

IL series

Sealed pushbutton switches for thick panels - long bushing Ø 12 mm - momentary

Distinctive features and specifications

UG1410-A-R1



- Momentary pushbuttons for thick panels
- Illuminated or non-illuminated
- Tactile feedback
- Flat round actuator for optional marking
- Sealed to IP67 (standard models only)

ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing according to IEC 60529 : IP67 (standard models) IP54 (options X1242 and 234)
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500 Hz - 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 : 2A 24VDC, 200.000 cycles
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.000 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.

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

GENERAL SPECIFICATIONS

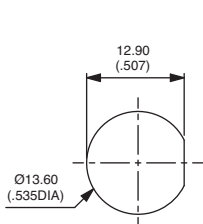
- Panel thickness : 1,50 mm (.059) min. 10 mm (.393) max.
- Total travel : 1,7 mm (.067) +/- 0,3 mm
- Typical operating force : 4N +/- 2N
- Low level or mechanical life : 1.000.000 cycles
- Torque (applied to nut) : 1 Nm max. with metal nut U166 1,5 Nm max. with plastic nut U4248
- Soldering : 300°C max. for 3 seconds

MATERIALS

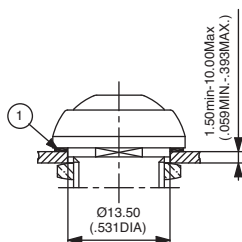
- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : silver, gold plated
- Terminal seal : epoxy

MOUNTING - STANDARD BEZEL

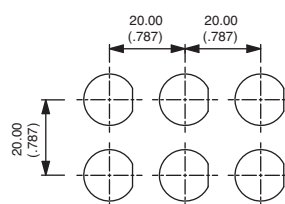
Panel cut-out



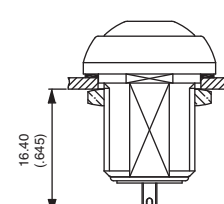
① Flat seal



Matrix mounting



Back of panel space requirement



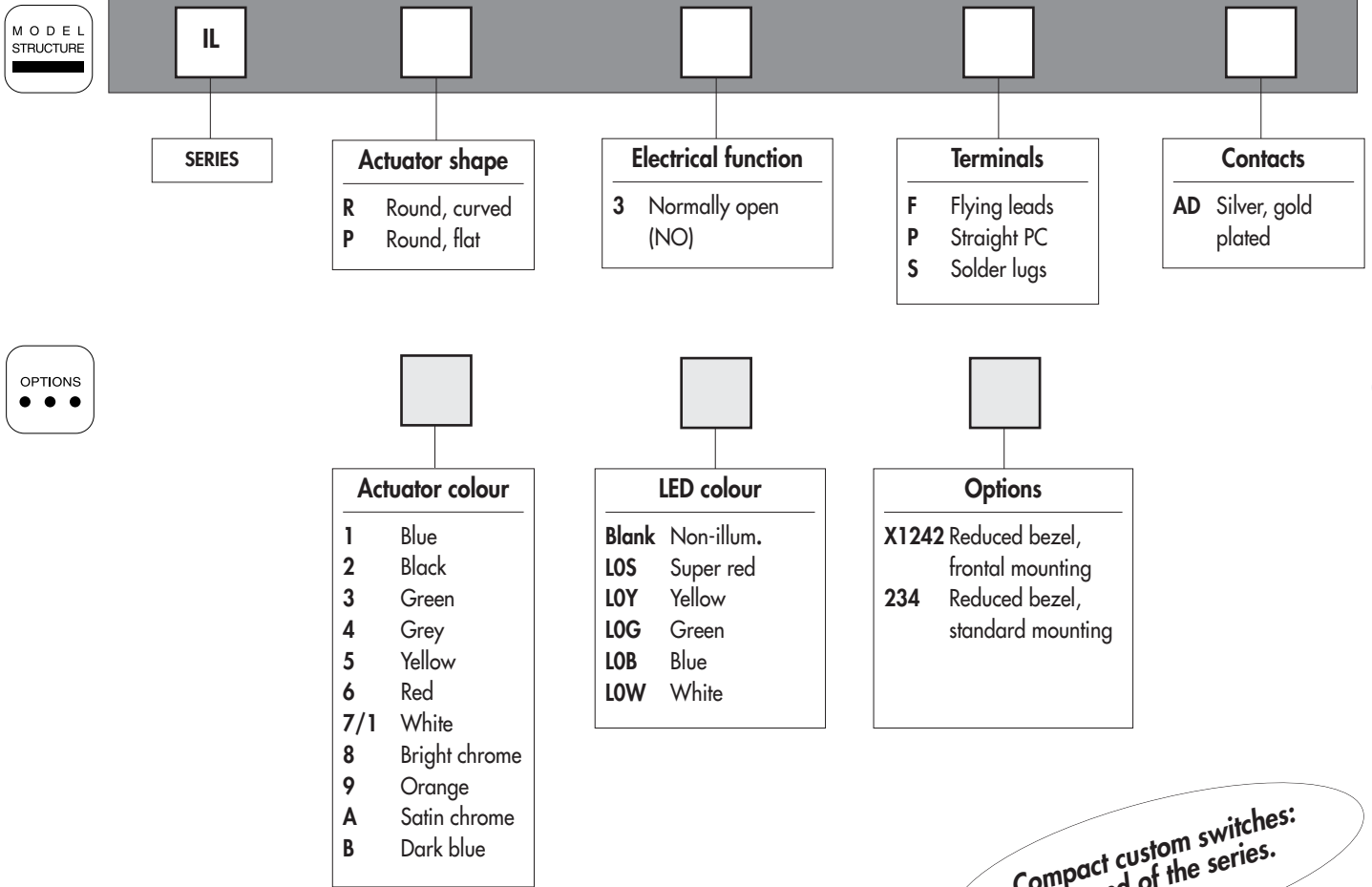
Mounting for reduced bezel : see options X1242 and 234 at the end of the series.

