

IL series

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

Distinctive features and specifications

UG1410A



- 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.

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

GENERAL SPECIFICATIONS

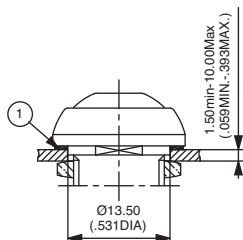
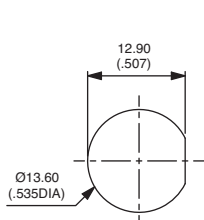
- Panel thickness : 1,50 mm (.059) min. 10 mm (.393) max.
- Total travel : 1,7 mm (.067) +/- 0,3 mm
- Typical operating force : 4N +/- 2N
- Low level or mechanical life : 1.000.000 cycles
- Torque : 1 Nm max. applied to nut
- Soldering : 300°C max. for 3 seconds

MATERIALS

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

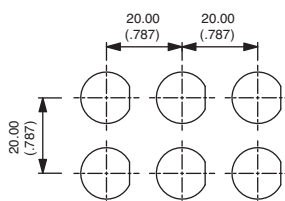
MOUNTING - STANDARD BEZEL

Panel cut-out

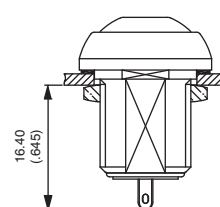


① Flat seal

Matrix mounting



Back of panel space requirement



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

APEM代理防水按钮开关价格查询热线 4006-022-002

上海 北京 深圳 天津 cnr@tooye.net

The company reserves the right to change specifications without notice.

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Overview

MODEL
STRUCTURE

IL

SERIES

Actuator shape

R Round, curved
P Round, flat

Electrical function

3 Normally open (NO)

Terminals

F Flying leads
P Straight PC
S Solder lugs

Contacts

AD Silver, gold plated

OPTIONS

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

Blank Non-illum.
LOS Super red
LOY Yellow
LOG Green
LOB Blue
LOW White

Options

X1242 Reduced bezel, frontal mounting
234 Reduced bezel, standard mounting

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 hex nut 1.4 mm (.551) across flats. Hex nut part number U166.

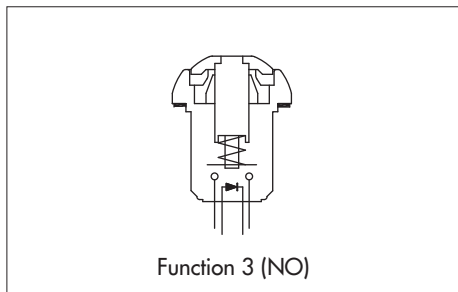


Packaging unit : 25 pieces

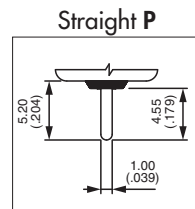
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Illuminated



- Curved or flat actuator
- Antirotation bushing



MODEL STRUCTURE

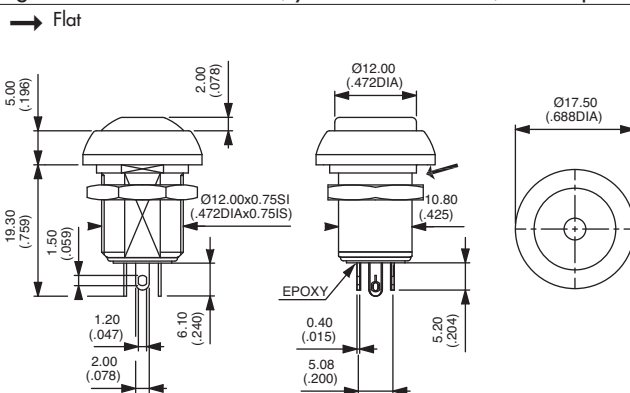


Actuator marking available on ILP models (symbol 10 mm max.). On request.

