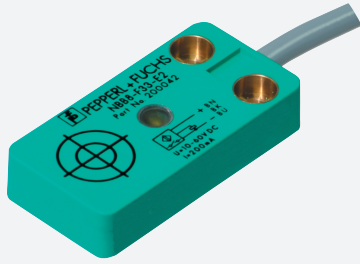


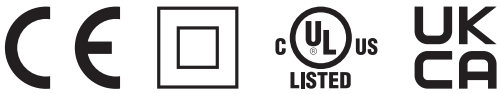
# Inductive sensor

## NAB8-F33-I

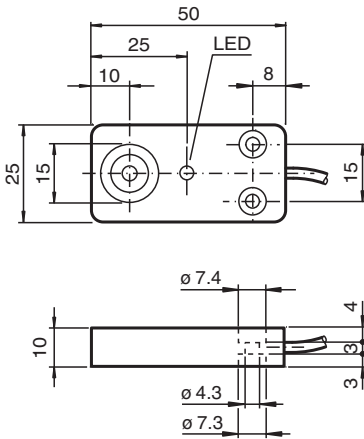


- Inductive analog sensor
- Output 4 mA ... 20 mA
- Measuring range 0 ... 8 mm
- Flush mounting

Inductive distance sensor with analog current output



### Dimensions



### Technical Data

#### General specifications

Output type	Analog current output
Installation	flush
Output polarity	DC
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 24 mm x 24 mm x 1 mm
Measuring range	0 ... 8 mm
Output type	3-wire

#### Nominal ratings

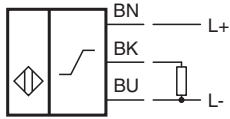
Operating voltage	$U_B$	15 ... 30 V
Reverse polarity protection		reverse polarity protected
Short-circuit protection		current limited
Linearity error		$\pm 3$ % of full-scale value
Temperature drift		$\pm 10$ % of full-scale value
Repeat accuracy		$\pm 1$ % of full-scale value
Recovery time		$\leq 50$ ms
No-load supply current	$I_0$	12 mA

Release date: 2025-06-06 Date of issue: 2025-06-06 Filename: 70145063\_eng.pdf

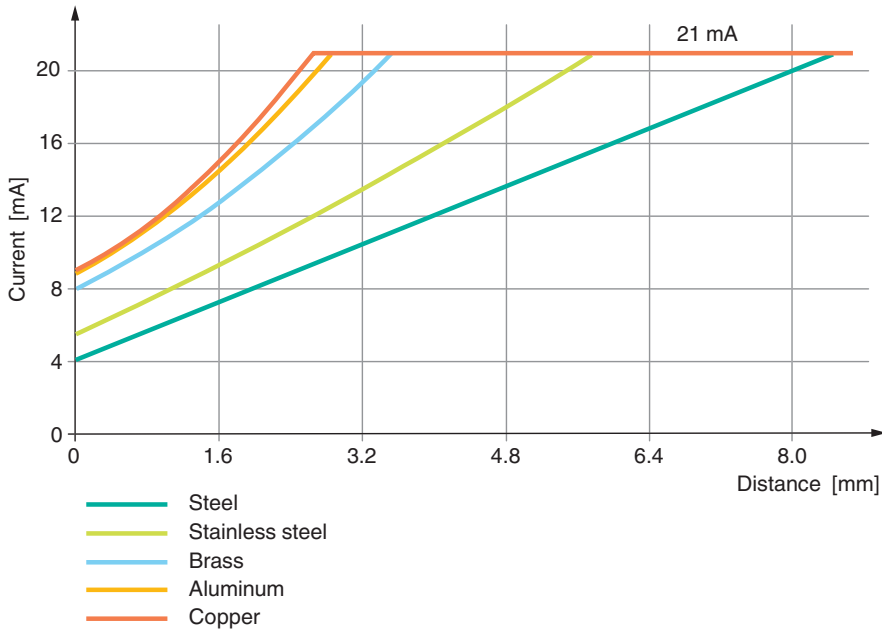
## Technical Data

Status indicator		LED, yellow permanently on: damping element within measuring range slowly flashing (2 Hz): damping element outside measuring range fast flashing (10 Hz): fault state
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		929 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Analog output</b>		
Output type		4 ... 20 mA
Slope of output characteristic		2 mA / mm
Load resistor		≤ 500 Ω
Settling time		≤ 100 ms
<b>Conformity</b>		
PWIS conformity		VDMA 24364-C1/T100°C-W
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
Protection class		II
Rated insulation voltage	U <sub>i</sub>	30 V
Rated impulse withstand voltage	U <sub>imp</sub>	500 V
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤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		PBT
Sensing face		PBT
Degree of protection		IP65 / IP67
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm ± 0.15 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm <sup>2</sup>
Length	L	2 m
Mass		80 g
Dimensions		
Height		10 mm
Width		25 mm
Length		50 mm
Tightening torque		≤ 5 Nm

**Connection**



**Characteristic Curve**



Release date: 2025-06-06 Date of issue: 2025-06-06 Filename: 70145063\_eng.pdf