The company reserves the right to change specifications without notice.

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Overview



Compact custom switches:
see end of the series.

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 bracketed numbers.



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 U5125). It is presented after the IA series and in section H.



Mounting accessories : Standard hardware supplied : 1 flat seal (standard bezel) or 1 O-ring (reduced bezel) and 1 metal hex nut 14 mm (.551) across flats. Hex nut part number U166.
 Plastic nut 17 mm (.669) across flats, thickness 4 mm (.157) available on request. Part number U4248.

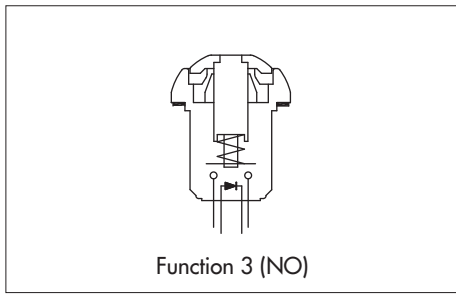


Packaging unit : 25 pieces

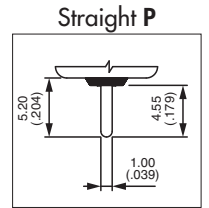
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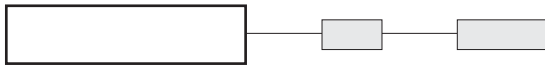
Illuminated



- Curved or flat actuator
- Antirotation bushing



MODEL STRUCTURE

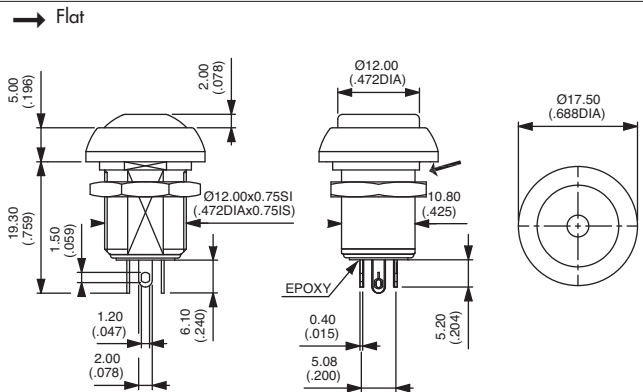


Actuator marking available on ILP models (symbol 10 mm max.). On request.

Solder lug terminals



- Curved actuator
ILR3SAD Normally open
- Flat actuator
ILP3SAD Normally open

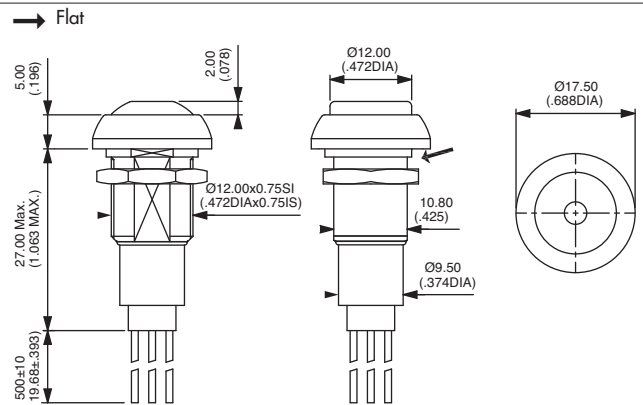


Also available with straight PC terminals : **IL•3PAD**

Flying lead terminals



- Curved actuator
ILR3FAD Normally open
- Flat actuator
ILP3FAD Normally open

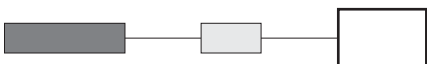


ACTUATOR COLOUR



1 : blue - 2 : black - 3 : green - 4 : grey - 5 : yellow - 6 : red - 7/1 : white - 8 : bright chrome - 9 : orange
A : satin chrome - B : dark blue