Solder lug terminals



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

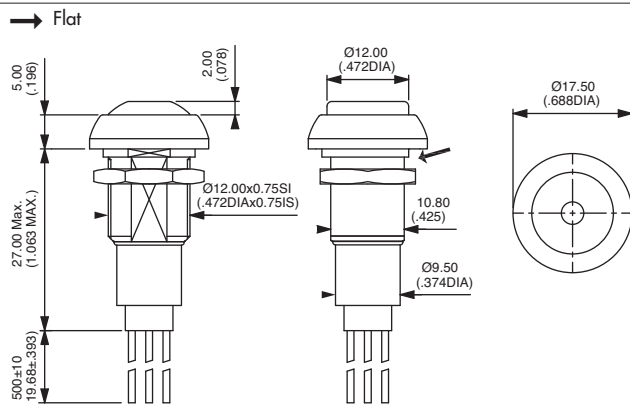


Also available with straight PC terminals : **IL•3PAD**

Flying lead terminals



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

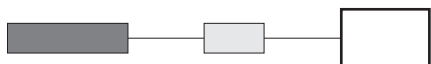


ACTUATOR COLOUR



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

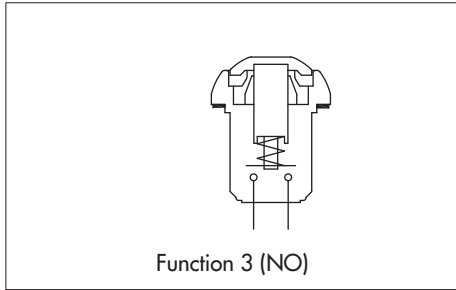


LOS : red - LOY : yellow - LOG : green - LOB : blue - LOW : white

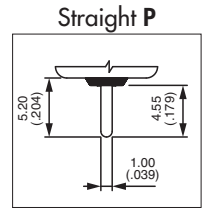
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Non-illuminated



- Curved or flat actuator
- Antirotation bushing





MODEL STRUCTURE

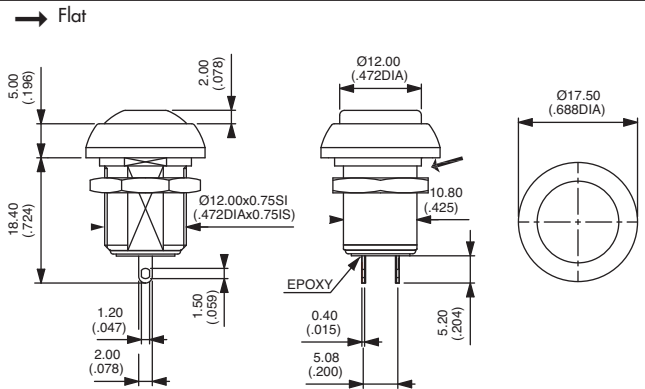


Actuator marking available on ILP models (symbol 10 mm max.). On request.

Solder lug terminals





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

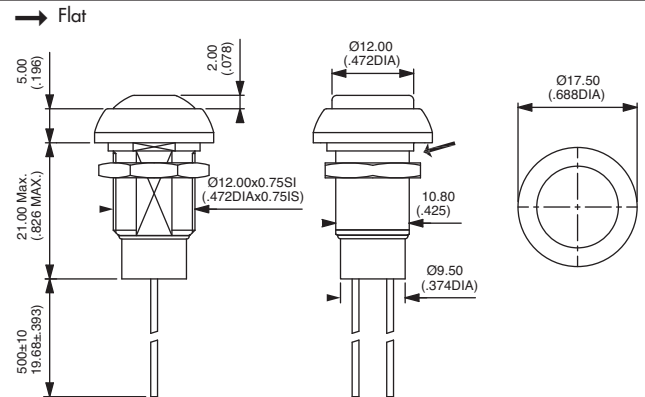


Also available with straight PC terminals : **IL•3PAD**

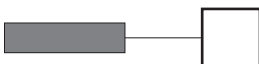
Flying lead terminals



- 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
A : satin chrome - B : dark blue

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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

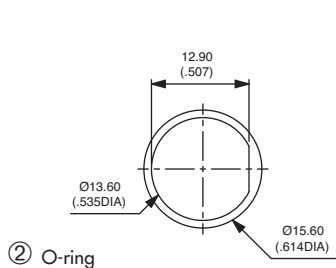


ILP3SAD...234

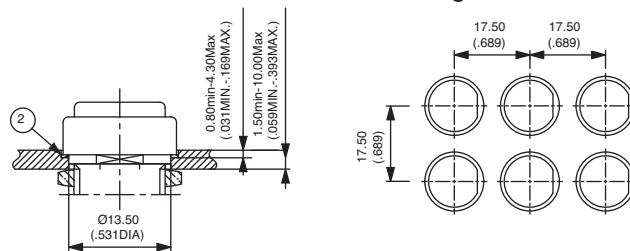
- Dia. 15 (.590) reduced bezel
- **Standard panel mounting**
- Matrix mounting : 17,5 x 17,5 mm (.689x.689)
- Illuminated or non-illuminated
- Same terminal options and colours as standard models
- Part numbers on request.

