



**langir**<sup>®</sup>

Capacitive switch  
[www.langir.com](http://www.langir.com)



## FEATURES

Bushing diameter:  
16 (.630), 19 (.748), 22 (.866) or 25(0.984)

Activated by the touch of a finger

50 million cycles

Auto-calibration function

Momentary or latching

Illuminated and Non-illuminated

The new CP series capacitive switches technology senses the touch of a finger and creates an electrical charge to activate the switches

An auto-calibration function ensures the sensor adapts to changing external environments.

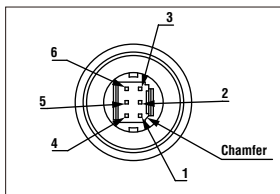
LANGIR's capacitive switches are specially designed for durability and a low activation force. As sensitive as a touch screen, the capacitive switches are perfect for industrial applications where repetitive activation can cause operator fatigue.



**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 :
- Pin 6 : LED 1



## WIRING DIAGRAMS

	Non-illuminated	1 LED		2 LEDs		Legend R red +V Black black GND W white output A = same colour as LED
		Output indicator	Independent	Output indicator	Independent	
OFF-ON						Wire colours may vary. Always refer to the label on the switch.
OFF-MOM						

**Dimensions:** first dimensions are in mm while inches are shown as bracketed numbers.

**Tolerance:** The general tolerance for dimensions in this brochure is  $\pm 0,3 (.012)$ .

**Dimensions, specifications and data shown in this brochure are subject to change without notice.**



## 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)  $\pm 8$ KV (20 contacts) and  $\pm 15$ KV (20 air discharges)



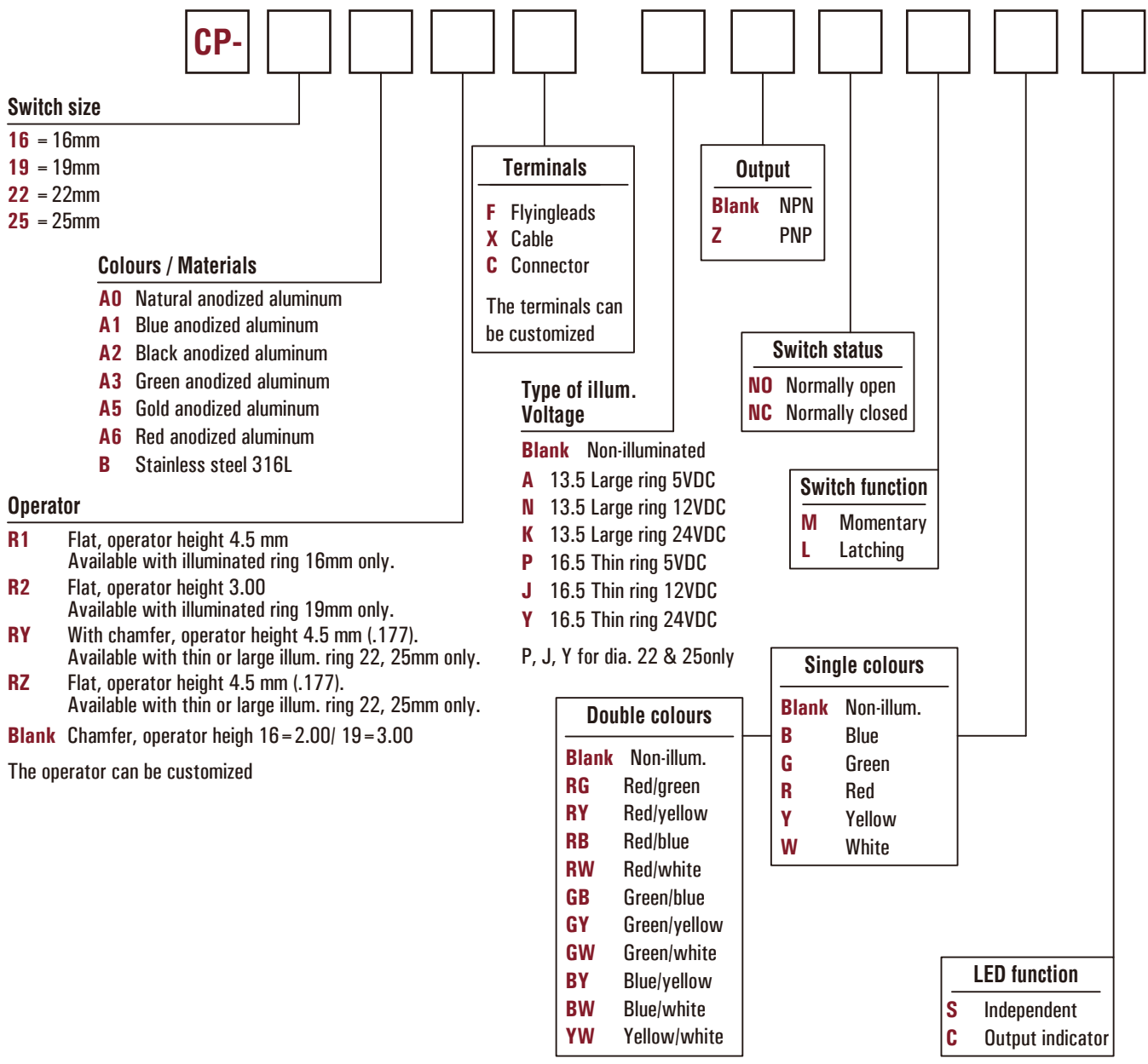
## ELECTRICAL SPECIFICATIONS

- 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 or PNP



## MATERIALS

- Case : aluminum, anodized or stainless steel 316L
- 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



