

# LPI series

Tactile pushbutton switches  
with large actuator



## DISTINCTIVE FEATURES

- Large ergonomic actuator Ø 35 (1.378)
- Tactile feedback
- Low behind-panel depth 21 (.827) max.
- Wide choice of markings
- Ring or dot illumination



## ENVIRONMENTAL SPECIFICATIONS

- Environmental protection :  
IP53 for sealed version - IP40 for unsealed version
- Impact resistance : IK06 for NO/NC version - IK04 for NO version
- Operating temperature : - 20 °C to +65 °C (-4 °F to +149 °F)
- Storage temperature : - 40°C to +70°C (-40 °F to +158 °F)



## ELECTRICAL SPECIFICATIONS

- Snap-action, momentary function
- Mechanical life : 1,000,000 cycles min. for 5 A NO/NC  
5,000,000 cycles min. for 50 mA NO
- Max. current/voltage rating with resistive load :

5 A NO/NC version	50 mA NO version
5 A 12 VDC - 50,000 cycles 100 mA 12 VDC - 1,000,000 cycles	50 mA 24 VDC - 5,000,000 cycles

- Min. current with resistive load : 0.5 mA at 24 VDC for NO version
- Contact resistance : 100 mΩ max.
- Dielectric strength : 500 Vrms 50 Hz between terminals  
1,000 Vrms 50 Hz between terminals and ground
- Insulation resistance : 10 MΩ at 500 VDC
- Integrated resistors for illuminated versions
- LED current : 20 mA typical for dot or ring (30 mA max.)
- LED protected from reverse polarity
- Stand-by consumption : 0.5 VA max.

The company reserves the right to change specifications without notice.



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## GENERAL SPECIFICATIONS

- Operating force : 2.5 to 5 N (unsealed)
- Total travel : 2 mm ± 0.3 mm
- Panel thickness : 1 to 4 mm (.039 to .157)



## MATERIALS

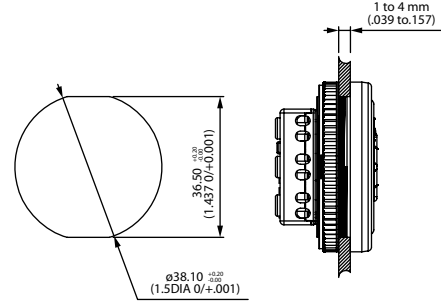
- Switch block : thermoplastic for 5 A NO/NC
- Contacts :
  - 5 A NO/NC : silver, gold plated
  - 50 mA NO : silver
- Actuator crimped symbol : 304L stainless steel

