

**New!**

# PBA series

Piezo switches Ø 30 mm

*Distinctive features and specifications*

SW-PBA30-1706



- Bushing diameter 30 mm (1.181)
- Sealed to IP68 and IP69K (switches mounted on panel)
- Easy to clean metal surface
- Very long life expectancy
- Ring illumination: flush or prominent ring

## ENVIRONMENTAL SPECIFICATIONS

- Sealing : IP68 per IEC 60529, IP69K per DIN 40050-9 (switches mounted on panel)
- Operating temperature : -40 °C to +75 °C (-40 °F to +167 °F)

## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 1 A 24 VAC/DC
- Switch resistance ON : 10 Ω max.
- Switch resistance OFF : 5 MΩ min.
- Life expectancy : 50 million cycles
- LED consumption : 20 mA

## GENERAL SPECIFICATIONS

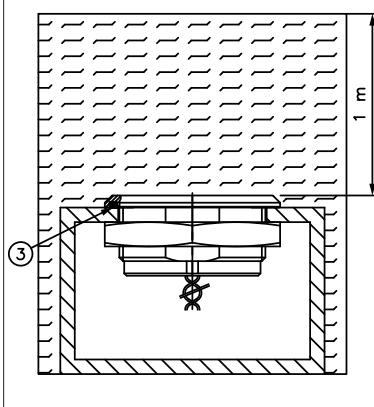
- Operating force : 6 to 12 N
- Torque : 1.5 Nm min. - 10 Nm max

## MATERIALS

- Case : aluminum, anodized or stainless steel 316L
- Multi-wire leads section 0,22 mm<sup>2</sup> length 300 mm, twisted by pair
- Cable, length 300 mm, section depending on switch model

**Note** : to maintain the ESD performance, always add a ground washer when the panel is made of non-conductive material (PVC, polycarbonate).  
For part numbers, see "Mounting accessories" on the following pages.

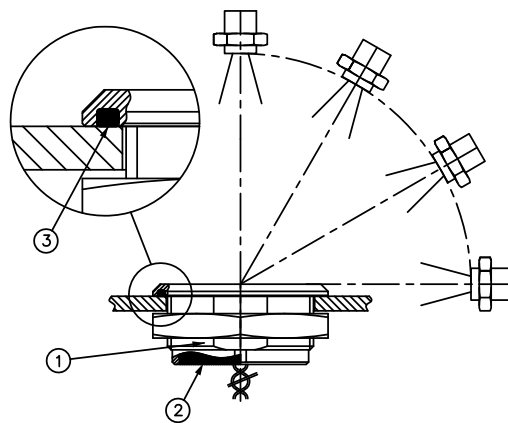
## SEALING IP68



### Continuous immersion in water IP68 test conditions

Continuous immersion in water  
(1m, 24 hours)

## SEALING IP69K



### High pressure, high temperature wash down IP69K test conditions

- . Pressure : 80 - 120 bars
- . Distance : 15 cm
- . Temperature : 80°C ± 5°C
- . Flow : 14 - 16 l/min
- . Duration : 30 seconds per position

- ① One-piece bushing
- ② Epoxy sealed terminals
- ③ O-ring

The company reserves the right to change specifications without notice.

# PBA series

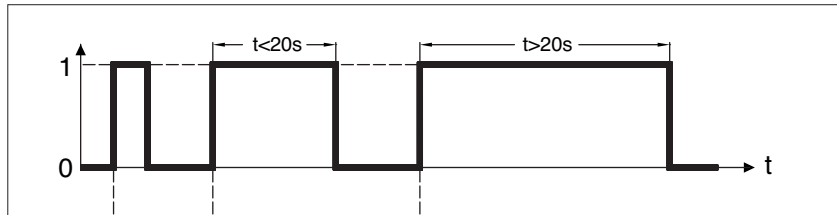
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Piezo switches Ø 30 mm

