



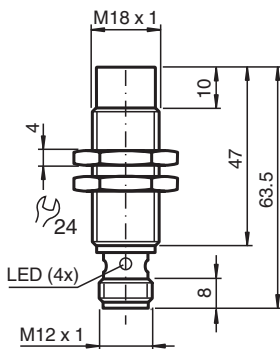
Inductive sensor

NEN20-18GM50-E2-V1

- Increased operating distance
- 20 mm non-flush



Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
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

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

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 μ A
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		1940 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

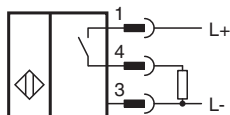
Ambient conditions

Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

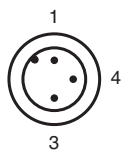
Mechanical specifications

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



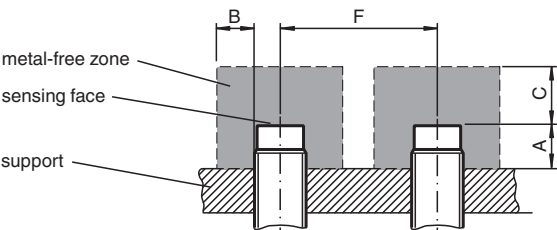
Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Installation



Release date: 2024-05-28 Date of issue: 2024-06-07 Filename: 231740_eng.pdf