



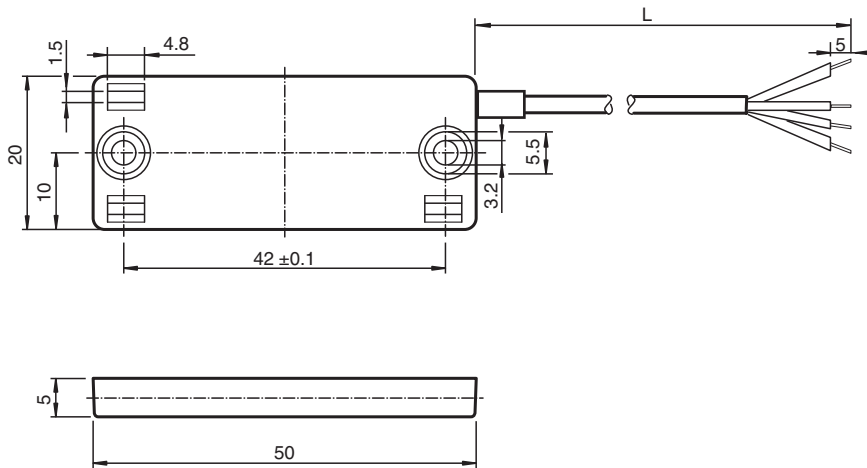
Capacitive sensor

CBN7-F46E-2EU-Y70138043

- Flat housing
- Up to PL c acc. to EN/ISO 13849
- Raised EMC resistance 100 V/m
- 6,5 mm non-flush



Dimensions



Technical Data

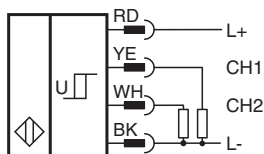
General specifications		
Switching function		complementary
Output type		Digital voltage output
Rated operating distance	s_n	6.5 mm
Installation		non-flush
Output polarity		DC
Output type		4-wire
Nominal ratings		
Installation conditions		
B		5 mm
C		20 mm
F		20 mm / 50 mm
Operating voltage	U_B	5 V DC \pm 0.5 V
Switching frequency	f	0 ... 5 Hz
Hysteresis	H	1 ... 10 % typ. 5 %
Short-circuit protection		yes
Operating current	I_L	0 ... 10 mA

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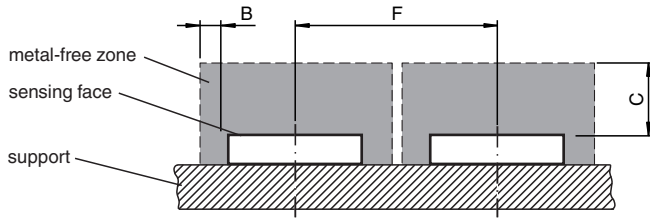
Technical Data

Lowest operating current	I_m	0 mA
Off-state current	I_r	
Off-state current $T_U = 40\text{ °C}$, switching element off		$\leq 100\ \mu\text{A}$
No-load supply current	I_0	$\leq 12\ \text{mA}$
Time delay before availability	t_v	$\leq 100\ \text{ms}$
Functional safety related parameters		
Performance level (PL)		PL c
MTTF _d		$> 7500\ \text{a}$
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		min. 60 %
Digital output		
Output value		channel 1: object detected: $3\ \text{V} \pm 0,2\ \text{V}$, object not detected: $1\ \text{V} \pm 0,2\ \text{V}$ channel 2: object detected: $1\ \text{V} \pm 0,2\ \text{V}$, object not detected: $3\ \text{V} \pm 0,2\ \text{V}$
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2020 EN 60947-5-2/A1:2012 IEC 60947-5-2:2020 IEC 60947-5-2 AMD 1:2012 EN 60947-5-3:2014 EN ISO 13849:2018 EN ISO 13766-2:2018 magnetic field immunity: 6000 A/m according to ISO 11452-8:2015
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated $\leq 36\ \text{V}$
Ambient conditions		
Ambient temperature		$-40 \dots 70\text{ °C}$ ($-40 \dots 158\text{ °F}$)
Storage temperature		$-40 \dots 85\text{ °C}$ ($-40 \dots 185\text{ °F}$)
Mechanical specifications		
Connection type		flexible leads
Housing material		PBT
Sensing face		PBT
Degree of protection		IP65
Cable		
Cable diameter		0.91 ... 0.96 mm
Material		FEP
Number of cores		4
Core cross section		AWG 24 / 19
Length	L	600 mm
Dimensions		
Height		20 mm
Width		50 mm
Length		5 mm

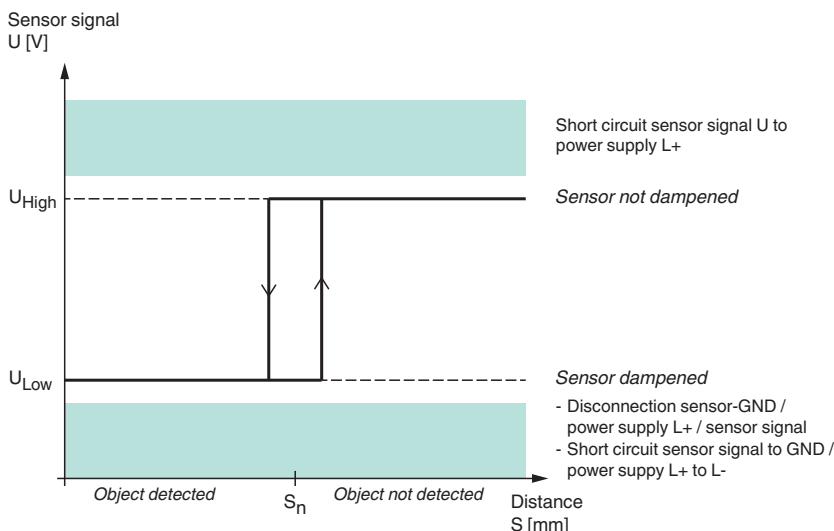
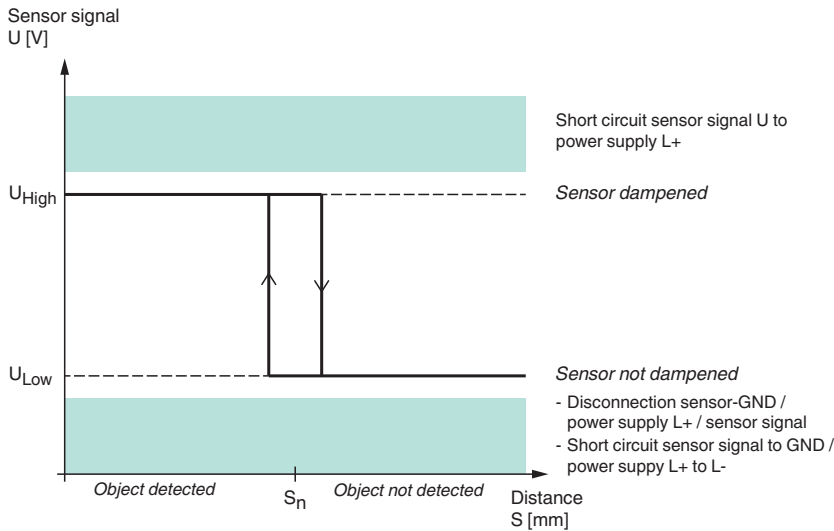
Connection



Installation Conditions



Operation



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