

# CP series

Capacitive switches



## DISTINCTIVE FEATURES

Activated by the touch of a finger

50 million cycles

Auto-calibration function

Bushing diameter 16 (.630), 19 (.748) or 22 (.866)

Momentary or latching



## ENVIRONMENTAL SPECIFICATIONS

- Sealing : IP68 and IP69K according to IEC 60529
- Triggered by flowing water
- Impact resistance : IK10
- Operating temperature : -20 °C to +65 °C (-4 °F to +149 °F)
- ESD : complies with EN61000-4-2 (extended) ± 8KV (20 contacts) and ± 15KV (20 air discharges)



## ELECTRICAL AND GENERAL SPECIFICATIONS

- Max. current/voltage rating : 200 mA 24 VDC
- Supply voltage : 5 VDC, 12 VDC or 24 VDC
- Life expectancy : 50 million cycles
- Power consumption non-illuminated : 7 mA
- Power consumption illuminated : 25 mA
- Operating force : 0 N
- LED state for output image option :
  - 1 LED : the LED is ON when the output is closed.
  - 2 LEDs : first color is ON when the output is open. Second color is ON when the output is closed.
- Output type : NPN



## MATERIALS

- Case : aluminum, anodized
- Multi-wire leads section 0.22 mm<sup>2</sup> length 300 mm
- Cable, length 300 mm, section depending on switch model
- Connector : HE14 6V compatible with AMP/TYCO281839-3

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

The company reserves the right to change specifications without notice.



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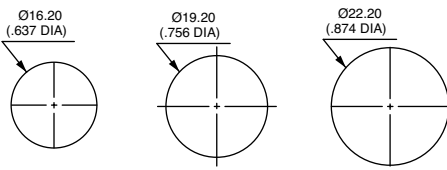


## ADJUSTABLE SENSITIVITY

- Connection to ground by means of the yellow wire increases sensitivity (momentary version only).



## PANEL CUT-OUT

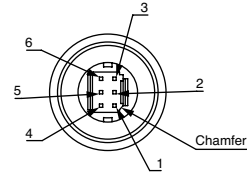


⚠ This switch should not be used in safety applications.



## WIRING FOR SWITCH CONNECTOR

- Pin 1 : GND
- Pin 2 : output
- Pin 3 : +V
- Pin 4 : LED 2
- Pin 5 : sensitivity
- Pin 6 : LED 1



## WIRING DIAGRAMS

	Non-illuminated	Illuminated 1 LED		Illuminated 2 LEDs	
		Output indicator	Independent	Output indicator	Independent
OFF-ON					
OFF - MOM					

**Legend :**

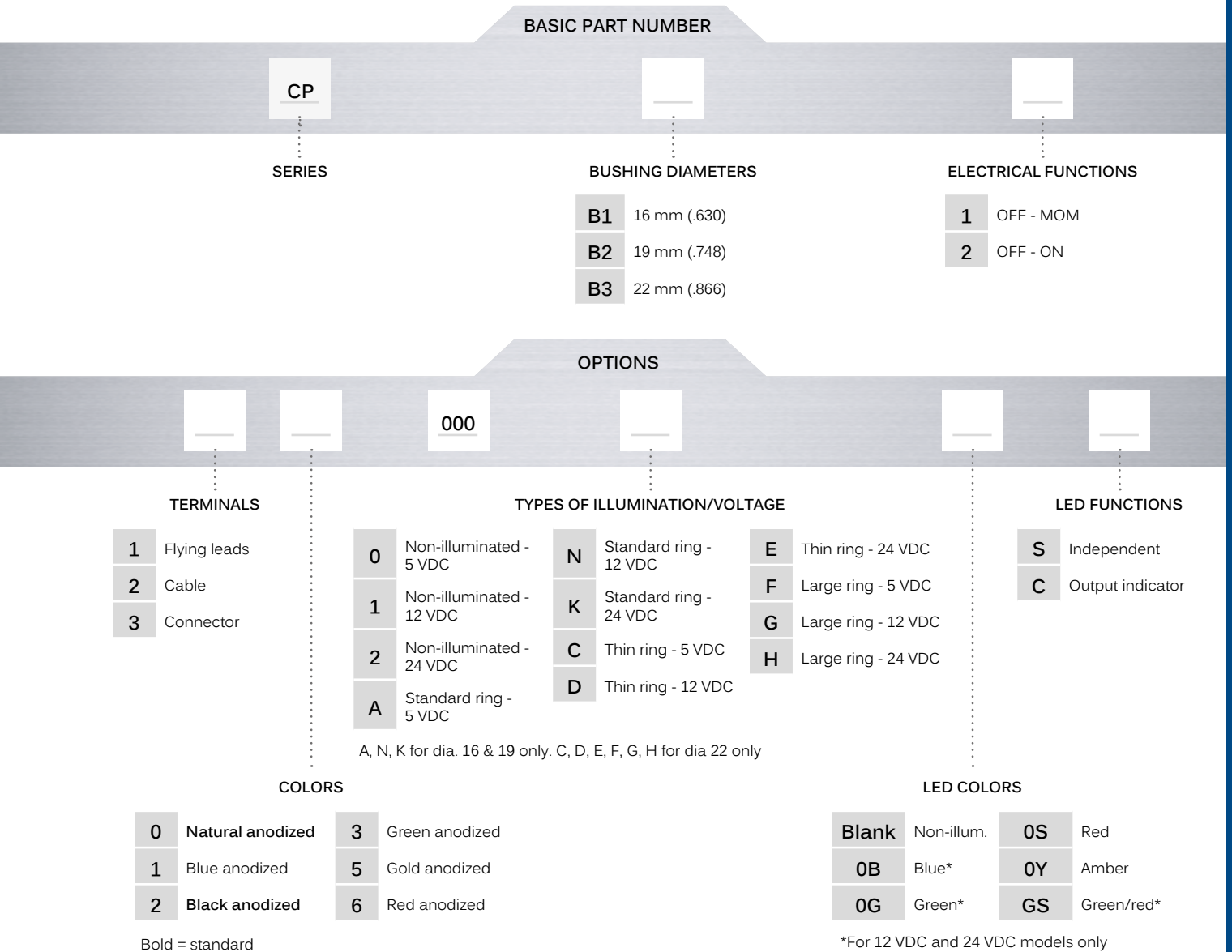
R : red / +V, **Black** : black / GND, W : white / output, Y : yellow / sensitivity, G : green / LED 1, **Blue** : blue / LED2  
 Wire colors may vary. Always refer to the label on the switch.

