



Model Number

NBB4-12GM50-E3-V1

Features

- **Basic series**
- **4 mm flush**
- **Increased operating distance**

Accessories

V1-G

Female connector, M12, 4-pin, field attachable

BF 12

Mounting flange, 12 mm

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

EXG-12

Quick mounting bracket with dead stop

Technical Data

General specifications

Switching function	Normally closed (NC)
Output type	PNP
Rated operating distance	s_n 4 mm
Installation	flush
Output polarity	DC
Assured operating distance	s_a 0 ... 3.24 mm
Reduction factor r_{AI}	0.45
Reduction factor r_{CU}	0.35
Reduction factor r_{304}	0.7
Output type	3-wire

Nominal ratings

Operating voltage	U_B 10 ... 30 V
Switching frequency	f 0 ... 800 Hz
Hysteresis	H typ. 5%
Reverse polarity protection	reverse polarity protected
Short-circuit protection	pulsing
Voltage drop	U_d ≤ 3 V
Design data	
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 ≤ 15 mA
Time delay before availability	t_v ≤ 5 ms
Switching state indicator	Multihole-LED, yellow

Functional safety related parameters

MTTF _d	990 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 plug M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67

General information

Scope of delivery	2 self locking nuts in scope of delivery
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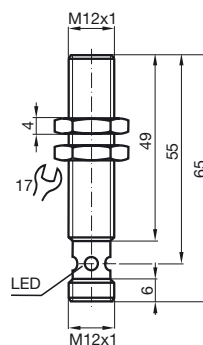
Compliance with standards and directives

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

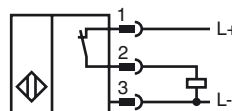
Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Dimensions

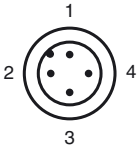


Electrical Connection





Pinout



Wire colors in accordance with EN 60947-5-2

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