



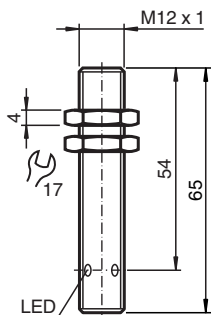
Inductive sensor

NBB2-12GM50-E2-T-V1

- 2 mm flush
- Extended operating voltage range
- Extended temperature range



Dimensions



Technical Data

General specifications

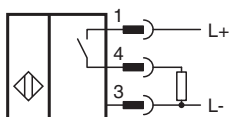
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor r_{Al}		0.35
Reduction factor r_{Cu}		0.2
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.4
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 65 V
Switching frequency	f	0 ... 1200 Hz
Hysteresis	H	0.02 ... 0.44
Reverse polarity protection		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes

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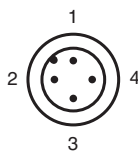
Technical Data

Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	$\leq 2.5 \text{ V}$
Repeat accuracy	R	0.1 mm
Operating current	I_L	0 ... 300 mA
Off-state current	I_r	0.01 mA
No-load supply current	I_0	$\leq 10 \text{ mA}$
Time delay before availability	t_v	$\leq 40 \text{ ms}$
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1510 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		4-pin, M12 x 1 connector
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Mass		20 g
Dimensions		
Length		65 mm
Diameter		12 mm

Connection



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
2		WH	(white)
3		BU	(blue)
4		BK	(black)