

# New!

# IR series

## Sealed pushbutton switches - bushing Ø 16 mm - latching

*Distinctive features and specifications*

UG1006-A



- 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

### GENERAL SPECIFICATIONS

- Panel thickness : 8 mm (.314) max.
- Total travel : 2,5 mm (.098) +/- 0,3 mm
- Typical operating force : 5N +/- 2N
- Mechanical life : 200.000 cycles
- Torque : 0,8 Nm max. applied to nut
- Soldering : 320°C max. for 3 sec.

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 100mA 24VDC - 200.000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.500 Vrms between terminals

### MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts : silver, gold plated
- Multi-wire lead AWG20, section 0,6 mm<sup>2</sup>
- LED wire : AWG26, section 0,12 mm<sup>2</sup>
- Lens : polycarbonate
- Terminal seal : epoxy

### LED COMPONENT SPECIFICATIONS

LED colour	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20mA	1,95V	1,95V
Yellow (LOY)	20mA	2V	2,05V
Green (LOG)	20mA	3,2V	3,70V
Blue (LOB)	20mA	3,2V	4V

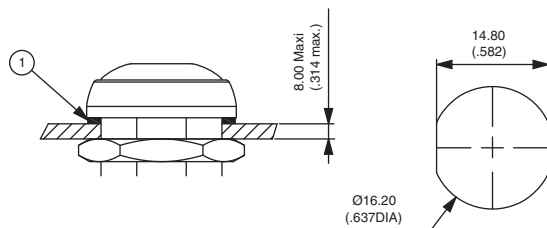
A resistor must be series-connected by the user.

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

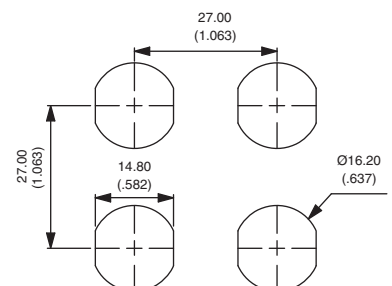
On flying lead versions, the LED resistor can be integrated by APEM on request.

### PANEL CUT-OUT

① Flat seal



### MATRIX MOUNTING

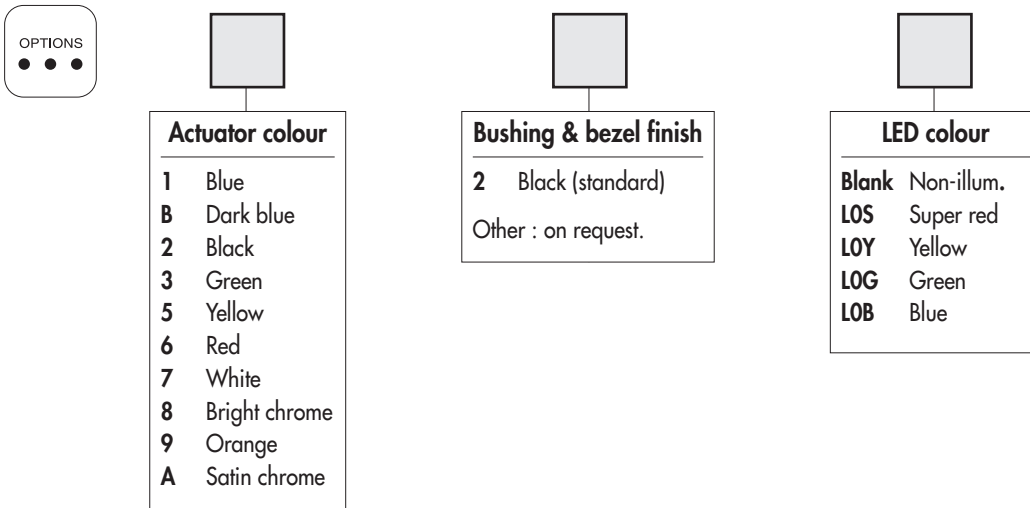
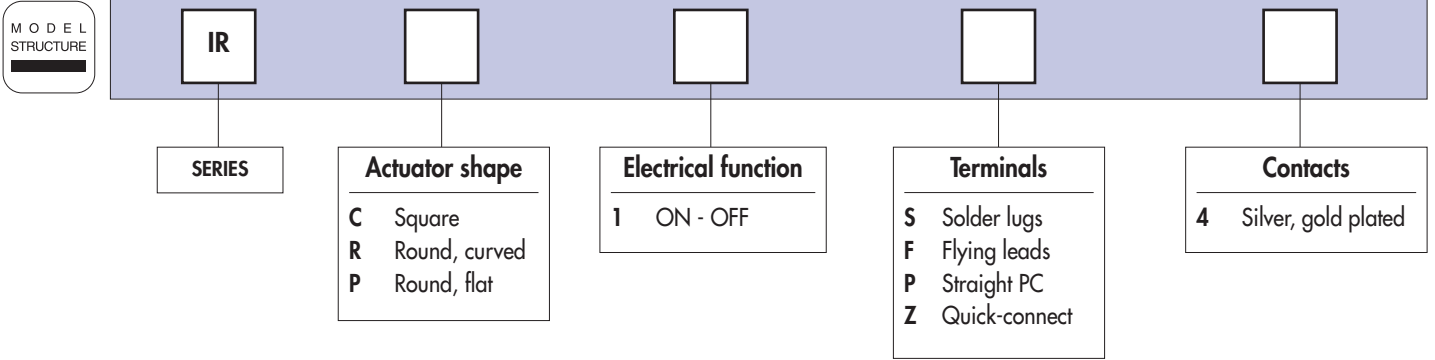


