# Inductive sensor NBB1,5-F41-E2

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

## Connection

### BN L+

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## Technical Data

### General specifications
- Switching element function: PNP, NO
- Rated operating distance: $s_n = 1.5$ mm
- Output polarity: DC
- 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 protected
- Short-circuit protection: pulsing
- Voltage drop: $U_d \leq 3$ V
- Operating current: $I_B = 0 ... 100$ mA
- Off-state current: $I_r = 0 ... 0.5$ mA typ.
- No-load supply current: $I_0 \leq 15$ mA
- Indication of the switching state: LED, yellow

### Functional safety related parameters
- MTTFd: 1528 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: cable PVC, 2 m
- Core cross-section: 0.14 mm²
- Housing material: brass, nickel-plated
- Sensing face: PBT
- Protection degree: IP67
- Mass: 13.5 g

### Compliance with standards and directives

### Approvals and certificates
- 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.