



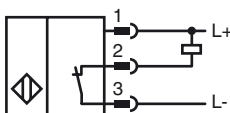
Model Number

NEB3-6,5M45-E1-V1

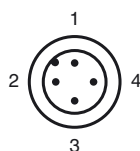
Features

- Increased operating distance
- 3 mm virtually flush

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 6,5

Mounting flange, 6.5 mm

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

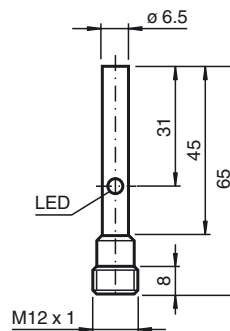
V1-G-2M-PUR

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		NPN	NC
Rated operating distance	s_n	3 mm	
Installation		virtually flush	
Output polarity		DC	
Assured operating distance	s_a	0 ... 2.43 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 9 mm x 9 mm x 1 mm	
Reduction factor r_{Al}		0.5	
Reduction factor r_{Cu}		0.3	
Reduction factor r_{304}		0.8	
Reduction factor r_{Brass}		0.5	

Nominal ratings

Installation conditions	
A	in steel 1.0037 (St37): 1 mm
B	6 mm
C	9 mm
F	16 mm
Operating voltage	U_B 10 ... 30 V DC
Switching frequency	f 0 ... 1500 Hz
Hysteresis	H 0.03 ... 0.3 mm
Reverse polarity protection	yes
Short-circuit protection	pulsing
Overload resistance	yes
Wire breakage protection	yes
Surge suppression	yes
Ripple	10 %
Voltage drop	U_d \leq 2 V
Repeat accuracy	0.15 mm
Operating current	I_L 0 ... 200 mA, above 50°C \leq 150 mA
Off-state current	I_r \leq 10 μ A
No-load supply current	I_0 \leq 15 mA
Time delay before availability	t_v \leq 50 ms
Indication of the switching state	LED, yellow

Functional safety related parameters

MTTF _d	1740 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	Device 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

Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source
CCC approval	Products with a maximum operating voltage of \leq 36 V do not bear a CCC marking because they do not require approval.

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Installation conditions