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

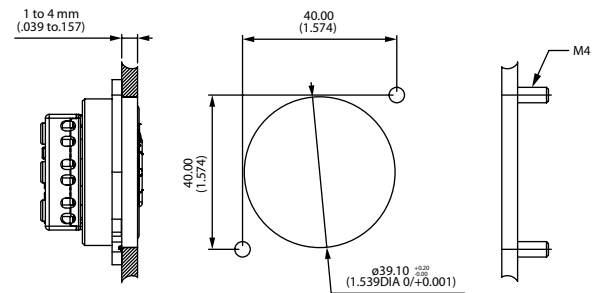


## PANEL CUT-OUT

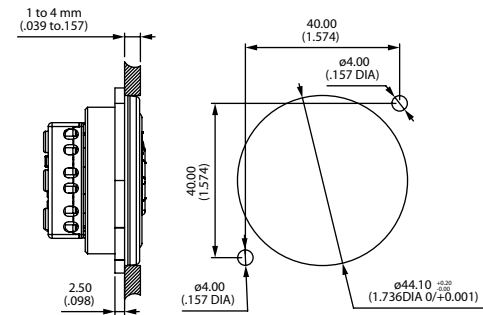
### FRONT MOUNTING



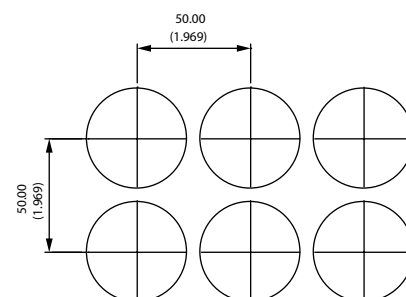
### REAR MOUNTING - UNSEALED VERSION



### REAR MOUNTING - SEALED VERSION

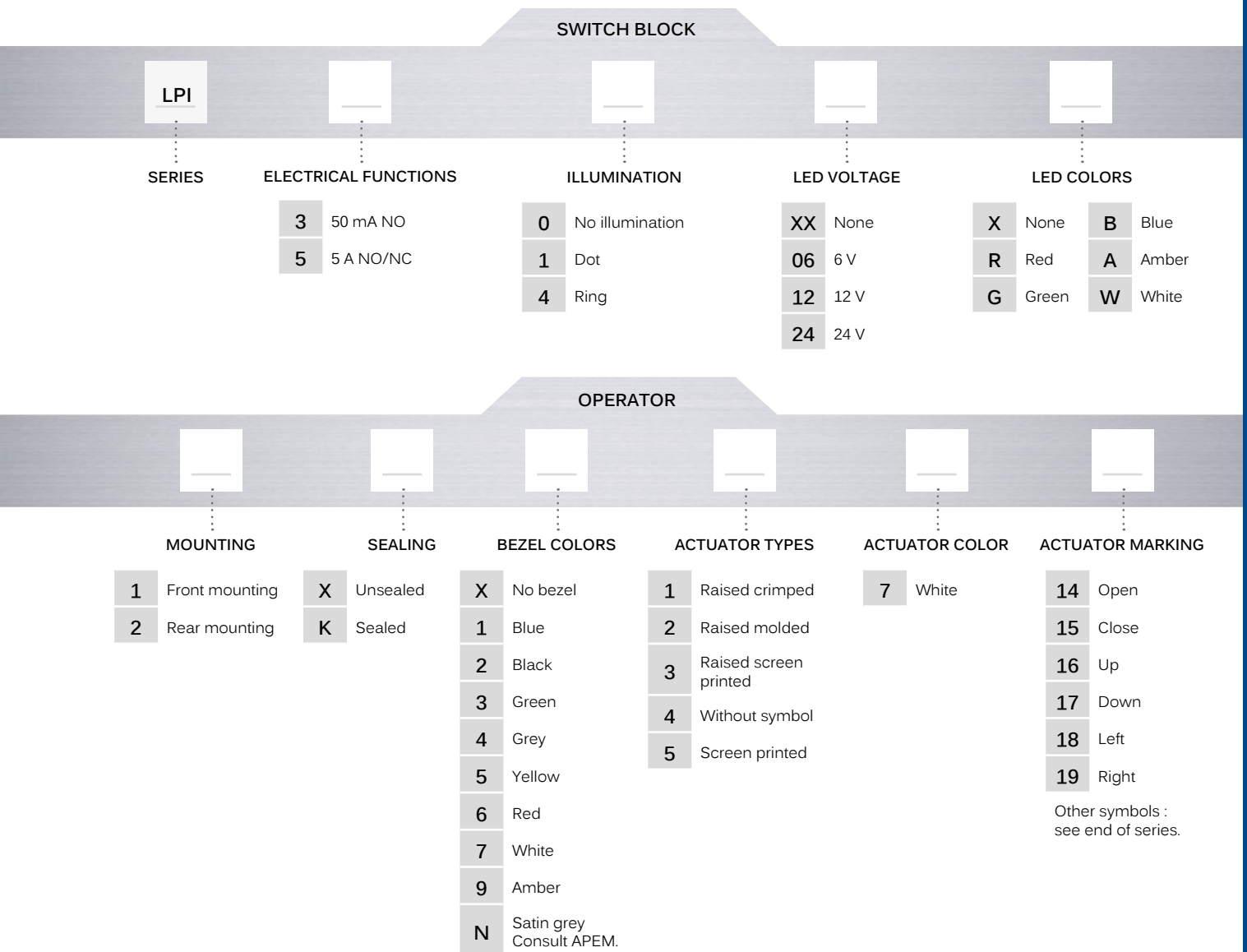


## MATRIX MOUNTING





## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

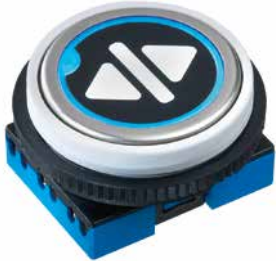
On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

- ⚠ **Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- 🔒 **Sealing boot** available to increase the sealing of LPI switches. See "Sealing Boots" section of website.

