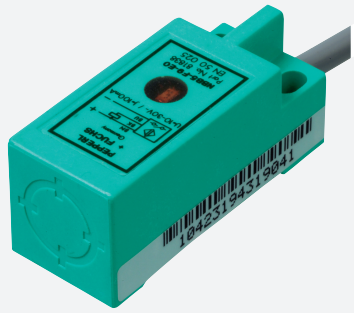
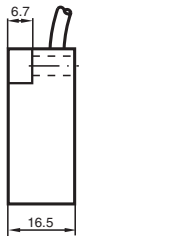


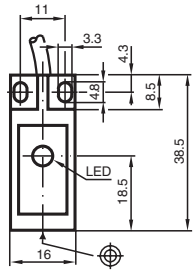
Inductive sensor

NBB5-F9-E0

- 5 mm flush
- 3-wire DC

Dimensions





Technical Data

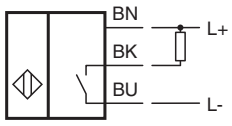
General specifications		
Switching function		Normally open (NO)
Output type		NPN
Rated operating distance	s_n	5 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.05 mm
Reduction factor r_{Al}		0.3
Reduction factor r_{Cu}		0.2
Reduction factor r_{304}		0.6
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 500 Hz

Release date: 2025-02-27 Date of issue: 2025-02-27 Filename: 081838_eng.pdf

Technical Data

Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 150 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA at 25 °C
No-load supply current	I_0	≤ 15 mA
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		3170 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Wire end ferrules		yes
Cable diameter		3.5 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		grey
Number of cores		3
Core cross section		0.14 mm^2
Length	L	2 m
Dimensions		
Height		16.5 mm
Width		16 mm
Length		38.5 mm

Connection



Release date: 2025-02-27 Date of issue: 2025-02-27 Filename: 081838_eng.pdf