**Switch size**  
**16** = 16mm  
**19** = 19mm  
**22** = 22mm  
**25** = 25mm

**Colours / Materials**  
**A0** Natural anodized aluminum  
**A1** Blue anodized aluminum  
**A2** Black anodized aluminum  
**A3** Green anodized aluminum  
**A5** Gold anodized aluminum  
**A6** Red anodized aluminum  
**B** Stainless steel 316L

**Operator**  
**R1** Flat, operator height 4.5 mm  
 Available with illuminated ring 16mm only.  
**R2** Flat, operator height 3.00  
 Available with illuminated ring 19mm only.  
**RY** With chamfer, operator height 4.5 mm (.177).  
 Available with thin or large illum. ring 22, 25mm only.  
**RZ** Flat, operator height 4.5 mm (.177).  
 Available with thin or large illum. ring 22, 25mm only.  
**Blank** Chamfer, operator height 16=2.00/ 19=3.00  
 The operator can be customized

**Terminals**  
**F** Flyingleads  
**X** Cable  
**C** Connector  
 The terminals can be customized

**Output**  
**Blank** NPN  
**Z** PNP

**Type of illum. Voltage**  
**Blank** Non-illuminated  
**A** 13.5 Large ring 5VDC  
**N** 13.5 Large ring 12VDC  
**K** 13.5 Large ring 24VDC  
**P** 16.5 Thin ring 5VDC  
**J** 16.5 Thin ring 12VDC  
**Y** 16.5 Thin ring 24VDC  
 P, J, Y for dia. 22 & 25only



**Switch status**  
**NO** Normally open  
**NC** Normally closed

**Switch function**  
**M** Momentary  
**L** Latching

**Double colours**  
**Blank** Non-illum.  
**RG** Red/green  
**RY** Red/yellow  
**RB** Red/blue  
**RW** Red/white  
**GB** Green/blue  
**GY** Green/yellow  
**GW** Green/white  
**BY** Blue/yellow  
**BW** Blue/white  
**YW** Yellow/white

**Single colours**  
**Blank** Non-illum.  
**B** Blue  
**G** Green  
**R** Red  
**Y** Yellow  
**W** White

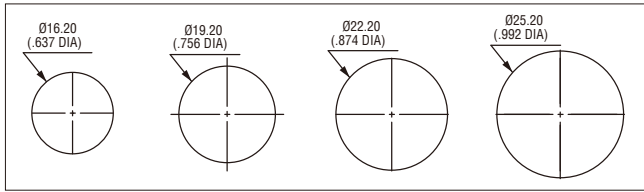
**LED function**  
**S** Independent  
**C** Output indicator

-  Mounting accessories standard hardware supplied :1 hex nut and 1 O-ring
-  Packaging unit: 10 pieces

**For options not listed above, please contact LANGIR.**

The appearance of the products listed on this file, color, parameters are for reference only, issued a kind of Langir Company shall prevail.

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 If in doubt, please contact customer service hotline.



Shown with flying lead terminals.

