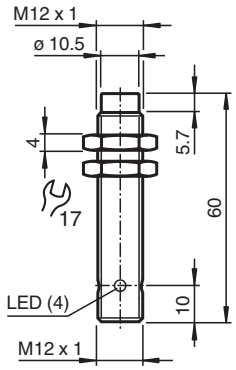


Inductive sensor

NEN10-12GM50-E2-V1

- Increased operating distance
- 10 mm non-flush

Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	10 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 8.1 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 30 mm x 30 mm x 1 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.4
Reduction factor r_{304}		0.75
Reduction factor r_{Brass}		0.45
Output type		3-wire
Nominal ratings		
Installation conditions		
A		in steel 1.0037 (St37): 10 mm
B		12 mm
C		30 mm
F		42 mm

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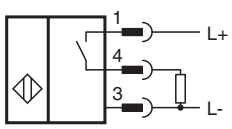
Technical Data

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 600 Hz
Hysteresis	H	0.06 ... 1 mm
Reverse polarity protection		yes
Short-circuit protection		pulsing
Overload resistance		yes
Wire breakage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	≤ 2 V
Repeat accuracy	R	0.3 mm
Operating current	I_L	0 ... 200 mA , above 70°C max. 150 mA
Off-state current	I_r	≤ 10 µA
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 50 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1740 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
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 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		IP67
Mass		20 g
Dimensions		
Length		60 mm
Diameter		12 mm
Tightening torque		≤ 10 Nm

Connection



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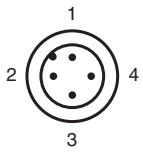
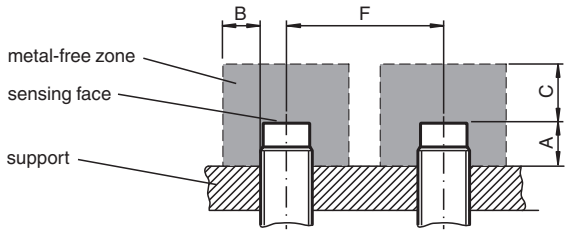
Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Installation



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