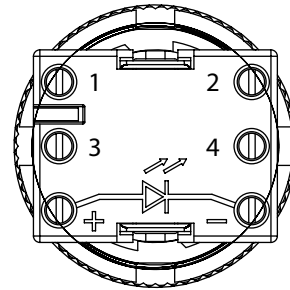
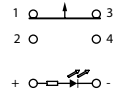
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## 5 A MOMENTARY NC/NO COMBINED



LPI5

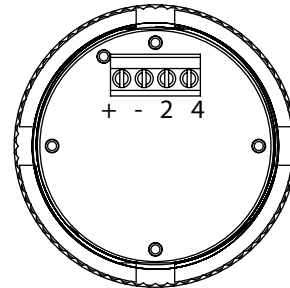
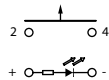


**Terminal block**  
 Wire size : AWG20-15 - 0.5 to 1,5 mm<sup>2</sup>  
 Rated torque : 0.5 Nm  
 Screw size : M3

## 50 mA MOMENTARY NO



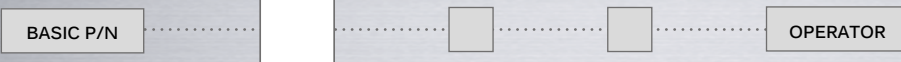
LPI3



**Terminal block**  
 Wire size : AWG28-16 - 0.5 to 1 mm<sup>2</sup>  
 Rated torque : 0.4 Nm  
 Screw size : M2

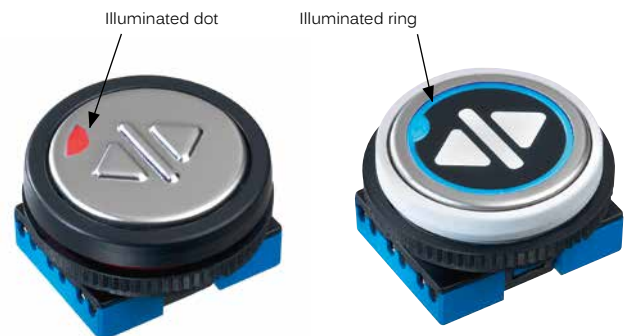
### SWITCH BLOCK

### ILLUMINATION



- 0 Non-illuminated
- 1 Illuminated dot (1 LED)
- 4 Illuminated ring (4 LEDs)

Option 4 available only in the case of screen-printed symbol



1

4

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## SWITCH BLOCK

## LED VOLTAGE



- XX Non-illuminated
- 06 6 V
- 12 12 V
- 24 24 V

- Integrated resistors
- LED current : 20 mA typical for dot or ring (30 mA max.)
- LEDs protected from reverse polarity
- Stand-by consumption for illuminated product : 0.5 VA max.

⚠ Combination with other options : see table below.

## SWITCH BLOCK

## LED COLORS



- X Non-illuminated
- R Red
- G Green
- A Amber
- B Blue
- W White

For illuminated ring, see table opposite.

### COLORS AVAILABLE WITH ILLUMINATED RING (OPTION 4)

	Red	Green	Amber	Blue	White
<b>LED voltage</b>					
<b>Version 5 A</b>					
6 V	No	No	No	No	No
12 V	Yes	Yes	No	No	No
24 V	Yes	Yes	Yes	Yes	Yes
<b>LED voltage</b>					
<b>Version 50 mA</b>					
6 V	No	No	No	No	No
12 V	Yes	No	Yes	No	No
24 V	Yes	Yes	Yes	Yes	Yes