MOUNTING - REDUCED MODEL

Panel cut-out



Matrix mounting



金属按钮开关图片 Apem 开关图片 16mm 开孔背面安装按钮开关图片 IP67 密封按钮开关

Apem 按钮开关型号 自锁按钮开关 自动复位按钮开关 进口按钮开关图片

apem 代理商 M16 按钮开关 防水按钮开关 www.tooye.net cnr@tooye.net

进口按钮开关说明书 pdf 按钮开关样本 防水按钮开关选型资料

北京 apem 代理商深圳 apem 代理商天津 apem 代理商 APEM 上海

IP67 Waterproof pushbutton switch model: 金属按钮开关型号: 防水按钮开关型号:

ILR3FAD; ILP3FAD; ILR3SAD; ILP3SAD; ILR3PAD; ILP3PAD;

ILR3FAD1; ILP3FAD1; ILR3SAD1; ILP3SAD1; ILR3PAD1; ILP3PAD1;
ILR3FAD2; ILP3FAD2; ILR3SAD2; ILP3SAD2; ILR3PAD2; ILP3PAD2;
ILR3FAD3; ILP3FAD3; ILR3SAD3; ILP3SAD3; ILR3PAD3; ILP3PAD3;
ILR3FAD4; ILP3FAD4; ILR3SAD4; ILP3SAD4; ILR3PAD4; ILP3PAD4;
ILR3FAD5; ILP3FAD5; ILR3SAD5; ILP3SAD5; ILR3PAD5; ILP3PAD5;
ILR3FAD6; ILP3FAD6; ILR3SAD6; ILP3SAD6; ILR3PAD6; ILP3PAD6;
ILR3FAD7/1; ILP3FAD7/1; ILR3SAD7/1; ILP3SAD7/1; ILR3PAD7/1; ILP3PAD7/1;
ILR3FAD8; ILP3FAD8; ILR3SAD8; ILP3SAD8; ILR3PAD8; ILP3PAD8;
ILR3FADB; ILP3FADB; ILR3SADB; ILP3SADB; ILR3PADB; ILP3PADB;

ILR3FAD1X1242; ILP3FAD1X1242; ILR3SAD1X1242; ILP3SAD1X1242;
ILR3PAD1X1242; ILP3PAD1X1242;
ILR3FAD2X1242; ILP3FAD2X1242; ILR3SAD2X1242; ILP3SAD2X1242;
ILR3PAD2X1242; ILP3PAD2X1242;
ILR3FAD3X1242; ILP3FAD3X1242; ILR3SAD3X1242; ILP3SAD3X1242;
ILR3PAD3X1242; ILP3PAD3X1242;
ILR3FAD4X1242; ILP3FAD4X1242; ILR3SAD4X1242; ILP3SAD4X1242;
ILR3PAD4X1242; ILP3PAD4X1242;
ILR3FAD5X1242; ILP3FAD5X1242; ILR3SAD5X1242; ILP3SAD5X1242;
ILR3PAD5X1242; ILP3PAD5X1242;
ILR3FAD6X1242; ILP3FAD6X1242; ILR3SAD6X1242; ILP3SAD6X1242;
ILR3PAD6X1242; ILP3PAD6X1242;
ILR3FAD7/1X1242; ILP3FAD7/1X1242; ILR3SAD7/1X1242; ILP3SAD7/1X1242;
ILR3PAD7/1X1242; ILP3PAD7/1X1242;
ILR3FAD8X1242; ILP3FAD8X1242; ILR3SAD8X1242;
ILP3SAD8X1242; ILR3PAD8X1242; ILP3PAD8X1242;
ILR3FADBx1242; ILP3FADBx1242; ILR3SADBx1242; ILP3SADBx1242;
ILR3PADBx1242; ILP3PADBx1242;