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Overview



## 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

**Dimensions** : first dimensions are in mm while inches are shown as bracketted numbers.



**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.



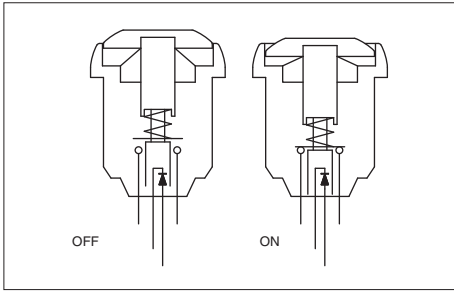
**Packaging unit** : 25 pieces for flying lead models - 40 pieces for other models

**New!**

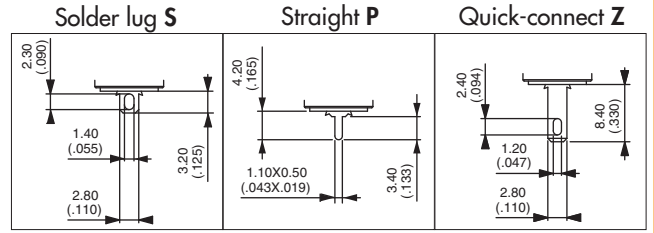
# IR series

Sealed pushbutton switches - bushing Ø 16 mm - latching

Round - illuminated



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



**MODEL STRUCTURE**



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

**Solder lug terminals**



Curved actuator  
**IRR1S4**

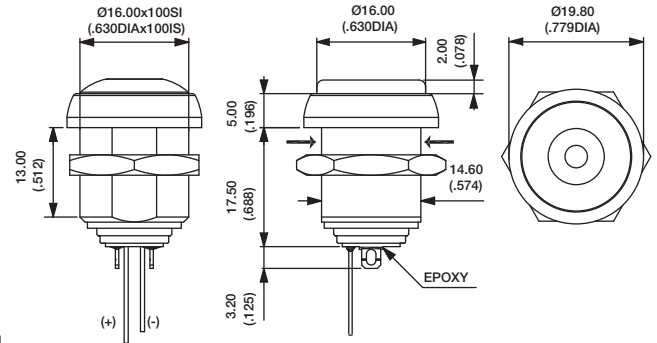
OFF - ON

Flat actuator  
**IRP1S4**

OFF - ON

Also available with straight PC terminals : **IR•1P4**  
& quick-connect terminals : **IR•1Z4**.

