



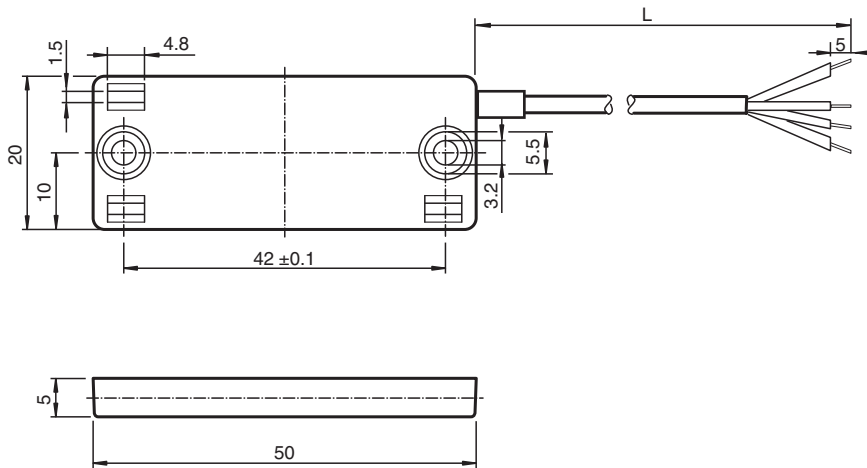
## Capacitive sensor

CBN7-F46E-2EU-Y70154186

- Flat housing
- Performance level PLd (EN13849-1) is attainable
- Raised EMC resistance 100 V/m
- 6,5 mm non-flush



### Dimensions



### Technical Data

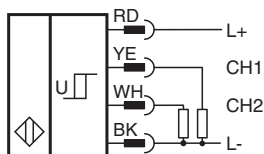
General specifications		
Switching function		complementary
Output type		Digital voltage output
Rated operating distance	$s_n$	6.5 mm
Installation		non-flush
Output polarity		DC
Output type		4-wire
Nominal ratings		
Installation conditions		
B		5 mm
C		20 mm
F		20 mm / 50 mm
Operating voltage	$U_B$	5 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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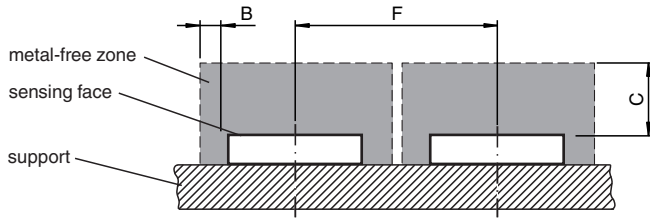
## Technical Data

Lowest operating current	$I_m$	0 mA
Off-state current	$I_r$	
Off-state current $T_U = 40\text{ °C}$ , switching element off		$\leq 100\text{ }\mu\text{A}$
No-load supply current	$I_0$	$\leq 12\text{ mA}$
Time delay before availability	$t_v$	$\leq 100\text{ ms}$
<b>Functional safety related parameters</b>		
Performance level (PL)		PL d
MTTF <sub>d</sub>		$> 7500\text{ a}$
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		min. 60 %
<b>Digital output</b>		
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: $3\text{ V} \pm 0,2\text{ V}$
<b>Compliance with standards and directives</b>		
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
<b>Approvals and certificates</b>		
CCC approval		CCC approval / marking not required for products rated $\leq 36\text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		$-40 \dots 70\text{ °C}$ ( $-40 \dots 158\text{ °F}$ )
Storage temperature		$-40 \dots 85\text{ °C}$ ( $-40 \dots 185\text{ °F}$ )
<b>Mechanical specifications</b>		
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

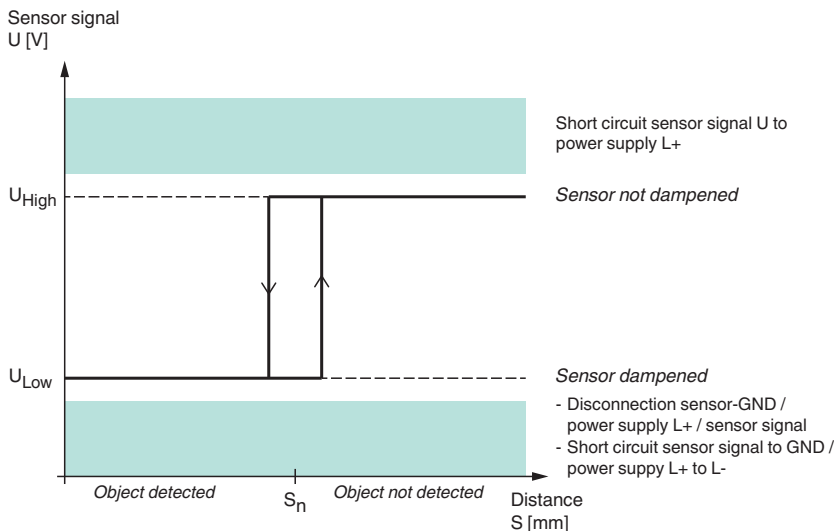
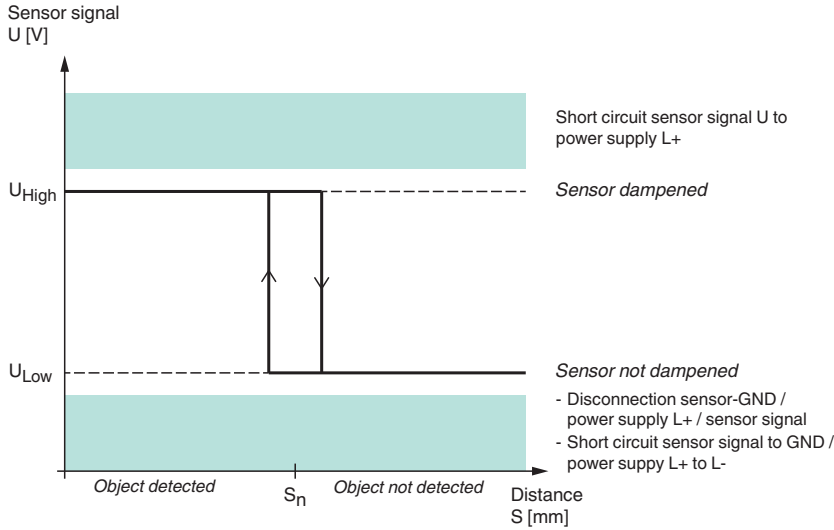
## Connection



**Installation Conditions**



**Operation**



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