ILR3FAD1234; ILP3FAD1234; ILR3SAD1234; ILP3SAD1234; ILR3PAD1234; ILP3PAD1234;
ILR3FAD2234; ILP3FAD2234; ILR3SAD2234; ILP3SAD2234; ILR3PAD2234; ILP3PAD2234;
ILR3FAD3234; ILP3FAD3234; ILR3SAD3234; ILP3SAD3234; ILR3PAD3234; ILP3PAD3234;
ILR3FAD4234; ILP3FAD4234; ILR3SAD4234; ILP3SAD4234; ILR3PAD4234; ILP3PAD4234;
ILR3FAD5234; ILP3FAD5234; ILR3SAD5234; ILP3SAD5234; ILR3PAD5234; ILP3PAD5234;
ILR3FAD6234; ILP3FAD6234; ILR3SAD6234; ILP3SAD6234; ILR3PAD6234; ILP3PAD6234;
ILR3FAD7/1234; ILP3FAD7/1234; ILR3SAD7/1234; ILP3SAD7/1234; ILR3PAD7/1234;

ILP3PAD7/1234;
ILR3FAD8234; ILP3FAD8234; ILR3SAD8234; ILP3SAD8234; ILR3PAD8234; ILP3PAD8234;
ILR3FADB234; ILP3FADB234; ILR3SADB234; ILP3SADB234; ILR3PADB234; ILP3PADB234;

ILR3FAD1LOB; ILP3FAD1LOB; ILR3SAD1LOB; ILP3SAD1LOB; ILR3PAD1LOB; ILP3PAD1LOB;
ILR3FAD1LOBX1242; ILP3FAD1LOBX1242; ILR3SAD1LOBX1242; ILP3SAD1LOBX1242;
ILR3PAD1LOBX1242; ILP3PAD1LOBX1242;
ILR3FAD1LOB234; ILP3FAD1LOB234; ILR3SAD1LOB234; ILP3SAD1LOB234; ILR3PAD1LOB234;
ILP3PAD1LOB234;

ILR3FAD3LOG; ILP3FAD3LOG; ILR3SAD3LOG; ILP3SAD3LOG; ILR3PAD3LOG; ILP3PAD3LOG;
ILR3FAD3LOGX1242; ILP3FAD3LOGX1242; ILR3SAD3LOGX1242; ILP3SAD3LOGX1242;
ILR3PAD3LOGX1242; ILP3PAD3LOGX1242;
ILR3FAD3LOG234; ILP3FAD3LOG234; ILR3SAD3LOG234; ILP3SAD3LOG234; ILR3PAD3LOG234;
ILP3PAD3LOG234;

ILR3FAD5LOY; ILP3FAD5LOY; ILR3SAD5LOY; ILP3SAD5LOY; ILR3PAD5LOY; ILP3PAD5LOY;
ILR3FAD5LOYX1242; ILP3FAD5LOYX1242; ILR3SAD5LOYX1242; ILP3SAD5LOYX1242;
ILR3PAD5LOYX1242; ILP3PAD5LOYX1242;
ILR3FAD5LOY234; ILP3FAD5LOY234; ILR3SAD5LOY234; ILP3SAD5LOY234; ILR3PAD5LOY234;
ILP3PAD5LOY234;

ILR3FAD6LOS; ILP3FAD6LOS; ILR3SAD6LOS; ILP3SAD6LOS; ILR3PAD6LOS; ILP3PAD6LOS;
ILR3FAD6LOSX1242; ILP3FAD6LOSX1242; ILR3SAD6LOSX1242; ILP3SAD6LOSX1242;
ILR3PAD6LOSX1242; ILP3PAD6LOSX1242;
ILR3FAD6LOS234; ILP3FAD6LOS234; ILR3SAD6LOS234; ILP3SAD6LOS234; ILR3PAD6LOS234;
ILP3PAD6LOS234;

ILR3FAD7/1LOW; ILP3FAD7/1LOW; ILR3SAD7/1LOW; ILP3SAD7/1LOW; ILR3PAD7/1LOW;
ILP3PAD7/1LOW;
ILR3FAD7/1LOWX1242; ILP3FAD7/1LOWX1242; ILR3SAD7/1LOWX1242; ILP3SAD7/1LOWX1242;
ILR3PAD7/1LOWX1242; ILP3PAD7/1LOWX1242;
ILR3FAD7/1LOW234; ILP3FAD7/1LOW234; ILR3SAD7/1LOW234; ILP3SAD7/1LOW234;
ILR3PAD7/1LOW234; ILP3PAD7/1LOW234;

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