IL series

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

Distinctive features and specifications

□ 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 : $50 \text{ m}\Omega$ max.

• Insulation resistance : 1 $G\Omega$ 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 (L0G)	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 = supply voltage - LED forward voltage

LED forward current

GENERAL SPECIFICATIONS

UG1410A

- 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 : 1 Nm max. applied to nut
- 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

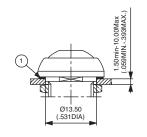
Terminal seal : epoxy

MOUNTING - STANDARD BEZEL

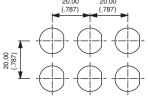
Panel cut-out

013.60 (.535DIA)

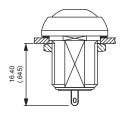
1 Flat seal



Matrix mounting



Back of panel space requirement



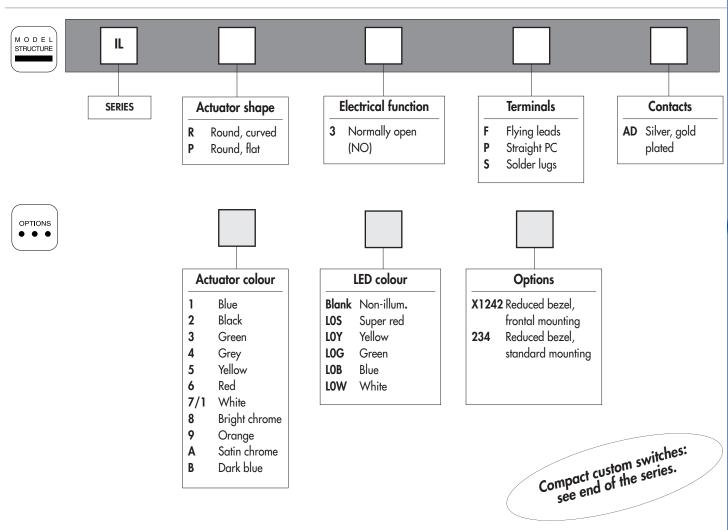
Mounting for reduced bezel: see options X1242 and 234 at the end of the series.

The company reserves the right to change specifications without notice.



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Overview



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 hex nut 14 mm (.551) across flats. Hex nut part number U166.

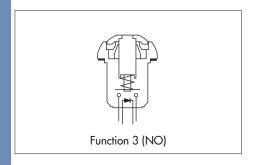


Packaging unit: 25 pieces

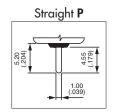
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Illuminated

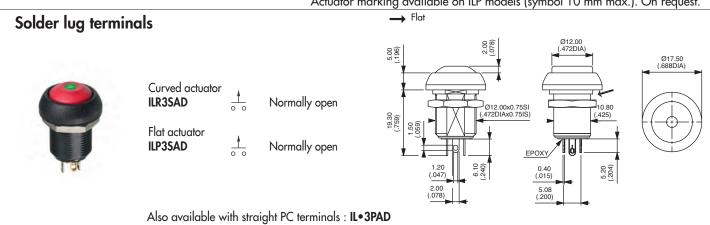


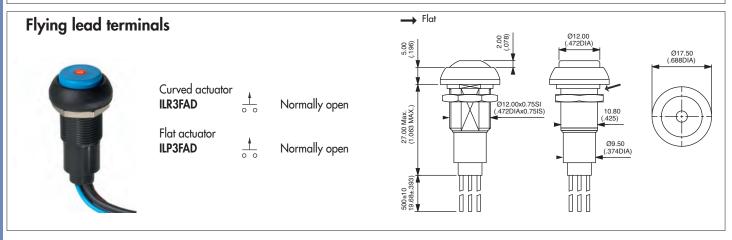
- Curved or flat actuator
- Antirotation bushing



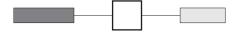
MODEL STRUCTURE

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



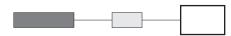


ACTUATOR COLOUR



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



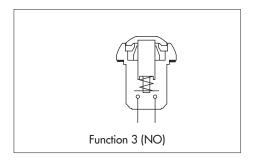
LOS: red - LOY: yellow - LOG: green - LOB: blue - LOW: white

В1

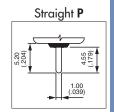


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Non-illuminated

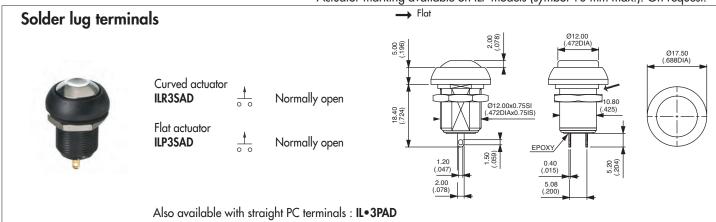


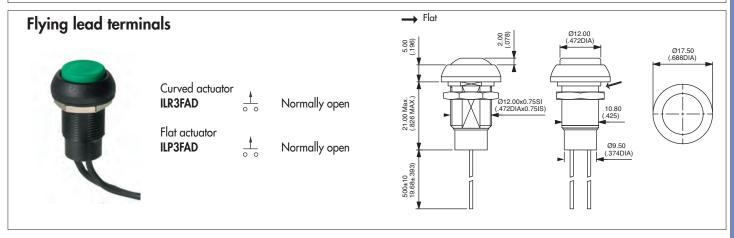
- Curved or flat actuator
- Antirotation bushing



MODEL STRUCTURE

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





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

APEM www.apem.com B1-9

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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.

Panel cut-out Matrix mounting 12.90 (.5507) O15.60 (.614DIA) O2 O-ring MOUNTING - REDUCED MODEL Matrix mounting 17.50 (.689) 17.50 (.689) 013.60 (.689) 013.60 (.531DIA)