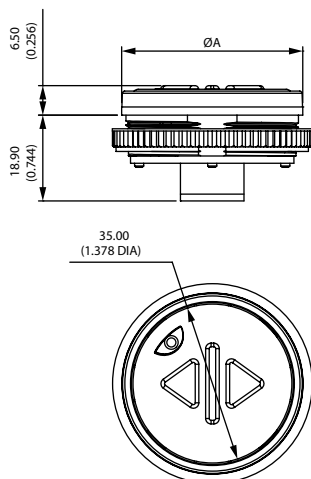
## OPERATOR

## MOUNTING

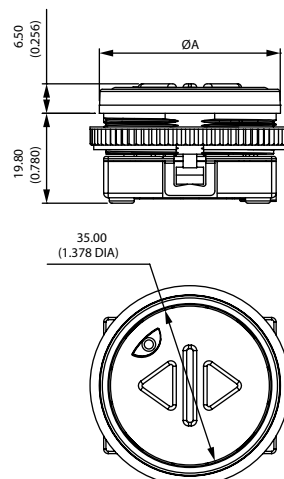


- 1 Front mounting
- 2 Rear mounting

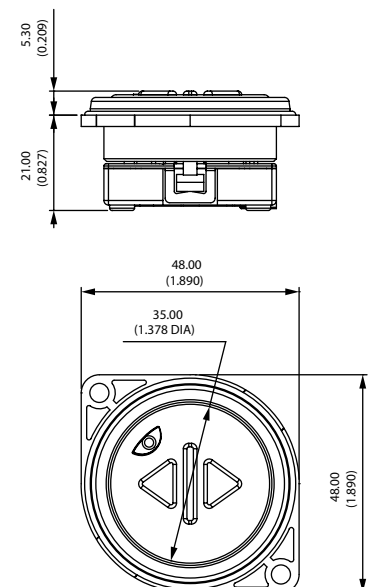
FRONT MOUNTING - 50 mA VERSION



FRONT MOUNTING - 5 A VERSION



REAR MOUNTING - ALL VERSIONS



### Dimension A

Sealed models : 44 mm (1.732) / Unsealed models : 39.9 mm (1.570)

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## OPERATOR

### SEALING



- X Unsealed
- K Sealed

Note : bezel compulsory on sealed versions.

## OPERATOR

### BEZEL COLORS



X	No bezel	5	Yellow
1	Blue	6	Red
2	Black	7/1	White
3	Green	9	Orange
4	Grey		

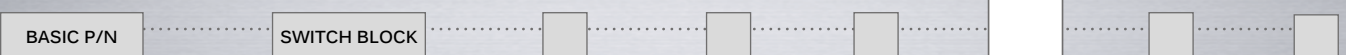


Satin grey (option N) : consult APEM.

For sealed versions, the bezel is compulsory.

## OPERATOR

### ACTUATOR TYPES



- 1 Stainless steel raised crimped symbol
- 2 Raised molded symbol (star and bell)
- 3 Raised screen printed symbol
- 4 Without symbol
- 5 Screen printed symbol

Ring illumination available with options 3, 4 and 5 only.



1

2

3

4

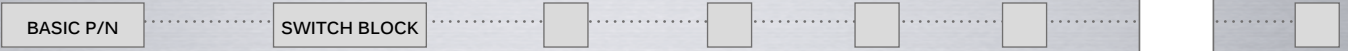
5

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## OPERATOR

## ACTUATOR COLOR



7 White



## OPERATOR

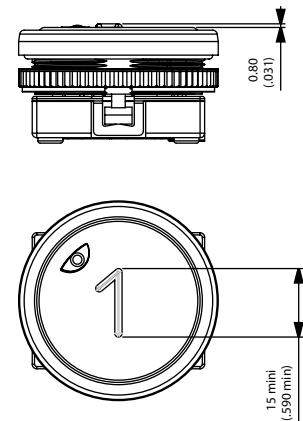
## ACTUATOR MARKING



CODE	SYMBOL	DESCRIPTION
XX	/	No symbol
00	0	
01	1	
02	2	
03	3	
04	4	
05	5	With single tactile point
06	6	
07	7	
08	8	
09	9	
11	-1	
12	-2	
13	-3	

CODE	SYMBOL	DESCRIPTION
14		Open
15		Close
16		Up
17		Down
18		Left
19		Right
20		Ventilation
21		Alarm (molded, yellow)
22		Exit level (molded, green)
23		Phone

## ACTUATOR TYPE 1



## SYMBOL HEIGHT

	Symbol 21	Symbol 22	Other symbol
Actuator type 1	X	X	0.8 mm
Actuator type 2	0.8 mm	5 mm	X
Actuator type 3	X	X	0.8 mm
Actuator type 4	X	X	X
Actuator type 5	X	X	0 mm

x = non available

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