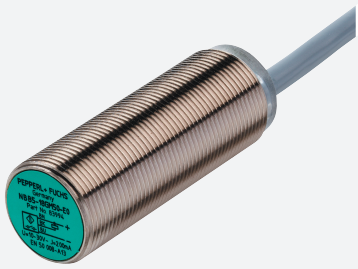


Inductive sensor

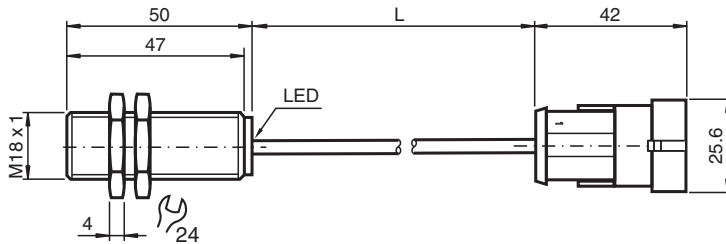
NBB8-18GM50-E2-M-Y266288



- Basic series
- 8 mm flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C
- E1-Type approval
- Raised EMC resistance 100 V/m



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 6.48 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.7
Output type		3-wire

Nominal ratings

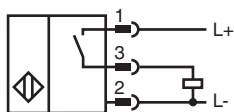
Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 400 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2.5 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_o	≤ 10 mA
Time delay before availability	t_v	≤ 60 ms
Switching state indicator		all direction LED, yellow

Release date: 2025-05-20 Date of issue: 2025-05-20 Filename: 266288_eng.pdf

Technical Data

Functional safety related parameters		
MTTF _d		2070 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
E1 Type approval		10R-04
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		fixed cable with plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Connector		
Number of pins		3
Connection assembly		AMP housing 282105-1 AMP crimp 282109-1 AMP sealing 281934-2
Cable		
Cable diameter		6 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		black
Number of cores		3
Core cross section		0.75 mm ²
Length	L	0.6 m
Dimensions		
Length		50 mm
Diameter		18 mm

Connection



Mounting

Emitted interference and interference immunity in accordance with motor vehicle directive 2006/28/EG (e1 Type approval)
Interference immunity in accordance with DIN ISO 11452-2: 100 V/m
Frequency band 20 MHz up to 2 GHz

Mains-borne interference in accordance with ISO 7637-2: Pulse 1 2a 2b 3a 3b 4 5
Severity level III III III III III III IV
Failure criterion C A C A A A C

EN 61000-4-2: CD: 8 kV / AD: 15 kV
Severity level IV IV

EN 61000-4-3: 30 V/m (80...2500 MHz)
Severity level IV

EN 61000-4-4: 2 kV
Severity level III

EN 61000-4-6: 10 V (0.15...80 MHz)
Severity level III

EN 55011: Class A