→ Flat



**Sealed flying lead terminals**



Curved actuator  
**IRR1F4**

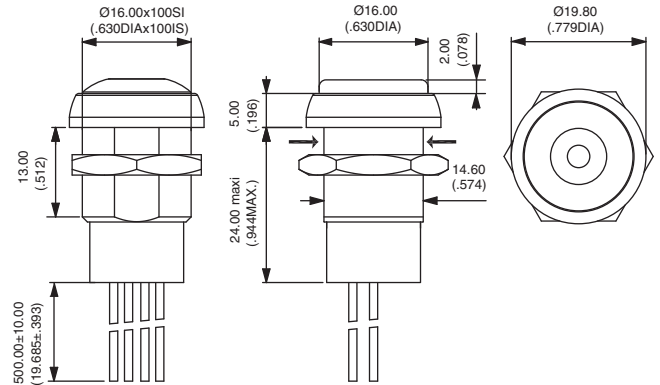
OFF - ON

Flat actuator  
**IRP1F4**

OFF - ON

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

→ Flat

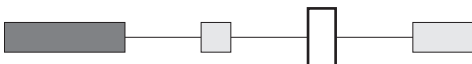


**ACTUATOR COLOUR**



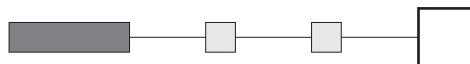
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 8 : bright chrome - 9 : orange  
A : satin chrome

**BUSHING AND BEZEL FINISH**



2 : black (standard)

**LED COLOUR**



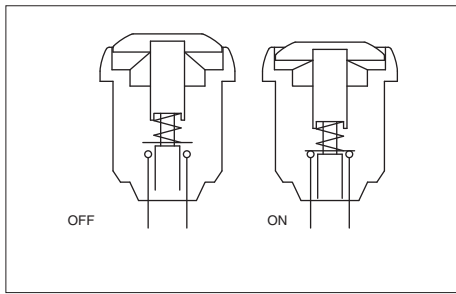
LOS : super red - LOY : yellow - LOG : green - LOB : blue

# IR series

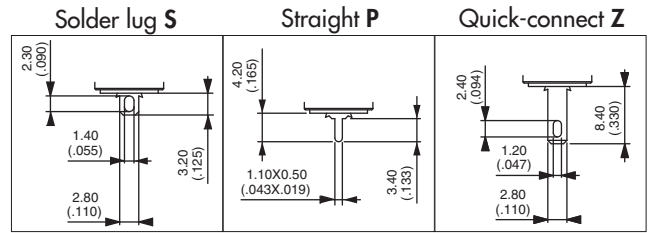
**New!**

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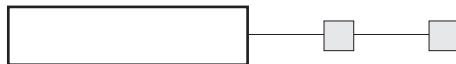
Round - non-illuminated



- Gold plated contacts



### MODEL STRUCTURE



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

### Solder lug terminals



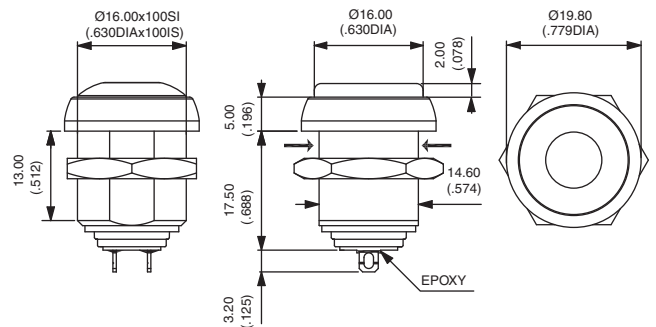
Curved actuator  
**IRR1S4**

OFF - ON

Flat actuator  
**IRP1S4**

OFF - ON

→ Flat



Also available with straight PC terminals : **IR•1P4**  
& quick-connect terminals : **IR•1Z4**.

