



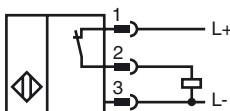
Model Number

NEN20-18GM50-E3-V1

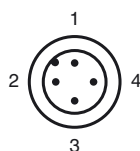
Features

- Increased operating distance
- 20 mm non-flush

Connection



Pinout



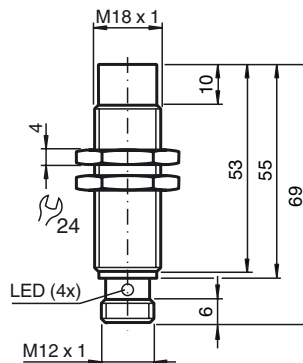
Wire colors in accordance with EN 60947-5-2

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

Accessories

- BF 18**
Mounting flange, 18 mm
- V1-G**
4-pin, M12 female field-attachable connector
- V1-W**
4-pin, M12 female field-attachable connector
- V1-G-2M-PUR**
Cable socket, M12, 4-pin, PUR cable
- V1-W-2M-PUR**
Cable socket, M12, 4-pin, PUR cable
- EXG-18**
Quick mounting bracket with dead stop

Dimensions



Technical Data

General specifications

Switching element function	PNP	NC
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

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
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		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
Indication of the switching state		LED, yellow

Functional safety related parameters

MTTF _d	2650 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	Device connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	30 g
Tightening torque, fastening screws	max. 20 Nm

Compliance with standards and directives

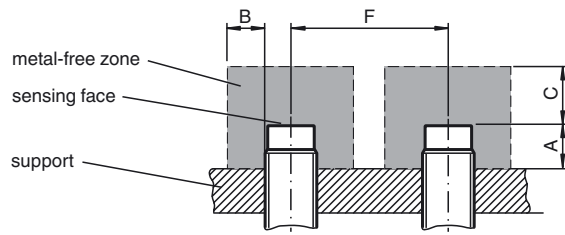
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

Approvals and certificates

CCC approval	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.
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Installation conditions



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