



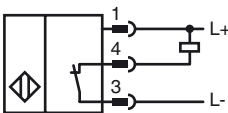
### Model Number

NEB3-8GM45-E1-V3

### Features

- Increased operating distance
- 3 mm virtually flush

### Connection



### Pinout



Wire colors in accordance with EN 60947-5-2

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

### Accessories

#### BF 8

Mounting flange, 8 mm

#### V3-GM

Female connector, M8, 3-pin, field attachable

#### V3-WM

Female connector, M8, 3-pin, field attachable

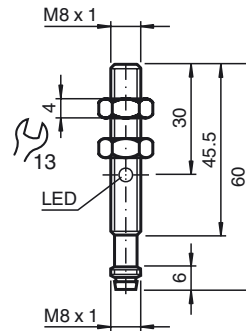
#### V3-GM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

#### V3-WM-2M-PUR

Cable socket, M8, 3-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 ... 2.4 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 $\mu$ 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 <sub>d</sub>	1740 a
Mission Time (T <sub>M</sub> )	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 M8 x 1, 3-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.

Installation conditions

