



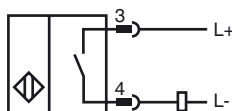
Model Number

NBB2-12GM40-Z0-V1

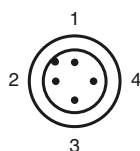
Features

- 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

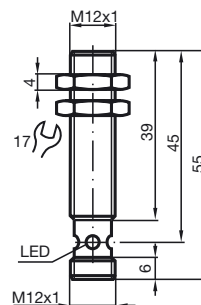
V1-G-2M-PUR

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_{AI}	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)
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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

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)