### Sealed flying lead terminals



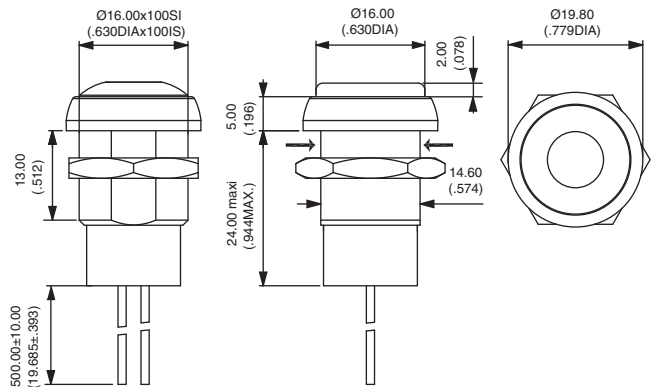
Curved actuator  
**IRR1F4**

OFF - ON

Flat actuator  
**IRP1F4**

OFF - ON

→ Flat



### ACTUATOR COLOUR



1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 8 : bright chrome - 9 : orange  
A : satin chrome

### BUSHING AND BEZEL FINISH



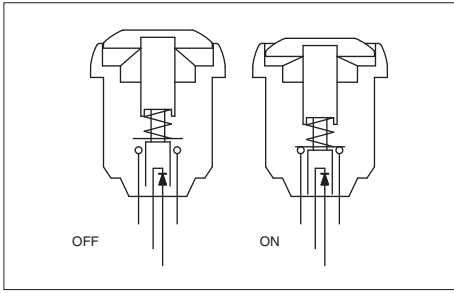
2 : black (standard)

**New!**

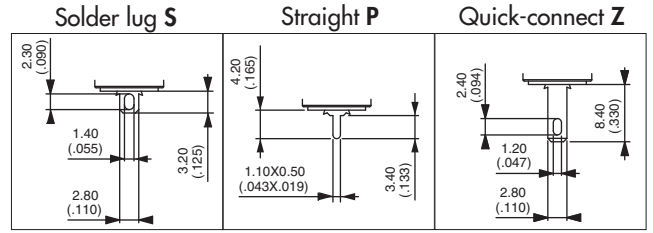
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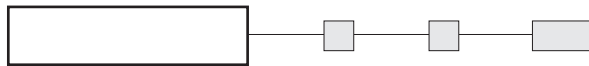
Square - illuminated



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



MODEL STRUCTURE



B

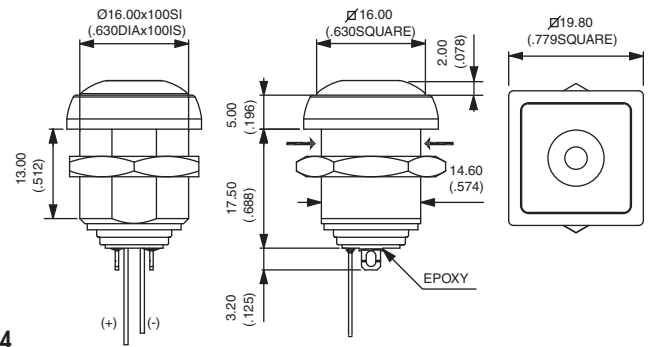
## Solder lug terminals



Curved actuator  
**IRC154**

OFF - ON

→ Flat



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

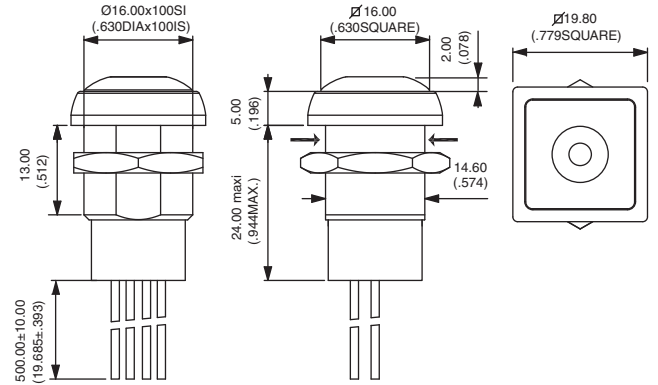
## Sealed flying lead terminals



Curved actuator  
**IRC1F4**

OFF - ON

→ Flat



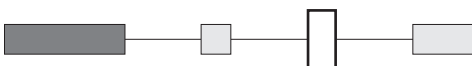
Wire colours : black : contact,  
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## ACTUATOR COLOUR



