

Inductive sensor

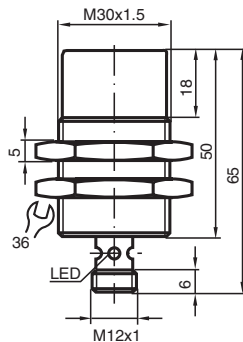
NBN20-30GM50-EI-V1-M1



- 20 mm non-flush
- Extended temperature range
-40 ... +85 °C
- Digital current output
- E1-Type approval



Dimensions



Technical Data

General specifications			
Output type			Digital current output
Rated operating distance	s_n		20 mm
Installation			non-flush
Output polarity			DC
Assured operating distance	s_a		0 ... 16.2 mm
Actuating element			mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 60 mm x 60 mm x 1 mm
Reduction factor r_{Al}			0.45
Reduction factor r_{Cu}			0.4
Reduction factor r_{304}			0.7
Reduction factor r_{Brass}			0.45
Output type			3-wire
Nominal ratings			
Operating voltage	U_B		9 ... 30 V DC
Switching frequency	f		0 ... 1000 Hz
Hysteresis	H		2 ... 15 %

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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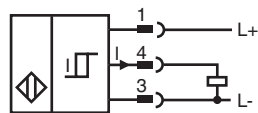
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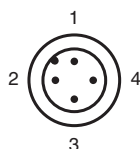
Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Temperature drift		≤ 10 %
Time delay before availability	t _v	≤ 5 ms
Load resistor		100 ... 250 Ohm
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1545 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Digital output		
Output value		object detected: 10 mA ± 1 mA object not detected: 5 mA ± 1 mA
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
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		Connector plug M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Mass		135 g
Dimensions		
Length		65 mm
Diameter		30 mm
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Connection Assignment



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Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

Characteristic Curve

