

Inductive sensor

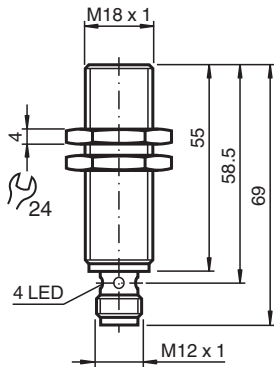
NBB5-18GM50-E2-T-V1



- Extended temperature range
- 5 mm flush



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	5 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.05 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.4
Output type		3-wire

Nominal ratings

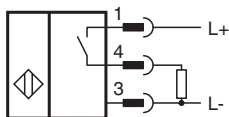
Installation conditions		
A		10 mm
B		11 mm
F		30 mm
Operating voltage	U_B	10 ... 30 V

Release date: 2025-03-12 Date of issue: 2025-03-12 Filename: 236488_eng.pdf

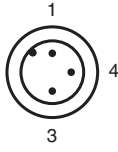
Technical Data

Switching frequency	f	0 ... 800 Hz
Hysteresis	H	0.04 ... 1.15 mm
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	≤ 2.5 V
Repeat accuracy	R	0.15 mm
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0.01 mA
No-load supply current	I_0	≤ 7 mA
Time delay before availability	t_v	≤ 40 ms
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1935 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		
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		3
Mass		50 g
Dimensions		
Length		69 mm
Diameter		18 mm

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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