



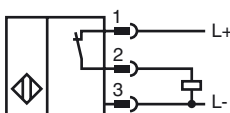
**Model Number**

NEB3-8GM45-E3-V1

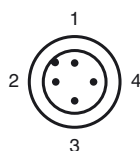
**Features**

- Increased operating distance
- 3 mm virtually flush

**Connection**



**Pinout**



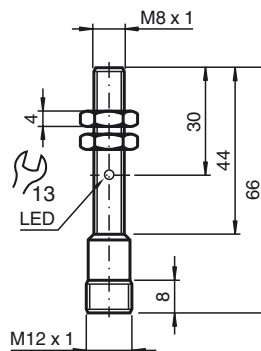
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- BF 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

**Dimensions**



**Technical Data**

**General specifications**

Switching element function	PNP	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**

<b>Installation conditions</b>		
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 M12 x 1, 4-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	20 g

**Compliance with standards and directives**

<b>Standard conformity</b>	
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

