



Model Number

NEN6-6,5M45-E0

Features

- Increased operating distance
- 6 mm non-flush
- Extended temperature range
- Triple switching distance

Accessories

BF 6,5

Mounting flange, 6.5 mm

Technical Data

General specifications

| | | | |
|------------------------------|-------|---|----|
| Switching element function | | NPN | NO |
| 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 | ≤ 2 V | |
| Repeat accuracy | R | 0.3 mm | |
| Operating current | I_L | 0 ... 200 mA, above 50°C ≤ 150 mA | |
| Off-state current | I_r | ≤ 10 μ A | |
| No-load supply current | I_0 | ≤ 15 mA | |
| Time delay before availability | t_v | ≤ 50 ms | |
| Switching state indicator | | LED, yellow | |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1740 a |
| Mission Time (T _M) | 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 ² |
| Housing material | brass, nickel-plated |
| Sensing face | PBT |
| Degree of protection | IP67 |
| Mass | 50 g |
| Tightening torque, fastening screws | max. 2 Nm |

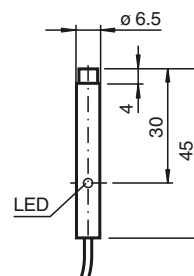
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

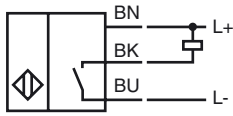
Approvals and certificates

| | |
|----------------|--|
| EAC conformity | TR CU 020/2011 |
| UL approval | cULus Listed, General Purpose, Class 2 Power Source |
| CCC approval | CCC approval / marking not required for products rated ≤ 36 V |

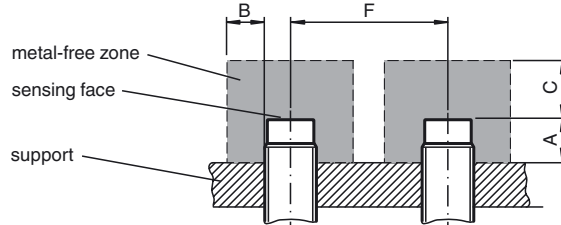
Dimensions



Electrical Connection



Installation Conditions



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