Electrical functions

## FINGER PRESSURE applied to switch

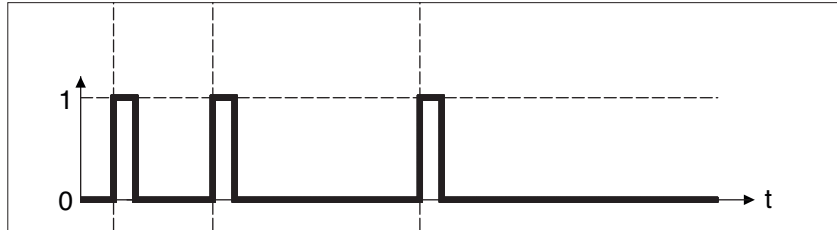
1 = pressure  
0 = no pressure



## OUTPUT

- Momentary NO (pulse)  
No external power supply required

1 = closed output  
0 = open output



## Wiring diagrams

	Non-illuminated	1 LED *	2 LEDs	3 LEDs
Momentary NO				

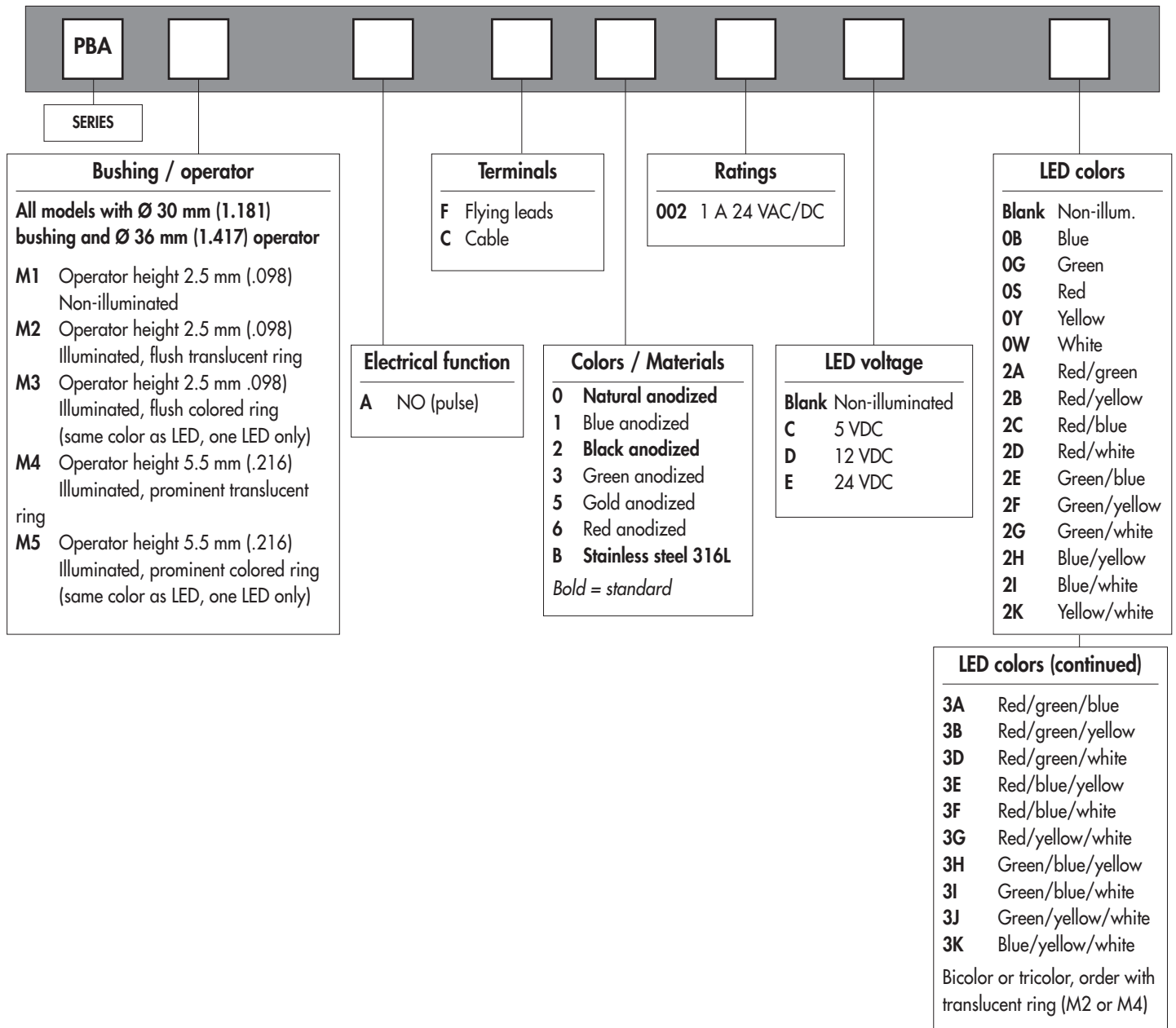
**Legend :** C = yellow, D = blue, B = black, A = same color as LED \* LED color is indicated by the bottom of the product.

