

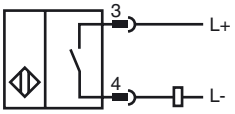
Model Number

NBB2-12GM40-Z0-V1

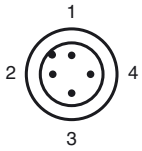
Features

- **2 mm flush**
- **Extended temperature range**
- **2-wire DC**

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

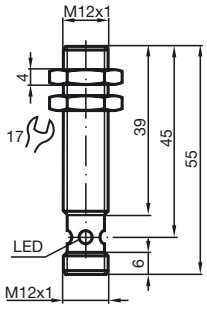
V1-G
4-pin, M12 female field-attachable connector

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		DC NO
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm (-25 ... 70 °C (-13 ... 158 °F)) 0 ... 1.52 mm (-40 ... -25 °C (-40 ... -13 °F))
Reduction factor r_{Al}		0.18
Reduction factor r_{Cu}		0.12
Reduction factor r_{304}		0.67
Nominal ratings		
Operating voltage	U_B	5 ... 60 V
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protected		tolerant
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 5 V
Operating current	I_L	2 ... 100 mA
Lowest operating current	I_m	2 mA
Off-state current	I_r	0 ... 0.5 mA typ.
Indication of the switching state		Multihole-LED, yellow
Functional safety related parameters		
$MTTF_d$		2250 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Connection type		Device 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		Certified by China Compulsory Certification (CCC)

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24772 KLR-C02-2,2-2,0-K70 NBB4-12GM50-A2-V1 WCS3-MH1 NBB1-4GM22-E2 NBB2-8GM40-E0-V1 OBR2500-12GM40-E5 NBB0.8-4M25-E0 NBB5-18GM50-A0 OQT150-R101-2EP-IO-V31 BF18 OBD450-18GK40A-E2 114642 MH4-2057 NBB8-18GM50-E0 OBR5000-18GK40A-E2 NBB0.8-5GM25-E2 NBB2-12GM50-A2-V1 NBB5-18GM50-E2 S1SD-1AI-1U.1 UB800-18GM40-I-V1 OQT150-R100-2EP-IO-V31-L 34441 CCN15-30GS60-E2-V1 GLV30-8-2500/47/73C NBB2-12GM50-E2 OBR12M-R100-2EP-IO-V31-L UB2000-F42-E6-V15 UBE800-F77-SE2-V31 134143