

# Inductive sensor

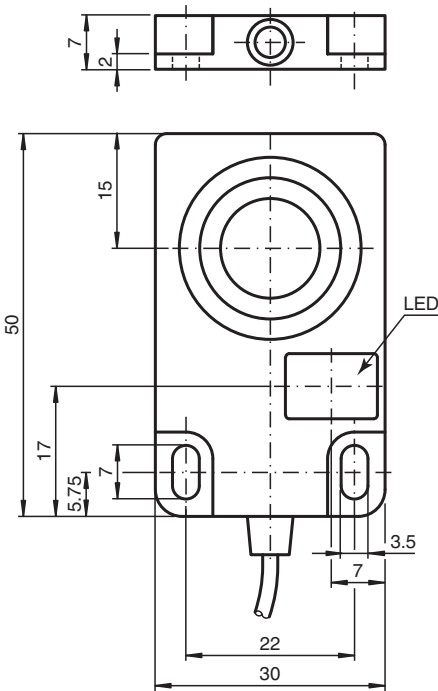
## NBB10-F17-E2



- 10 mm flush
- 3-wire DC



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	10 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 8.1 mm
Actual operating distance	$s_r$	9 ... 11 mm typ. 10 mm
Reduction factor $r_{AI}$		0.36
Reduction factor $r_{Cu}$		0.31

Release date: 2024-12-10 Date of issue: 2024-12-10 Filename: 296085\_eng.pdf

## Technical Data

Reduction factor $r_{304}$		0.67
Output type		3-wire
<b>Nominal ratings</b>		
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	1 ... 10 % typ. 6 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2.8$ V
Operating current	$I_L$	0 ... 100 mA
No-load supply current	$I_0$	10 mA
Time delay before availability	$t_v$	$\leq 1$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1881 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		PMMA
Sensing face		PMMA
Degree of protection		IP67
Cable		
Wire end ferrules		yes
Cable diameter		3 mm - 0.2 mm
Bending radius		$> 12 \times$ cable diameter
Material		PUR
Color		black
Number of cores		3
Core cross section		0.14 mm <sup>2</sup>
Length	$L$	2 m
Dimensions		
Height		30 mm
Width		50 mm
Length		7 mm
Tightening torque		0.5 Nm ... 0.6 Nm

## Connection

