



CE



### 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	$U_d$	$\leq 1.5$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	$\leq 10$ $\mu$ A
No-load supply current	$I_0$	$\leq 10$ mA
Time delay before availability	$t_v$	$\leq 300$ ms
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>		1156 a
Mission Time (T <sub>M</sub> )		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		cabl PUR , 2 m
Core cross-section		0.75 mm <sup>2</sup>
Housing material		anodized aluminum
Sensing face		PBT
Degree of protection		IP67 / IP69K
Tightening torque, housing screws		$\leq 1.8$ Nm

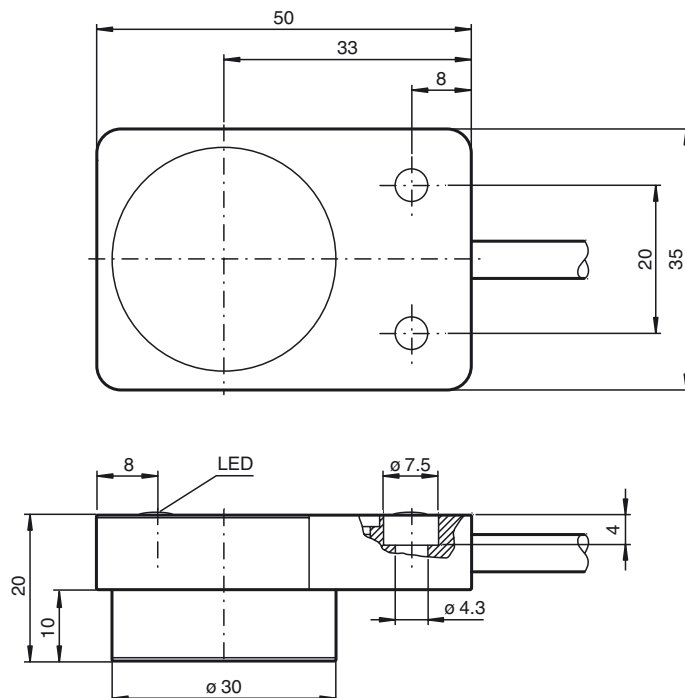
### Compliance with standards and directives

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