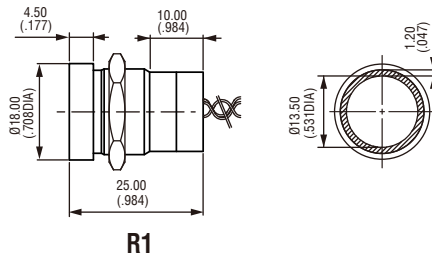
### Bushing Ø 16 mm (.630)



CP16BFR1FANOMBC

Flat

Chamfer



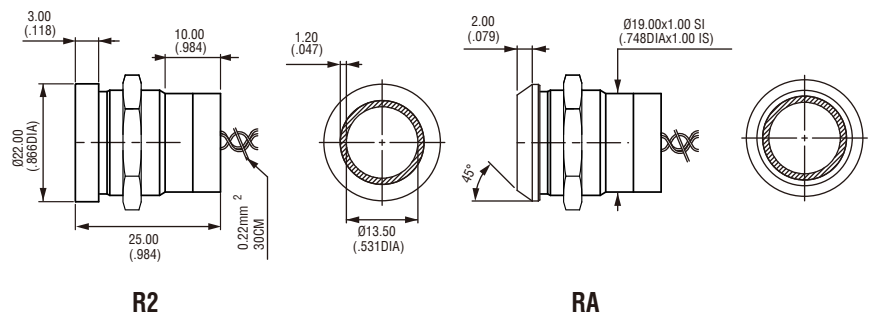
### Bushing Ø 19 mm (.748)



CP19BR2FKNOLBC

Flat

Chamfer



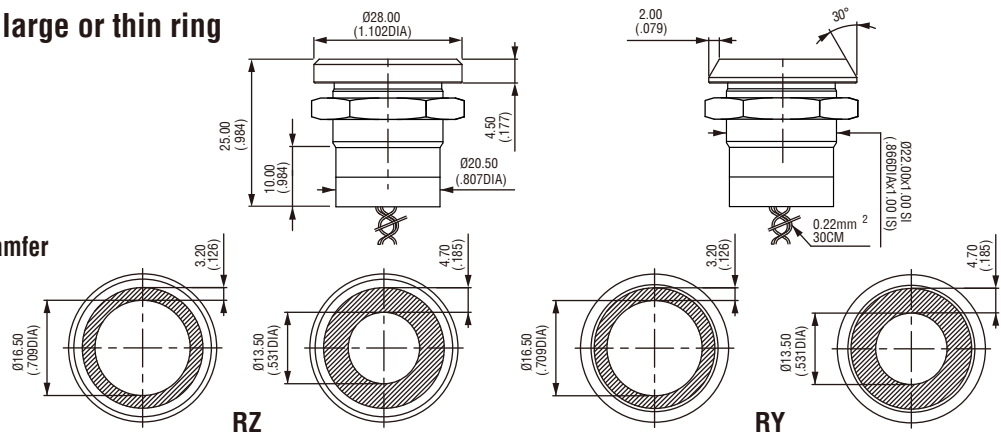
### Bushing Ø 22 mm (.866) - large or thin ring



CP22BRYFNNOMBC

Flat

Chamfer



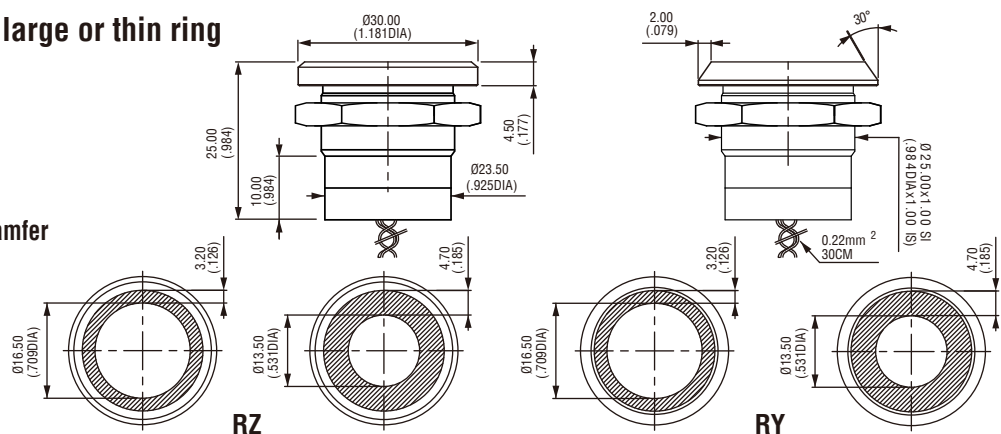
### Bushing Ø 25 mm (.984) - large or thin ring



CP25BRZFNNOMBC

Flat

Chamfer



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**YUEQING LANGIR ELECTRIC CO., LTD.**

ADD: 4F, NO. 188 LIUQING NORTH RD, LIUSHI, YUEQING, ZHEJIANG, CHINA 325604

FAX: 86 (577) 62737671

TEL: 86 (577) 62737672 62737670

MAIL: langir@langir.com

Http://www.langir.com