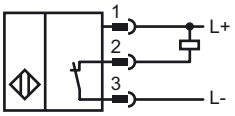
Model Number

NBB4-12GM50-E1-V1

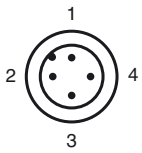
Features

- **Increased operating distance**

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

EXG-12
Quick mounting bracket with dead stop

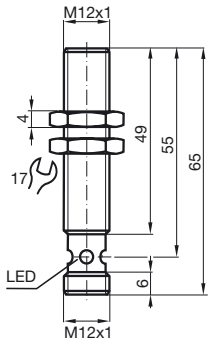
V1-G
4-pin, M12 female field-attachable connector

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

Dimensions



Technical Data

General specifications		
Switching element function		NPN NC
Rated operating distance	s_n	4 mm
Installation		embeddable
Output polarity		DC
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}		0.39
Reduction factor r_{Cu}		0.35
Reduction factor r_{303}		0.75
Reduction factor r_{Brass}		0.49
Nominal ratings		
Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	typ. 5 %
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 µA at 25 °C
No-load supply current	I_0	≤ 15 mA
Indication of the switching state		Multihole-LED, yellow
Functional safety related parameters		
$MTTF_d$		1600 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		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
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.

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