



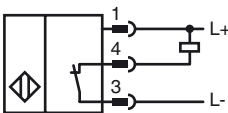
**Model Number**

NEB3-6,5M50-E1-V3

**Features**

- Increased operating distance
- 3 mm virtually flush

**Connection**



**Pinout**



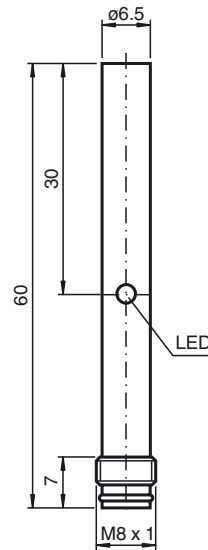
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- BF 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-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 ... 2.43 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**

<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	$I_o$	$\leq 15$ 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**

<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

