

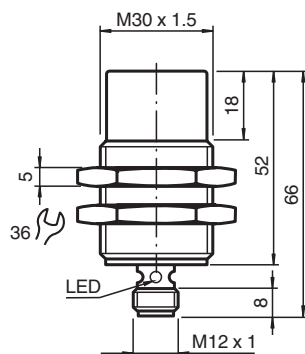


Inductive sensor NBN25-30GM50-E0-V1-M

- 25 mm non-flush
- Extended temperature range
-40 ... +85 °C
- E1-Type approval
- Increased noise immunity 100 V/m
- With increased sealing, protection class
IP68 / IP69K
- Highly shock and vibration resistant



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
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
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.45
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
C		75 mm

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

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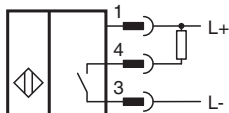
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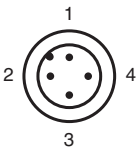
Technical Data

F	120 mm
Operating voltage	U_B 5 ... 60 V
Switching frequency	f 0 ... 200 Hz
Hysteresis	H typ. 5%
Reverse polarity protection	reverse polarity protected
Short-circuit protection	pulsing
Inductive overvoltage protection	yes
Surge suppression	yes
Voltage drop	U_d ≤ 2 V
Rated insulation voltage	U_{BIS} 60 V
Operating current	I_L 0 ... 200 mA
Off-state current	I_r 0 ... 0.5 mA typ. 6 μ A at 25 °C
No-load supply current	I_0 ≤ 7 mA
Time delay before availability	t_v ≤ 220 ms
Switching state indicator	Multihole-LED, yellow
Functional safety related parameters	
MTTF _d	830.5 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
CSA approval	cCSAus Listed, General Purpose, Class 2 Power Source
CCC approval	Certified by China Compulsory Certification (CCC)
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 , 3-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP68 / IP69K
Mass	94 g
Dimensions	
Length	66 mm
Diameter	30 mm

Connection



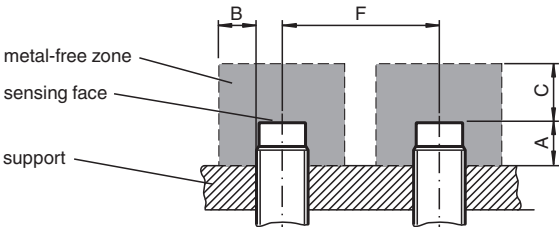
Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Installation



Technical Features

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	III
Failure criterion	C	A	C	A	A	A	B

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 (0.01...80 MHz)
Severity level	III
EN 55011:	Class A