



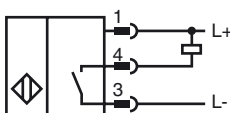
**Model Number**

NEB3-8GM45-E0-V3

**Features**

- Increased operating distance
- 3 mm virtually flush

**Connection**



**Pinout**



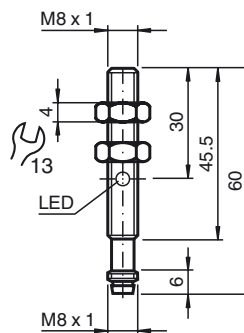
Wire colors in accordance with EN 60947-5-2

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**

<b>General specifications</b>			
Switching element function		NPN	NO
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	
<b>Nominal ratings</b>			
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	
<b>Functional safety related parameters</b>			
MTTF <sub>d</sub>		1740 a	
Mission Time (T <sub>M</sub> )		20 a	
Diagnostic Coverage (DC)		0 %	
<b>Ambient conditions</b>			
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)	
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)	
<b>Mechanical specifications</b>			
Connection type		Device connector M8 x 1, 3-pin	
Housing material		brass, nickel-plated	
Sensing face		PBT	
Protection degree		IP67	
Mass		20 g	
<b>Compliance with standards and directives</b>			
Standard conformity			
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007	
<b>Approvals and certificates</b>			
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

