

# Capacitive sensor

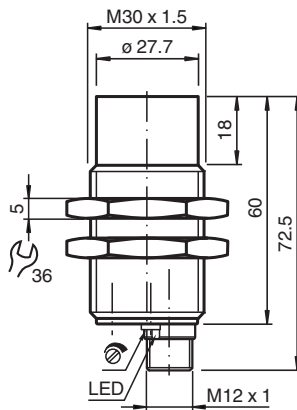
## CCN15-30GS60-A2-V1



- 15 mm non-flush
- Operating distance adjustable via potentiometer
- High EMC resistance
- Stainless steel version
- Complementary outputs
- Operating voltage range 10 V ... 60 V DC



### Dimensions



### Technical Data

#### General specifications

Switching function		complementary
Output type		PNP
Rated operating distance	$s_n$	15 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 12.1 mm
Output type		4-wire

#### Nominal ratings

Installation conditions		
A		18 mm
B		10 mm
C		30 mm
F		60 mm
Operating voltage	$U_B$	10 ... 60 V DC
Switching frequency	$f$	0 ... 10 Hz
Reverse polarity protection		reverse polarity protected

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

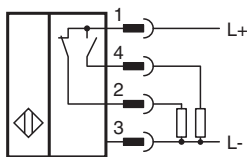
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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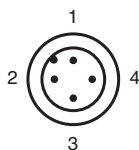
## Technical Data

Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.8 \text{ V}$
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C
Off-state current $T_U = 40 \text{ °C}$ , switching element off		$\leq 100 \mu\text{A}$
No-load supply current	$I_o$	$\leq 20 \text{ mA}$
Time delay before availability	$t_v$	$\leq 50 \text{ ms}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		750 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
Potentiometer		sensitivity adjustment
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67

## Connection



## Connection Assignment

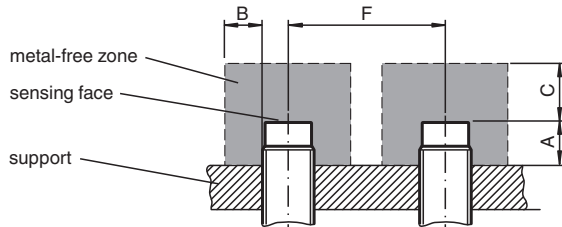


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Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

## Installation



## Accessories

	<b>BF 30</b>	Mounting flange, 30 mm
	<b>V1-G-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
	<b>V1-W-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey

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