

Model Number

NEB6-12GM50-E2-V1

Features

- **Increased operating distance**
- **6 mm flush**

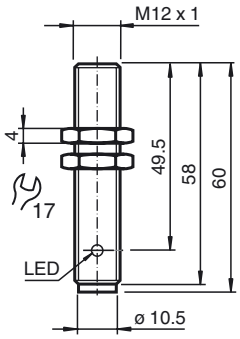
Accessories

BF 12
Mounting flange, 12 mm
V1-G
Female connector, M12, 4-pin, field attachable
V1-W
Female connector, M12, 4-pin, field attachable
V1-G-2M-PUR
Female cordset, M12, 4-pin, PUR cable
V1-W-2M-PUR
Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications		
Switching element function		PNP NO
Rated operating distance	s_n	6 mm
Installation		quasi flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.8 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm
Reduction factor r_{Al}		0.28
Reduction factor r_{Cu}		0.2
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.35
Nominal ratings		
Installation conditions		
A		in steel 1.0037 (St37): 2.4 mm in other metal: 1.2 mm
B		12 mm
C		18 mm
F		24 mm
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	0.06 ... 1.2 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 ≤ 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 %
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Mass		20 g
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V

Dimensions



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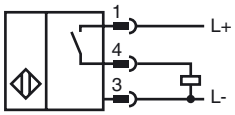
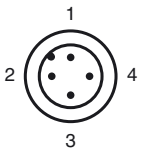
Electrical Connection



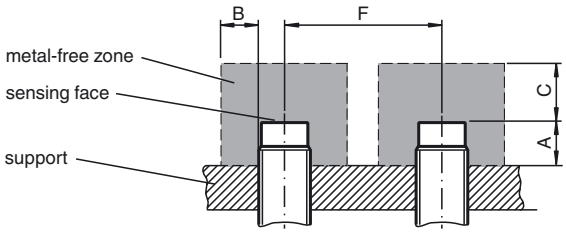
Pinout



Wire colors in accordance with EN 60947-5-2

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

Installation Conditions



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Refer to “General Notes Relating to Pepperl+Fuchs Product Information”.
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