



### Model Number

NBB1,5-F41-E3

### Features

- 1.5 mm flush
- 3-wire DC
- Metal housing

## Technical Data

### General specifications

Switching element function		PNP	NC
Rated operating distance	$s_n$	1.5 mm	
Installation		flush	
Output polarity		switched high	
Assured operating distance	$s_a$	0 ... 1.215 mm	
Reduction factor $r_{Al}$		0.45	
Reduction factor $r_{Cu}$		0.35	
Reduction factor $r_{304}$		0.75	

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC	
Switching frequency	$f$	0 ... 1500 Hz	
Hysteresis	$H$	typ. 3 %	
Reverse polarity protection		reverse polarity protected	
Short-circuit protection		pulsing	
Voltage drop	$U_d$	$\leq 3$ V	
Operating current	$I_L$	0 ... 100 mA	
Off-state current	$I_r$	0 ... 0.5 mA typ.	
No-load supply current	$I_0$	$\leq 15$ mA	
Time delay before availability	$t_v$	$\leq 20$ ms	
Switching state indicator		LED, yellow	

### Functional safety related parameters

MTTF <sub>d</sub>	1750 a
Mission Time (T <sub>M</sub> )	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	0.14 mm <sup>2</sup>
Housing material	brass, nickel-plated
Sensing face	PBT
Protection degree	IP67
Mass	13.5 g

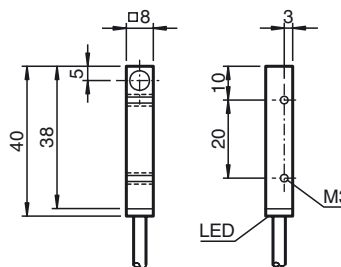
### Compliance with standards and directives

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
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions



## Electrical Connection

