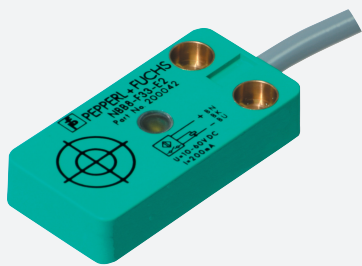


Inductive sensor

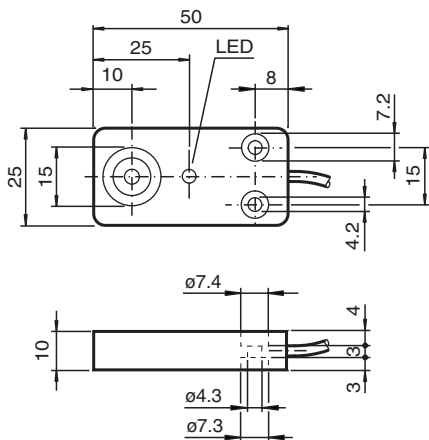
NBN10-F33-E2-M



- 10 mm non-flush
- E1-Type approval
- Extended temperature range
-40 ... +85 °C
- Increased operating distance
- Increased noise immunity 100 V/m



Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s _n	10 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s _a	0 ... 8.1 mm
Reduction factor r _{Al}		0.3
Reduction factor r _{Cu}		0.2
Reduction factor r ₃₀₄		0.6
Output type		3-wire
Nominal ratings		
Installation conditions		
B		2.5 mm
C		1 mm
F		40 mm

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

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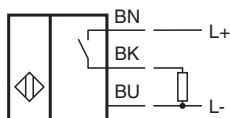
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PEPPERL+FUCHS

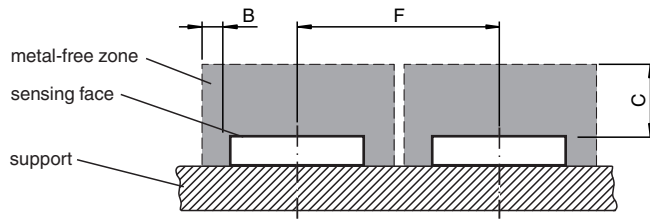
Technical Data

Operating voltage	U_B	5 ... 60 V DC
Switching frequency	f	0 ... 200 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.1 mA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 80 ms
Switching state indicator		LED yellow
Functional safety related parameters		
MTTF _d		1140 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
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
Approvals and certificates		
CCC approval		Certified by China Compulsory Certification (CCC)
E1 Type approval		10R-04
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cablE PUR , 2 m
Core cross-section		0.5 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67 / IP69K
Cable		
Cable diameter		4.8 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter
Note		Tightening torque: 5 Nm

Connection



Installation



Mounting

Emitted interference and interference immunity in accordance with motor vehicle directive 2006/28/EG (e1 Type approval)

Interference immunity in accordance with DIN ISO 11452-2: 100 V/m
Frequency band 20 MHz up to 2 GHz

Mains-borne interference in accordance with ISO

7637-2: Pulse	1	2a	2b	3 a	3b	4	5
Severity level	III	III	III	III	III	III	IV
Failure criterion	C	A	C	A	A	A	C

EN 61000-4-2: CD: 8 kV / AD: 15 kV
Severity level IV IV

EN 61000-4-3: 30 V/m (80...2500 MHz)
Severity level IV

EN 61000-4-4: 2 kV
Severity level III

EN 61000-4-6: 10 V (0.01...80 MHz)
Severity level III

EN 55011: Class A