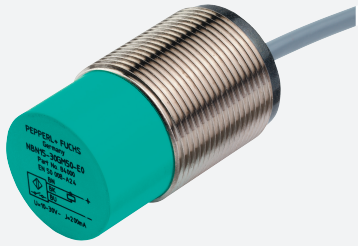


Inductive sensor

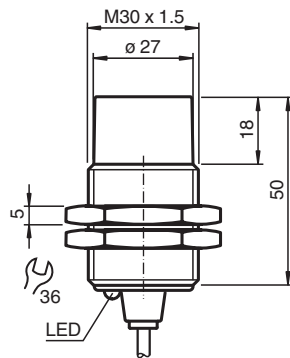
NBN25-30GM50-E1-M1



- 25 mm non-flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C
- With increased sealing, protection class
IP68 / IP69K
- E1-Type approval



Dimensions



Technical Data

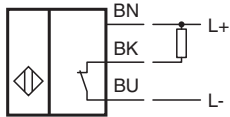
General specifications		
Switching function		Normally closed (NC)
Output type		NPN
Rated operating distance	s_n	25 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 20.25 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 75 mm x 75 mm x 1 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.5
Output type		3-wire
Nominal ratings		
Installation conditions		
A		28 mm
B		40 mm

Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 293454-0051_eng.pdf

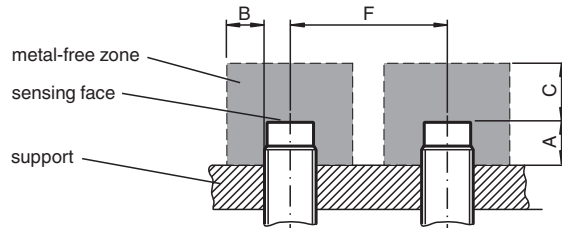
Technical Data

C		75 mm
F		120 mm
Operating voltage	U _B	7 ... 30 V
Switching frequency	f	0 ... 450 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U _d	≤ 2 V
Operating current	I _L	0 ... 200 mA
Off-state current	I _r	0 ... 0.5 mA typ. 4 μA at 25 °C
No-load supply current	I ₀	≤ 10 mA
Time delay before availability	t _v	≤ 100 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1494 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, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V
E1 Type approval		10R-04
Ambient conditions		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cable
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm ± 0.1 mm
Bending radius		> 10 x cable diameter
Material		PUR
Color		black
Number of cores		3
Core cross section		0.34 mm ²
Length	L	2 m
Mass		135 g
Dimensions		
Length		50 mm
Diameter		30 mm
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Installation



Technical Features

Mains-borne interference in accordance with ISO 7637-2:

Pulse	1	2a	2b	3a	3b	4
Severity level	III	III	III	III	III	III
Failure criterion	A	A	C	A	A	C

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

EN 61000-4-3: 36 V/m (80...2500 MHz)
Severity level IV

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

EN 61000-4-6: 30 V (0.01...80 MHz)
Severity level III

EN 55011: Class A