



Model Number

NEB3-6,5M45-E1-V3

Features

- Increased operating distance
- 3 mm quasi flush
- Extended temperature range
-40 ... +85 °C

Accessories

BF 6,5

Mounting flange, 6.5 mm

V3-GM

Female connector, M8, 3-pin, field attachable

V3-WM

Female connector, M8, 3-pin, field attachable

V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NPN
Rated operating distance	s_n	3 mm
Installation		quasi 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}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.45
Output type		3-wire

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	5 ... 30 V
Switching frequency	f	0 ... 3500 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 1.5 V
Operating current	I_L	0 ... 100 mA
Off-state current	I_r	0 ... 0.2 mA
No-load supply current	I_0	≤ 10 mA
Time delay before availability	t_v	≤ 100 ms
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	960 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

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

Mechanical specifications

Connection type	Connector plug M8 x 1, 3-pin
Housing material	brass, nickel-plated
Sensing face	LCP
Degree of protection	IP67
Mass	8 g

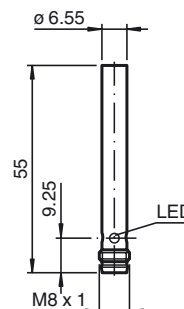
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

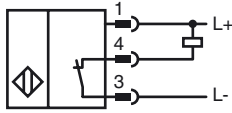
Approvals and certificates

UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

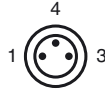
Dimensions



Electrical Connection



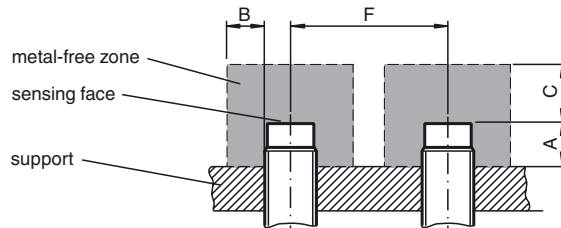
Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Installation Conditions



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