Inductive sensor NBN4-F29-E2-C

Technical Data

General specifications
- Switching element function: PNP NO
- Rated operating distance: $s_n = 4$ mm
- Installation: non-flush
- Output polarity: DC
- Assured operating distance: $s_a = 0 \ldots 3.24$ mm
- Reduction factor $f_{\text{no}} = 0.4$
- Reduction factor $f_{\text{oa}} = 0.3$
- Reduction factor $f_{\text{oa}} = 0.7$

Nominal ratings
- Operating voltage: $U_B = 4.75 \ldots 30$ V DC
- Switching frequency: $f = 0 \ldots 1000$ Hz
- Hysteresis: $H$ typ. 5 %
- Reverse polarity protection: reverse polarity protected
- Short-circuit protection: pulsing
- Voltage drop: $U_d \leq 3$ V
- Operating current: $I_l = 0 \ldots 100$ mA
- Off-state current: $I_{\text{off}} = 0 \ldots 0.5$ mA typ.
- No-load supply current: $I_0 \leq 10$ mA
- Time delay before availability: $t_{\text{v}} \leq 5$ ms
- Constant magnetic field: B = 200 mT
- Alternating magnetic field: B = 200 mT
- Switching state indicator: LED, yellow

Functional safety related parameters
- MTTFd = 1680 a
- Mission Time (T_M): 20 a
- Diagnostic Coverage (DC): 0 %

Ambient conditions
- Ambient temperature: -25 ... 70 °C (-13 ... 158 °F)
- Storage temperature: -40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications
- Connection type: cable PVC, 2 m
- Core cross-section: 0.14 mm²
- Housing material: PPS
- Sensing face: PPS
- Degree of protection: IP67

Compliance with standards and directives
- Standard conformity:
  - 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 ≤36 V

Dimensions

Electrical Connection

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Features
- 4 mm non-flush
- For use in direct- and alternating-field welding systems