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# PBA series

Piezo switches Ø 30 mm

Overview



For options not listed above, please contact APEM.

**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.



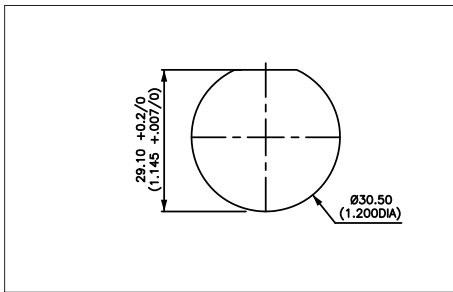
**Mounting accessories** : standard hardware supplied : 1 hex nut U6730 (36 mm ac. flats) and 1 O-ring. Always add a ground washer U7340 when the panel is non-conductive (PVC, polycarbonate).

# PBA series

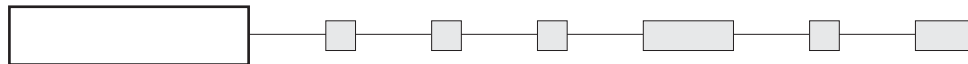
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Piezo switches  $\varnothing$  30 mm

*Illuminated or non-illuminated*



**MODEL STRUCTURE**

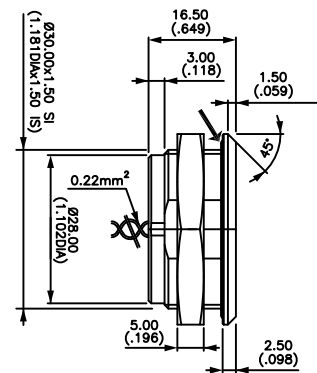
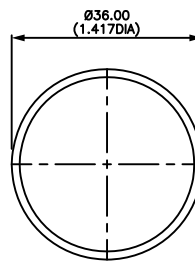


Shown with flying lead terminals

**Non-illuminated, operator height 2.50 mm (.098)** → O-ring



PBAM1

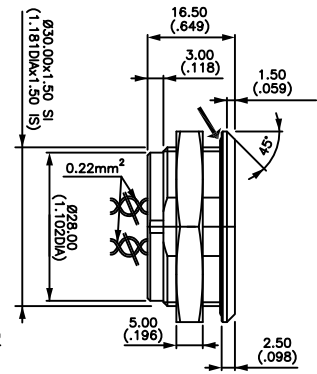
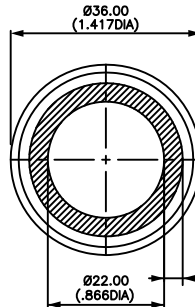


**Flush illuminated ring, operator height 2.50 mm (.098)** → O-ring



Translucent ring  
PBAM2

Colored ring  
PBAM3

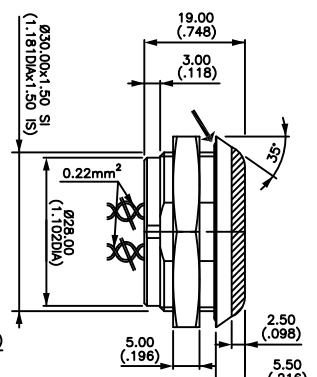
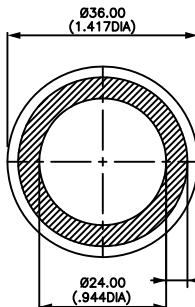


**Prominent illuminated ring, operator height 5.50 mm (.216)** → O-ring



Translucent ring  
PBAM4

Colored ring  
PBAM5



Wire colours : see "Wiring diagrams" on previous pages.

