

Capacitive sensor

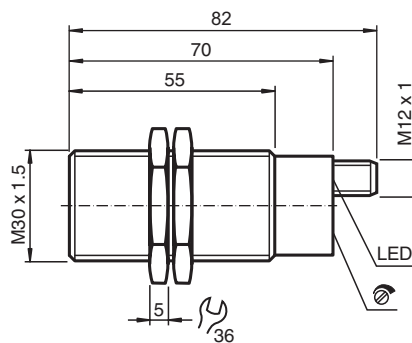
CCB10-30GS55-N1-V1



- 10 mm flush
- The switching distance can be set over a wide range with the potentiometer



Dimensions



Technical Data

General specifications

Switching function	Normally open (NO)	
Output type	NAMUR	
Rated operating distance	s_n	10 mm
Installation	flush	
Output type	2-wire	

Nominal ratings

Installation conditions		
A		0 mm
B		0 mm
C		20 mm
F		60 mm
Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Operating voltage	U_B	5 ... 15 V
Switching frequency	f	0 ... 50 Hz
Reverse polarity protection	reverse polarity protected	

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

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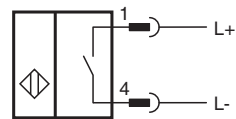
PEPPERL+FUCHS

Technical Data

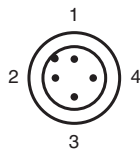
Current consumption		
Measuring plate not detected		≤ 1.5 mA
Measuring plate detected		≥ 2.5 mA
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1134 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
ETL approval		cETLus
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-20 ... 70 °C (-4 ... 158 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PTFE
Degree of protection		IP67
Equipment protection level Ga		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1G Ex ia IIC T1-T6 Ga
Standards		EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007 Ignition protection "Intrinsic safety"
Appropriate type		CCB10-30GS55-N1...
Effective internal capacitance	C _i	max. 250 nF
Effective internal inductance	L _i	max. 200 μH
Highest permissible ambient temperature		
T6 when P _i = 100 mW, U _i = 15 V, I _i = 30 mA		40 °C (104 °F)
T5 when P _i = 100 mW, U _i = 15 V, I _i = 30 mA		40 °C (104 °F)
T4 when P _i = 100 mW, U _i = 15 V, I _i = 30 mA		80 °C (176 °F)
T3, T2, T1 when P _i = 100 mW, U _i = 15 V, I _i = 30 mA		100 °C (212 °F)
Equipment protection level Da		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1D Ex ia IIIC T101°C Da
Standards		EN 60079-0:2012; EN 60079-11:2012 type of protection intrinsic safety "ia"
Appropriate type		CCB10-30GS55-N1...
Effective internal capacitance	C _i	max. 250 nF
Effective internal inductance	L _i	max. 200 μH
General information		
Use in the hazardous area		see instruction manuals
Category		1G; 1D

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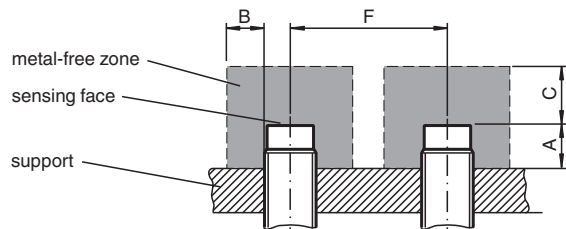
Connection



Connection Assignment



Installation



Accessories

	BF 30	Mounting flange, 30 mm
	V1-W-N4-2M-PVC	Female cordset, M12, 4-pin, NAMUR, PVC cable
	V1-W-N4-5M-PVC	Female cordset, M12, 4-pin, NAMUR, PVC cable
	V1-G-N4-5M-PVC	Female cordset, M12, 4-pin, NAMUR, PVC cable
	V1-G-N4-5M-PUR	Female cordset, M12, 4-pin, NAMUR, PUR cable
	V1-W-N4-5M-PUR	Female cordset, M12, 4-pin, NAMUR, PUR cable

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