



Model Number

NBB4-12GM50-E2-V1

Features

- 4 mm flush
- Increased operating distance
- Extended temperature range

Accessories

BF 12

Mounting flange, 12 mm

EXG-12

Quick mounting bracket with dead stop

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 function	Normally open (NO)
Output type	PNP
Rated operating distance	s_n 4 mm
Installation	flush
Output polarity	DC
Assured operating distance	s_a 0 ... 3.24 mm (-25 ... 70 °C (-13 ... 158 °F)) 0 ... 3.04 mm (-40 ... -25 °C (-40 ... -13 °F))
Reduction factor r_{Al}	0.39
Reduction factor r_{Cu}	0.35
Reduction factor r_{304}	0.75
Reduction factor r_{Brass}	0.49
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 \leq 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 \leq 15 mA
Time delay before availability	t_v \leq 5 ms
Switching state indicator	Multihole-LED, yellow

Functional safety related parameters

MTTF _d	1820 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-40 ... 70 °C (-40 ... 158 °F)
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Mechanical specifications

Connection type	Connector 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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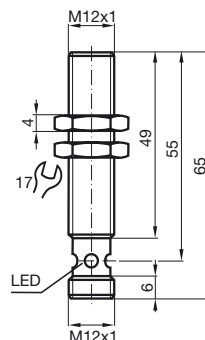
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

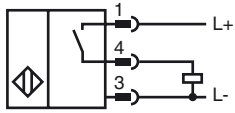
Approvals and certificates

EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated \leq 36 V

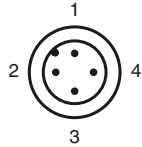
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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



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