



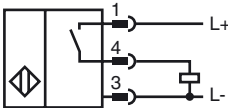
Model Number

NBB2-12GM60-E2-V1

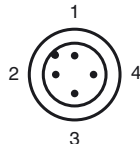
Features

- 2 mm 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 12

Mounting flange, 12 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

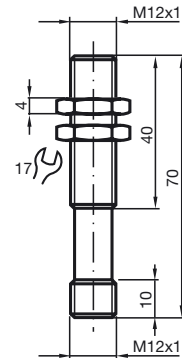
V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

EXG-12

Quick mounting bracket with dead stop

Dimensions



Technical Data

General specifications

Switching element function	PNP	NO
Rated operating distance	s_n	2 mm
Installation	flush	
Output polarity	DC	
Assured operating distance	s_a	0 ... 1.62 mm
Reduction factor r_{AI}	0.3	
Reduction factor r_{Cu}	0.2	
Reduction factor r_{304}	0.7	

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 1500 Hz
Reverse polarity protected	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 17 mA
Indication of the switching state	without	

Functional safety related parameters

MTTF _d	1870 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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Mechanical specifications

Connection type	connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67

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
CSA approval	cCSAus Listed, General Purpose
CCC approval	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.