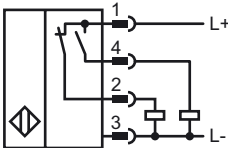
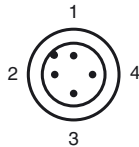


**Model Number**

NBB2-12GM50-A2-V1

Features

- 2 mm embeddable

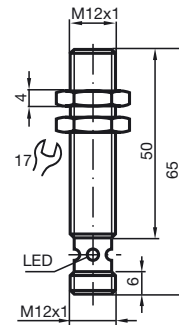
Connection**Pinout**

Wire colors in accordance with EN 60947-5-2

1	BN
2	WH
3	BU
4	BK

Accessories

- BF 12**
Mounting flange, 12 mm
- V1-G**
Field attachable female cordset
- V1-W**
Field attachable female cordset
- 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/NC
Rated operating distance	s_n	2 mm
Installation		embeddable
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Reduction factor r_{AI}		0.25
Reduction factor r_{Cu}		0.15
Reduction factor r_{V2A}		0.66

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 1000 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	≤ 20 mA
Indication of the switching state		LED, yellow

Functional safety related parameters

MTTF _d	1460 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	Device connector M12 x 1 , 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	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	Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval.