



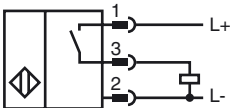
Model Number

NBB5-F33M-E2-Y228177

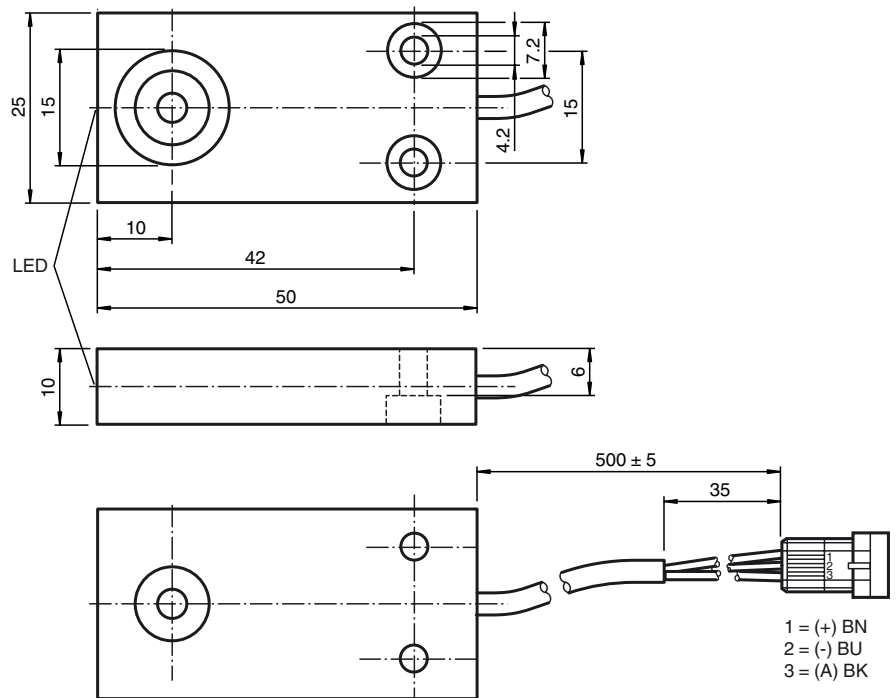
Features

- Basic series
- 5 mm embeddable
- 3-wire DC
- Metal housing

Connection



Dimensions



Technical Data

General specifications

Switching element function	PNP	NO
Rated operating distance	s_n	5 mm
Installation	embeddable	
Output polarity	DC	
Assured operating distance	s_a	0 ... 4.05 mm
Reduction factor r_{A1}	0.3	
Reduction factor r_{Cu}	0.2	
Reduction factor r_{V2A}	0.6	

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protected	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μA
No-load supply current	I_0	≤ 15 mA
Indication of the switching state	LED	

Functional safety related parameters

MTTF _d	1850 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

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

Mechanical specifications

Connection type	PVC cable with AMP connector AMP housing 282105-1 AMP crimp 282404-1 AMP sealing 281934-4
Core cross-section	0.34 mm ²
Housing material	metal
Sensing face	PBT
Protection degree	IP67

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
CSA approval	cCSAus Listed, General Purpose