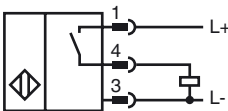## Dimensions

Model Number

NBB2-8GM40-E2-V1
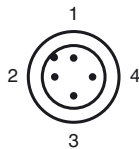
Features

- **2 mm embeddable**
- **Increased operating distance**

Connection
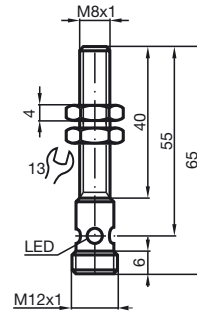

Pinout

Wire colors in accordance with EN 60947-5-2

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

Technical Data

General specifications

Switching element function		PNP	NO
Rated operating distance	s_n	2 mm	
Installation		embeddable	
Output polarity		DC	
Assured operating distance	s_a	0 ... 1.62 mm	
Reduction factor r_{Al}		0.45	
Reduction factor r_{Cu}		0.35	
Reduction factor r_{304}		0.75	

Nominal ratings

Operating voltage	U_B	10 ... 30 V
Switching frequency	f	0 ... 1500 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 ... 100 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 µA
No-load supply current	I_0	≤ 15 mA
Indication of the switching state		Multihole-LED, yellow

Functional safety related parameters

$MTTF_d$	2730 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	Device connector M12 x 1 , 4-pin
Housing material	brass, nickel-plated
Sensing face	LCP
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	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Accessories

BF 8
Mounting flange, 8 mm
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
EXG-08
Quick mounting bracket with dead stop

Subject to modifications without notice

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1