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## 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.

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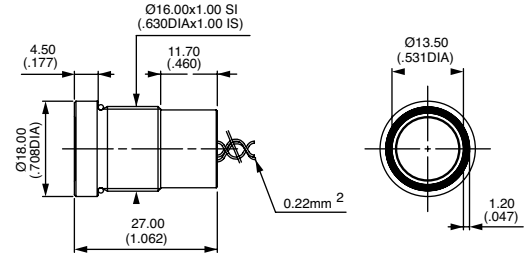
Capacitive switches

## BUSHING Ø16 MM (.630) - STANDARD RING



Momentary			
<b>CPB11</b>	OFF	MOM	
Latching			
<b>CPB12</b>	OFF	ON	

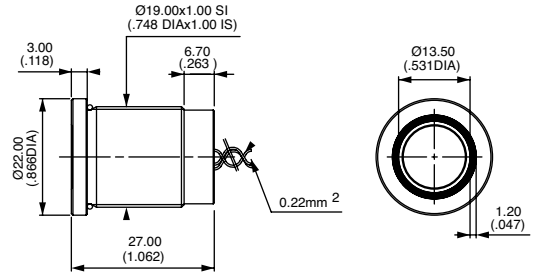
Shown with flying lead terminals



## BUSHING Ø19 MM (.748) - STANDARD RING



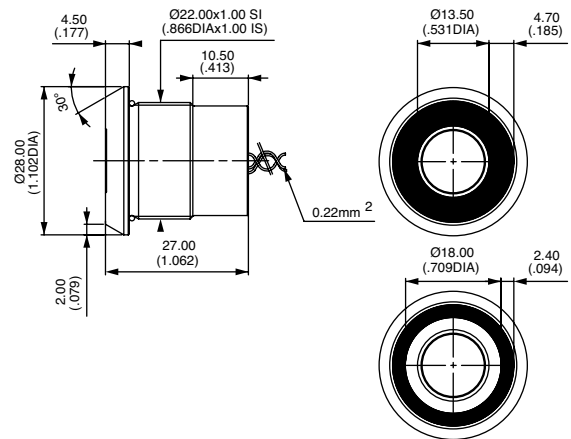
Momentary			
<b>CPB21</b>	OFF	MOM	
Latching			
<b>CPB22</b>	OFF	ON	



## BUSHING Ø22 MM (.866) - LARGE OR THIN RING



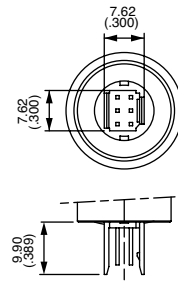
Momentary			
<b>CPB31</b>	OFF	MOM	
Latching			
<b>CPB32</b>	OFF	ON	



### TERMINALS



- 1 Flying leads
- 2 Cable
- 3 Connector HE14 6 V (see opposite)



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## CASE COLORS



- 0 **Natural anodized**
- 1 Blue anodized
- 2 **Black anodised**
- 3 Green anodized
- 5 Gold anodized
- 6 Red anodised

Bold = standard

## TYPE OF ILLUMINATION



	5 VDC	12 VDC	24 VDC
Non-illuminated	0	1	2
Standard ring (Ø 16 & 19 only)	A	N	K
Thin ring (Ø 22 only)	C	D	E
Large ring (Ø 22 only)	F	G	H

## LED COLORS



- Blank Non-illuminated
- 0B Blue
- 0G Green
- 0S Red
- 0Y Amber
- GS Green/red

⚠ Blue, green and green/red LEDs available on 12 VDC and 24 VDC models only.

## LED FUNCTIONS



- S Independent
- C Output indicator