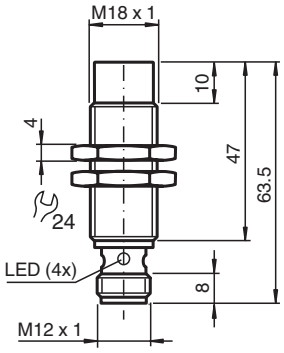
Inductive sensor

NEN20-18GM50-E1-V1

- Increased operating distance
- 20 mm non-flush

Dimensions



Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NPN
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}		0.35
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.45
Output type		3-wire
Nominal ratings		
Installation conditions		
A		in steel 1.0037 (St37): 20 mm
B		30 mm
C		60 mm
F		78 mm
Operating voltage	U_B	10 ... 30 V

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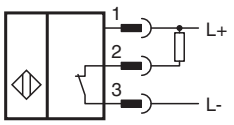
Technical Data

Switching frequency	f	0 ... 200 Hz
Hysteresis	H	0.1 ... 2 mm
Reverse polarity protection		yes
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 V
Repeat accuracy	R	1 mm
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	≤ 10 µA
No-load supply current	I_0	≤ 11 mA
Time delay before availability	t_v	≤ 50 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
$MTTF_d$		1960 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 , 3-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Mass		30 g
Tightening torque, fastening screws		max. 20 Nm
Dimensions		
Length		69 mm
Diameter		18 mm

Connection



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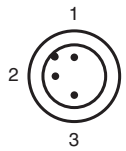
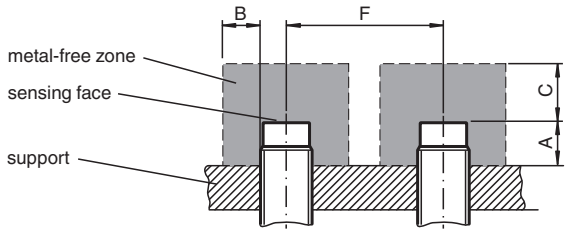
Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)

Installation



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