



Model Number

NBB3-V3-Z5

Features

- 3 mm flush
- 2-wire DC

Technical Data

General specifications

Switching function	Normally closed (NC)
Output type	Two-wire
Rated operating distance	s_n 3 mm
Installation	flush
Output polarity	DC
Assured operating distance	s_a 0 ... 2.4 mm
Actual operating distance	s_r 2.7 ... 3.3 mm typ.
Reduction factor r_{Al}	0.45
Reduction factor r_{Cu}	0.35
Reduction factor r_{304}	0.8
Reduction factor r_{Brass}	0.5
Output type	2-wire

Nominal ratings

Operating voltage	U_B	5 ... 60 V DC
Switching frequency	f	0 ... 2000 Hz
Hysteresis	H	typ. 0.2 mm
Reverse polarity protection		reverse polarity protected
Short-circuit protection		no
Inductive overvoltage protection		yes
Voltage drop	U_d	≤ 4 V
Voltage drop at I_L		
Voltage drop $I_L = 10$ mA, switching element on U_d		3.4 ... 3.9 V typ. 3.6 V
Operating current	I_L	4 ... 100 mA
Lowest operating current	I_m	4 mA
Off-state current	I_r	0.4 ... 0.55 mA typ. 0.46 mA
Time delay before availability	t_v	≤ 1 ms
Switching state indicator		LED, yellow

Limit data

Tightening torque, fastening screws	0.4 Nm
-------------------------------------	--------

Functional safety related parameters

MTTF _d	1552 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Standard conformity

EMC in accordance with	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
------------------------	---

Ambient conditions

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

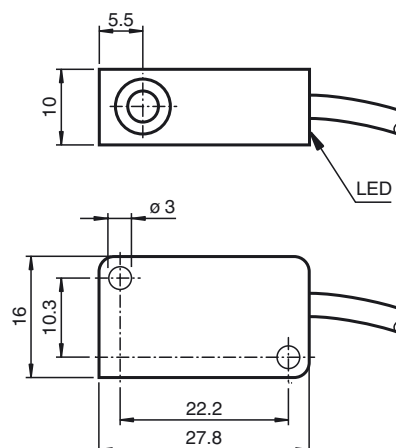
Mechanical specifications

Connection type	cable PVC, 130 mm
Core cross-section	0.14 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Certified by China Compulsory Certification (CCC)

Dimensions



Electrical Connection

