



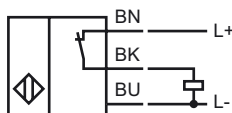
**Model Number**

**NBN8-F1-E3**

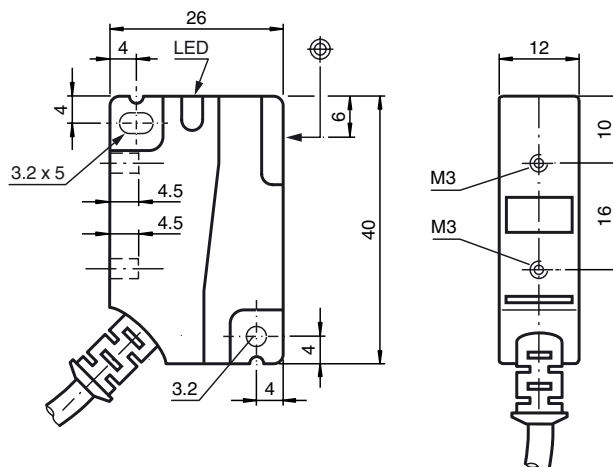
**Features**

- 8 mm non-flush
- 3-wire DC

**Connection**



**Dimensions**



**Technical Data**

General specifications	
Switching element function	PNP NC
Rated operating distance	$s_n$ 8 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 6.48 mm
Reduction factor $r_{Al}$	0.45
Reduction factor $r_{Cu}$	0.45
Reduction factor $r_{304}$	0.7
Reduction factor $r_{Brass}$	0.55
Nominal ratings	
Operating voltage	$U_B$ 10 ... 30 V DC
Switching frequency	$f$ 0 ... 1400 Hz
Hysteresis	$H$ typ. 5%
Reverse polarity protected	reverse polarity protected
Short-circuit protection	pulsing
Voltage drop	$U_d$ $\leq$ 2.5 V
Rated insulation voltage	$U_{BIS}$ 60 V
Operating current	$I_L$ 0 ... 250 mA
Off-state current	$I_r$ 0 ... 0.01 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$ $\leq$ 15 mA
Indication of the switching state	LED, yellow
Functional safety related parameters	
MTTF <sub>d</sub>	1640 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %
Ambient conditions	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications	
Connection type	cable PVC , 2 m
Core cross-section	0.5 mm <sup>2</sup>
Housing material	PA
Sensing face	PA
Protection degree	IP67
Tightening torque, fastening screws	Threading M3 max: 1.1 Nm
Compliance with standards and directives	
Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates	
Protection class	II
Rated insulation voltage	$U_i$ 60 V
Design-impulse-voltage withstand	$U_{imp}$ 800 V
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
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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