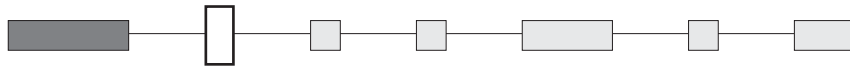
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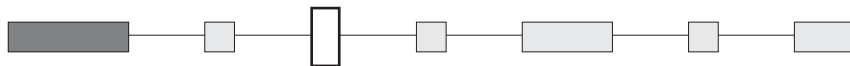
*Options*

## ELECTRICAL FUNCTION

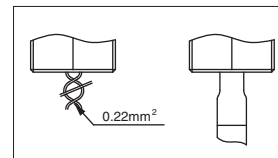


**A** NO pulse

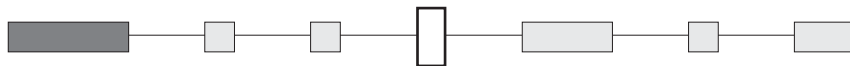
## TERMINALS



**F** Flying leads  
**C** Cable



## CASE COLORS / MATERIALS



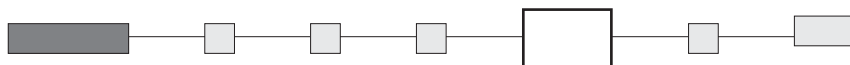
Code	Color
<b>0</b>	<b>Natural anodized aluminum</b>
<b>1</b>	Blue anodized aluminum
<b>2</b>	<b>Black anodised aluminum</b>

Code	Colour
<b>3</b>	Green anodized aluminum
<b>5</b>	Gold anodized aluminum
<b>6</b>	Red anodized aluminum

Code	Color
<b>B</b>	<b>Stainless steel 316L</b>

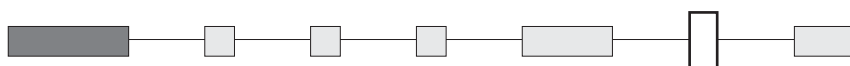
*Bold = standard*

## RATINGS



**002** 1 A 24 VAC or DC

## LED VOLTAGE



**Blank** : non-illuminated

**C** 5 VDC  
**D** 12 VDC  
**E** 24 VDC

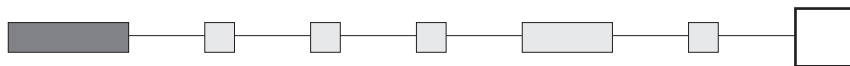
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*Options*

## LED COLORS



Integrated LED resistor

**Blank** : non-illuminated

### Illuminated 1 LED \*

**0B** : blue - **0G** : green - **0S** : red - **0Y** : yellow - **0W** : white

### Illuminated 2 LEDs (with translucent ring)

**2A** : red/green - **2B** : red/yellow - **2C** : red/blue - **2D** : red/white - **2E** : green/blue - **2F** : green/yellow - **2G** : green/white  
**2H** : blue/yellow - **2I** : blue/white - **2K** : yellow/white

### Illuminated 3 LEDs (with translucent ring)

**3A** : red/green/blue - **3B** : red/green/yellow - **3D** : red/green/white - **3E** : red/blue/yellow - **3F** : red/blue/white  
**3G** : red/yellow/white - **3H** : green/blue/yellow - **3I** : green/blue/white - **3J** : green/yellow/white - **3K** : blue/yellow/white

\* LED color is indicated by the bottom of the product.