IL series

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

DISTINCTIVE FEATURES

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 (-40 °F to +185 °F)

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 2 A 24 VDC, 200,000 cycles
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,000 Vrms

LED COMPONENT SPECIFICATIONS			
LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (L0S)	20 mA	2.1 V	2.3 V
Yellow (L0Y)	20 mA	2.1 V	2.3 V
Green (L0G)	20 mA	2.1 V	2.3 V
Blue (L0B)	20 mA	3.2 V	3.8 V
White (L0W)	20 mA	3.35 V	4.25 V
Red/Green (LSG)	20 mA	Red: 1.95 V / Green: 2.1 V	2.5 V
Yellow/green (LYG)	20 mA	Yellow: 2 V / green: 2.1 V	2.5 V

A resistor must be series-connected by the user.

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

The company reserves the right to change specifications without notice.

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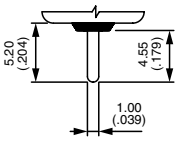
GENERAL SPECIFICATIONS

- Panel thickness : 1.50 mm (.059) min. 10 mm (.393) max.
- Total travel : 1.7 mm (.067) ± 0.3 mm
- Typical operating force : 4 N ± 2 N
- 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 (572 °F) max. for 3 seconds

TERMINALS



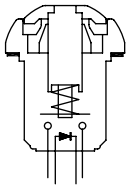
Straight **P**

MATERIALS

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

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

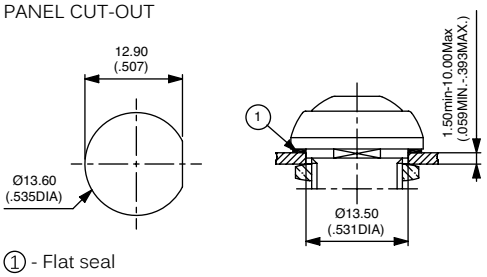
ELECTRICAL FUNCTION



Function **3 (NO)**

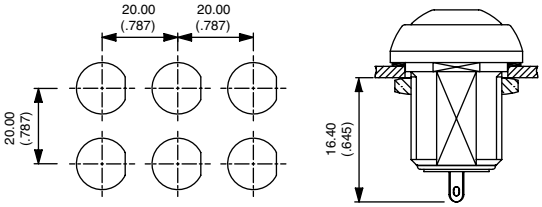
MOUNTING STANDARD BEZEL

PANEL CUT-OUT



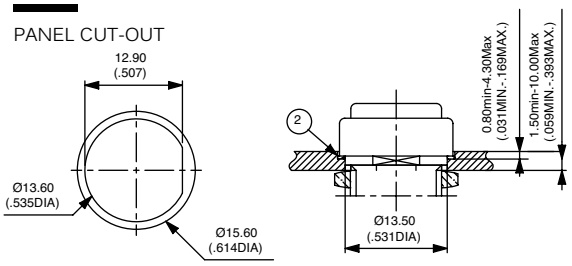
① - Flat seal

MATRIX MOUNTING - BACK OF PANEL SPACE REQUIREMENT



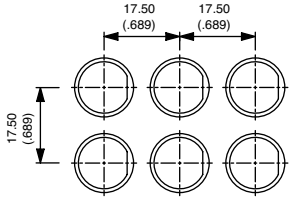
MOUNTING REDUCED MODEL

PANEL CUT-OUT



② - O-ring

MATRIX MOUNTING



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BUILD YOUR PART NUMBER

BASIC PART NUMBER

IL _ _ _ _ _

SERIES

ACTUATOR SHAPES

R	Round, curved
P	Round, flat

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

ELECTRICAL FUNCTION

3	Normally open (NO)

TERMINALS

F	Flying leads
P	Straight PC
S	Solder lugs

CONTACTS

AD	Silver, gold plated

OPTIONS

ACTUATOR COLORS

1	Blue
B	Dark blue
2	Black
3	Green
4	Grey
5	Yellow
6	Red
7/1	White
8	Bright chrome
9	Orange
A	Satin chrome

LED COLORS

Blank	Non-illuminated
L0S	Super red
L0Y	Yellow
L0G	Green
L0B	Blue
L0W	White
LSG	Red/green
LYG	Yellow/green

BEZEL OPTIONS

X1242	Reduced bezel, front mounting
234	Reduced bezel, standard mounting

ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers 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.

A sealing boot is available to protect the switches against frost and sand (P/N U5125). See "Sealing Boots" section of website.

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.

