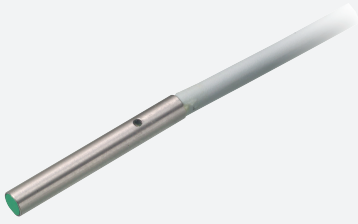


# Inductive sensor

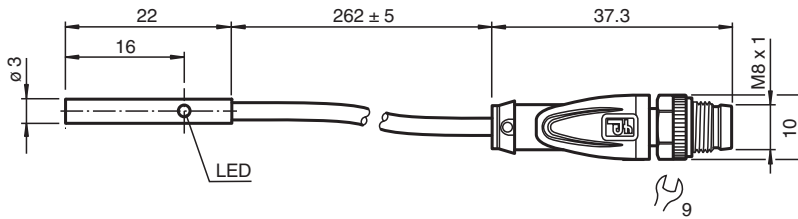
## NBB1-3M22-E2-0,3M-V3



- 1 mm flush
- Miniature design
- Cable with M8 plug



### Dimensions



### Technical Data

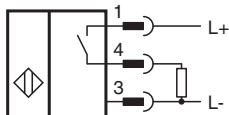
General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	1 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 0.81 mm
Reduction factor $r_{Al}$		0.4
Reduction factor $r_{Cu}$		0.29
Reduction factor $r_{304}$		0.76
Reduction factor $r_{Brass}$		0.46
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 700 Hz
Hysteresis	$H$	typ. 5%
Reverse polarity protection		reverse polarity protected

Release date: 2025-02-24 Date of issue: 2025-02-24 Filename: 224128\_eng.pdf

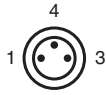
## Technical Data

Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3 \text{ V}$
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.1 mA typ. at 25 °C
No-load supply current	$I_0$	$\leq 10 \text{ mA}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1340 a
Mission Time (T <sub>M</sub> )		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 $\leq 36 \text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		fixed cable with plug
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PC
Degree of protection		IP67
Connector		
Threading		M8 x 1
Tightening torque		$\leq 0.4 \text{ Nm}$
Number of pins		3
Cable		
Cable diameter		2.6 mm $\pm$ 0.1 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		grey
Number of cores		3
Core cross section		0.055 mm <sup>2</sup>
Length	L	0.3 m
Mass		12 g
<b>Dimensions</b>		
Length		22 mm
Diameter		3 mm

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

## Mounting