LED COLOUR

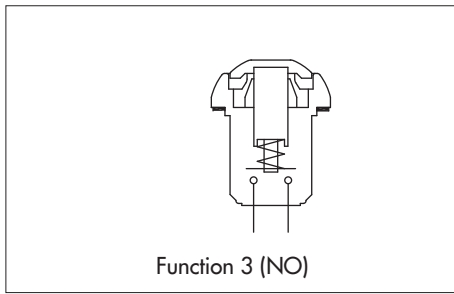


LOS : red - LOY : yellow - LOG : green - LOB : blue - LOW : white

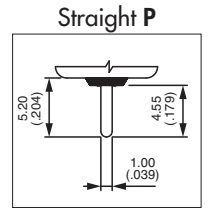
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Non-illuminated



- Curved or flat actuator
- Antirotation bushing



MODEL STRUCTURE

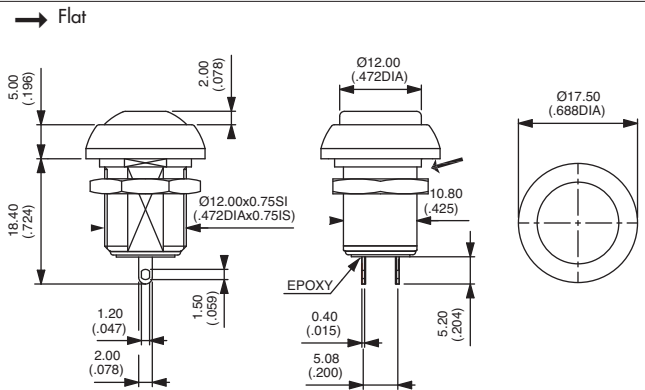


Actuator marking available on ILP models (symbol 10 mm max.). On request.

Solder lug terminals



- Curved actuator
ILR3SAD Normally open
- Flat actuator
ILP3SAD Normally open

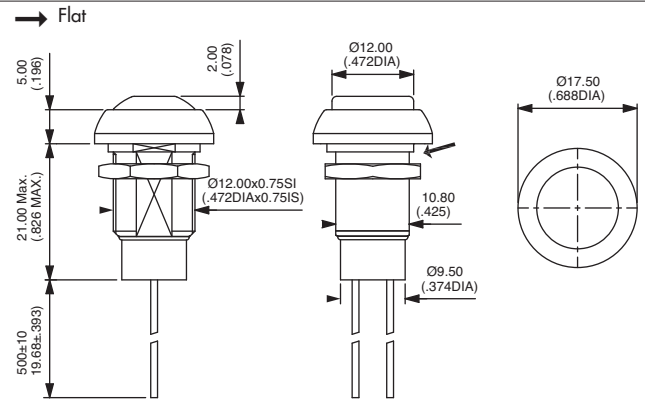


Also available with straight PC terminals : **IL•3PAD**

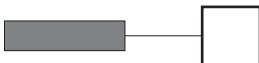
Flying lead terminals



- Curved actuator
ILR3FAD Normally open
- Flat actuator
ILP3FAD Normally open



ACTUATOR COLOUR



1 : blue - 2 : black - 3 : green - 4 : grey - 5 : yellow - 6 : red - 7/1 : white - 8 : bright chrome - 9 : orange
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Custom switches

Reduced bezel for compact matrix mounting - option X1242



ILP3FAD...X1242

- Dia. 15 (.590) reduced bezel
- **Mounting from the front into a threaded panel cut-out**
- Matrix mounting : 16 x 16 mm (.630x.630)
- Illuminated or non-illuminated
- Same terminal options and colours as standard models
- Part numbers on request.

Reduced bezel for compact matrix mounting - option 234

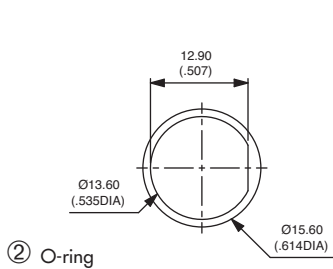


ILP3SAD...234

- Dia. 15 (.590) reduced bezel
- **Standard panel mounting**
- Matrix mounting : 17,5 x 17,5 mm (.689x.689)
- Illuminated or non-illuminated
- Same terminal options and colours as standard models
- Part numbers on request.

MOUNTING - REDUCED MODEL

Panel cut-out



Matrix mounting