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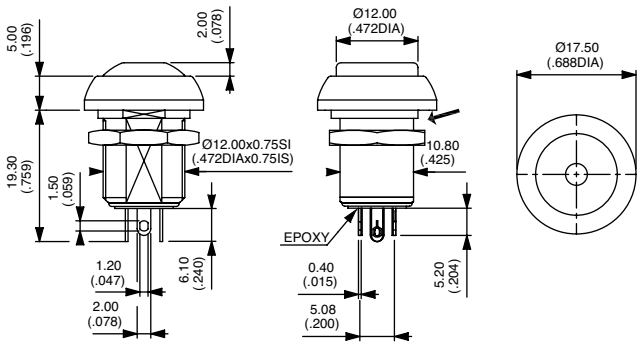
ILLUMINATED SOLDER LUG TERMINALS

Curved actuator
ILR3SAD Normally open

Flat actuator
ILP3SAD Normally open

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

→ FLAT

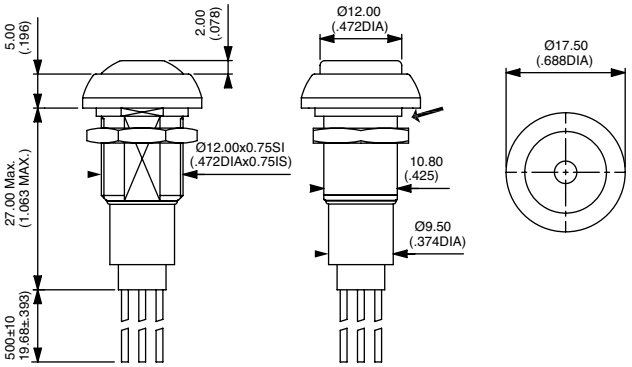


ILLUMINATED SEALED FLYING LEAD TERMINALS

Curved actuator
ILR3FAD Normally open

Flat actuator
ILP3FAD Normally open

→ FLAT



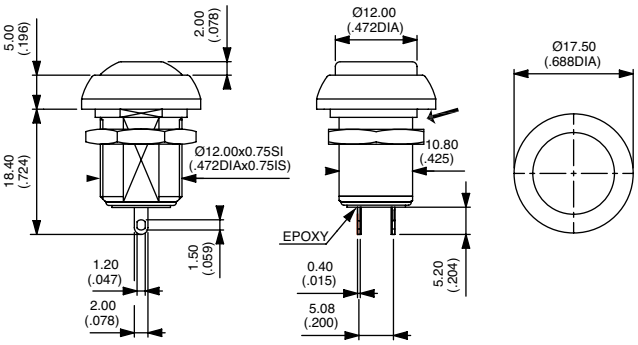
NON ILLUMINATED SOLDER LUG TERMINALS

Curved actuator
ILR3SAD Normally open

Flat actuator
ILP3SAD Normally open

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

→ FLAT



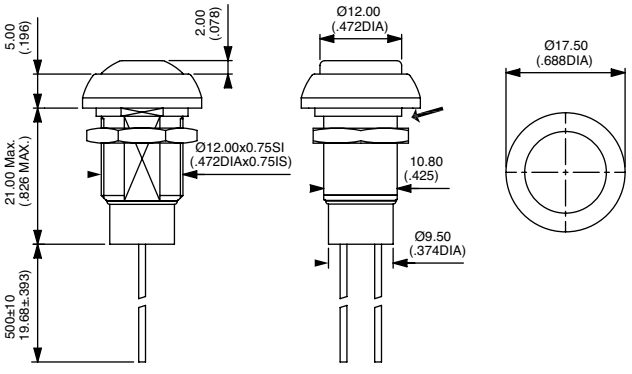
NON ILLUMINATED FLYING LEAD TERMINALS

Curved actuator
ILR3FAD Normally open

Flat actuator
ILP3FAD Normally open

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

→ FLAT



IL series

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REDUCED BEZEL FOR COMPACT MATRIX MOUNTING - OPTION 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 colors as standard models
- Part numbers on request.

ILP3FAD...X1242

REDUCED BEZEL FOR COMPACT MATRIX MOUNTING - OPTION 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 colors as standard models
- Part numbers on request.

ILP3FAD...234

ACTUATOR COLORS

BASIC P/N

1	Blue	**6**	Red
B	Dark blue	**7/1**	White
2	Black	**8**	Bright chrome
3	Green	**9**	Orange
4	Grey	**A**	Satin chrome
5	Yellow		

LED COLORS

BASIC P/N

Blank	Non-illuminated
L0S	Super Red
L0Y	Yellow
L0G	Green
L0B	Blue
L0W	White
LSG	Red/green
LYG	Yellow/green

LifeElectronics
Живое партнерство

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- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
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- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

Тел: +7 (812) 336 43 04 (многоканальный)
Email: org@lifeelectronics.ru

www.lifeelectronics.ru