



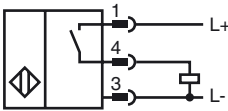
Model Number

NBB2-12GM50-E2-T-V1

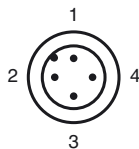
Features

- 2 mm flush
- Extended operating voltage range
- Extended temperature range

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

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

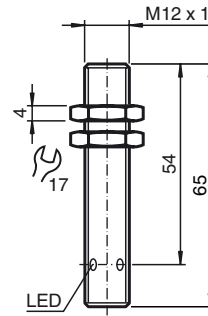
V1-G-2M-PUR

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	PNP	NO
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor r_{Al}		0.35
Reduction factor r_{Cu}		0.2
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.4

Nominal ratings

Operating voltage	U_B	10 ... 65 V
Switching frequency	f	0 ... 1200 Hz
Hysteresis	H	0.02 ... 0.44
Reverse polarity protection		yes
Short-circuit protection		yes
Overload resistance		yes
Wire breakage protection		yes
Inductive overvoltage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	U_d	≤ 2.5 V
Repeat accuracy		0.1 mm
Operating current	I_L	0 ... 300 mA
Off-state current	I_r	0.01 mA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 40 ms
Indication of the switching state		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	1510 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)

Mechanical specifications

Connection type	connector M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	20 g

Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007