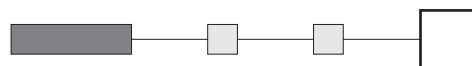
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## BUSHING AND BEZEL FINISH



2 : black (standard)

## LED COLOUR



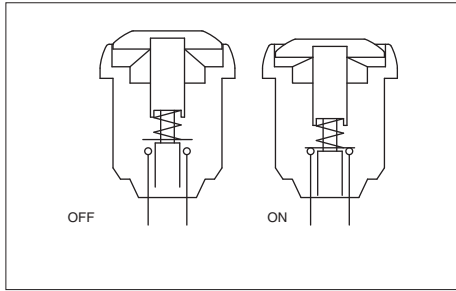
LOS : super red - LOY : yellow - LOG : green - LOB : blue

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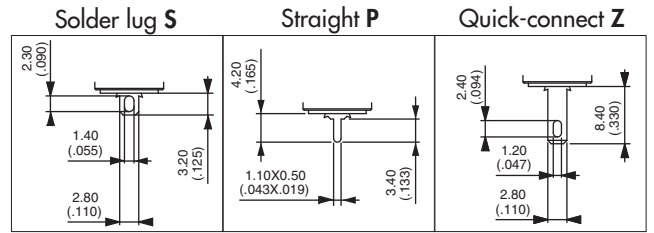
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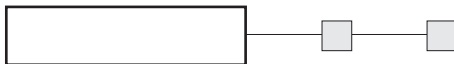
Square - non-illuminated



- Gold plated contacts



MODEL STRUCTURE



B

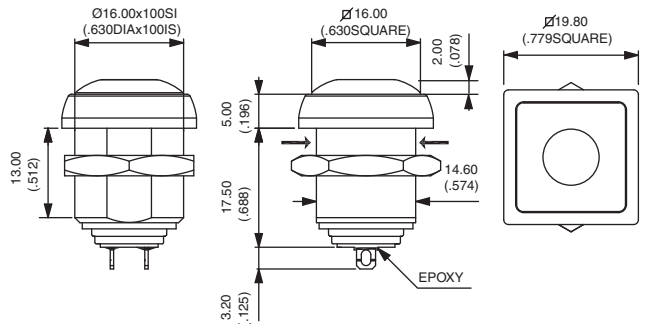
## Solder lug terminals



Curved actuator  
**IRC154**

OFF - ON

→ Flat



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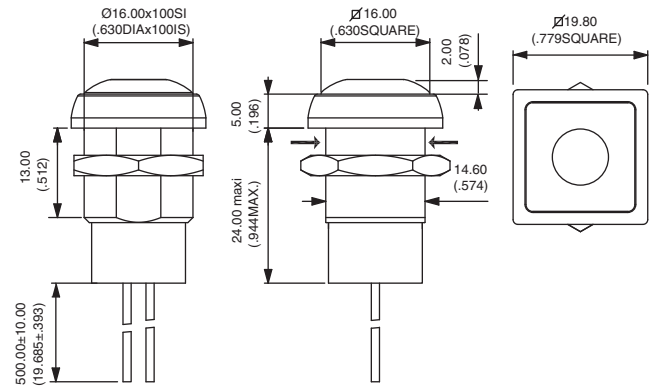
## Sealed flying lead terminals



Curved actuator  
**IRC1F4**

OFF - ON

→ Flat



## ACTUATOR COLOUR



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A : satin chrome

## BUSHING AND BEZEL FINISH



2 : black (standard)