



Model Number

NBB15-F148P10-E0-M

Features

- 8 mm flush
- 3-wire DC
- Extended temperature range
- E1-Type approval

Technical Data

General specifications

Switching function	Normally open (NO)
Output type	NPN
Rated operating distance	s_n 15 mm
Installation	flush
Output polarity	DC
Assured operating distance	s_a 0 ... 12.15 mm
Reduction factor r_{Al}	0.45
Reduction factor r_{Cu}	0.45
Reduction factor r_{304}	0.8
Reduction factor r_{Brass}	0.55
Output type	3-wire

Nominal ratings

Operating voltage	U_B	10 ... 60 V DC
Switching frequency	f	0 ... 600 Hz
Hysteresis	H	2 ... 20 % (typ. 3 %)
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	≤ 10 μ A
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 300 ms
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d	1156 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

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	0.75 mm ²
Housing material	anodized aluminum
Sensing face	PBT
Degree of protection	IP67 / IP69K
Tightening torque, housing screws	≤ 1.8 Nm

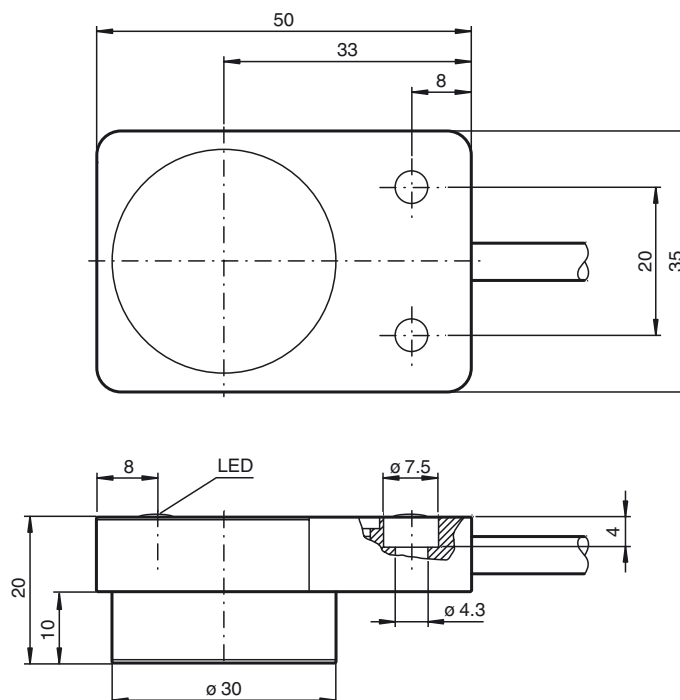
Compliance with standards and directives

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

E1 Type approval	10R-04
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Dimensions





Electrical Connection

