



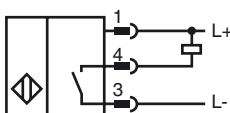
**Model Number**

NEB3-6,5M50-E0-V3

**Features**

- Increased operating distance
- 3 mm virtually flush

**Connection**



**Pinout**



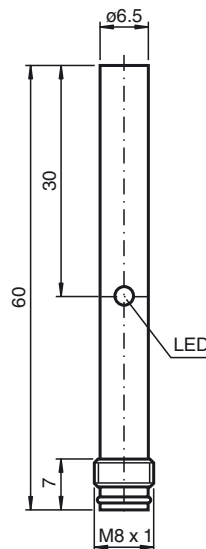
Wire colors in accordance with EN 60947-5-2

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

**Accessories**

- BF 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 NO
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	
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	$I_o$ $\leq$ 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	
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.

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Installation conditions

