



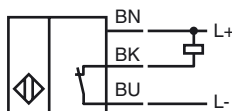
### Model Number

NEN6-6,5M45-E1

### Features

- Increased operating distance
- 6 mm non-flush

### Connection

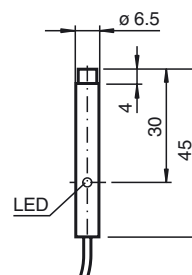


### Accessories

#### BF 6,5

Mounting flange, 6.5 mm

## Dimensions



## Technical Data

### General specifications

Switching element function		NPN	NC
Rated operating distance	$s_n$	6 mm	
Installation		non-flush	
Output polarity		DC	
Assured operating distance	$s_a$	0 ... 4.86 mm	
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm	
Reduction factor $r_{Al}$		0.5	
Reduction factor $r_{Cu}$		0.45	
Reduction factor $r_{304}$		0.8	
Reduction factor $r_{Brass}$		0.55	

### Nominal ratings

Installation conditions			
A		in steel 1.0037 (St37): 8 mm	
B		12 mm	
C		18 mm	
F		28 mm	
Operating voltage	$U_B$	10 ... 30 V DC	
Switching frequency	$f$	0 ... 750 Hz	
Hysteresis	H	0.06 ... 0.6 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		0.3 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	cable PUR, 2 m
Core cross-section	0.14 mm <sup>2</sup>
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	50 g
Tightening torque, fastening screws	max. 2 Nm

### 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

