 7 : white

LED COLOUR

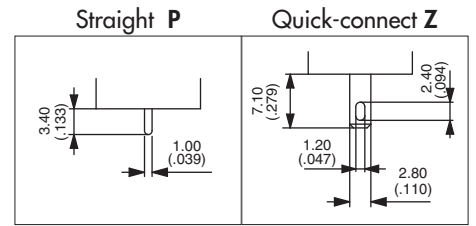
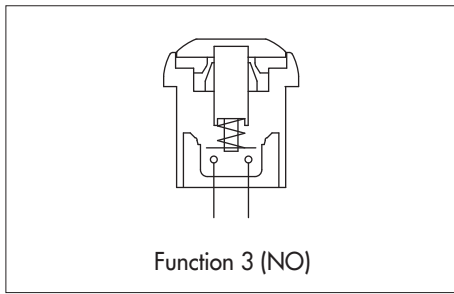


LOS : super red - LOY : yellow - LOG : green - LOB : blue
LOW : white

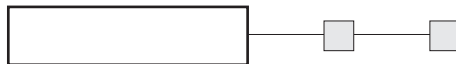
IR series

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Square - non-illuminated



MODEL
STRUCTURE



Solder lug terminals - gold plated contacts

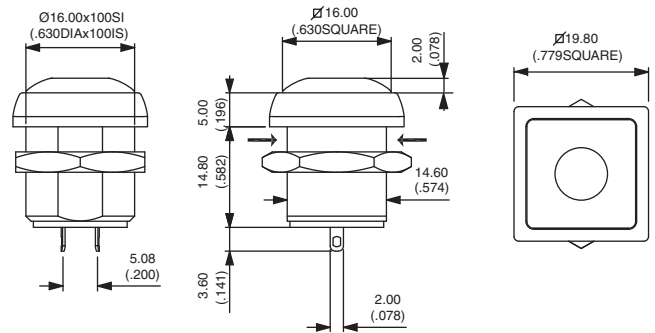


IRC3S4



Normally Open

→ Flat



Also available with straight PC terminals :
IRC3P4 or quick-connect terminals : IRC3Z4.

Sealed flying lead terminals - gold plated contacts

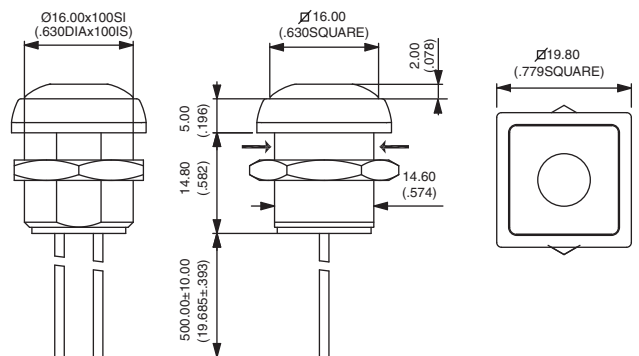


IRC3F4



Normally Open

→ Flat



Screw terminals - silver contacts

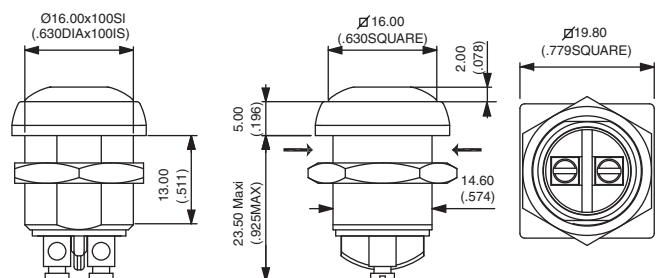


IRC3V2



Normally Open

→ Flat



Actuator colour and bushing/bezel finish : select the desired codes on previous page.