



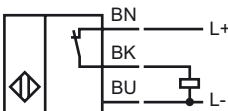
Model Number

NBN8-F1-E3

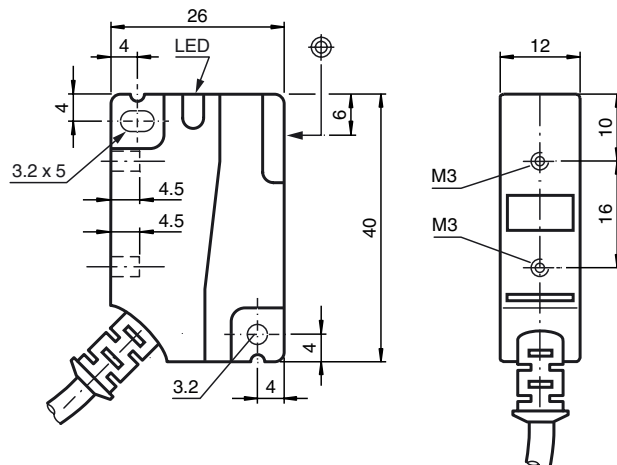
Features

- 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	≤ 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 μ A at 25 °C
No-load supply current	I_0	≤ 15 mA
Indication of the switching state	LED, yellow	

Functional safety related parameters

MTTF _d	1640 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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Mechanical specifications

Connection type	cable PVC , 2 m
Core cross-section	0.5 mm ²
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 ≤ 36 V do not bear a CCC marking because they do not require approval.