



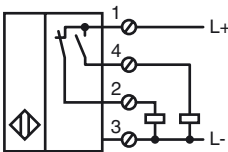
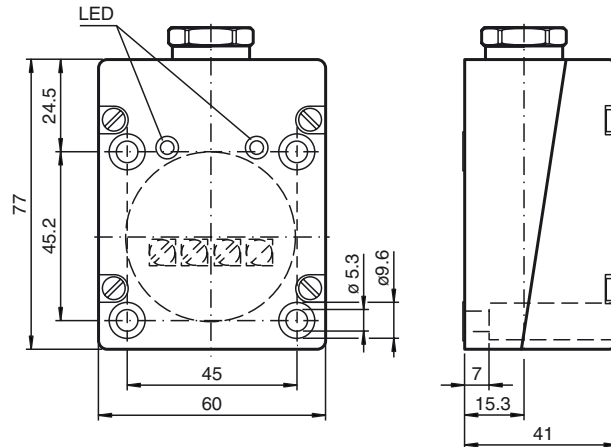
CE

Model Number

NBN30-FPS-A2

Features

- 30 mm non-flush
- 4-wire DC

Connection**Dimensions****Technical Data****General specifications**

| | | |
|------------------------------|-------|---|
| Switching element function | PNP | NO/NC |
| Rated operating distance | s_n | 30 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 24.3 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 90 mm x 90 mm x 1 mm |
| Reduction factor r_{Al} | | 0.2 |
| Reduction factor r_{Cu} | | 0.1 |
| Reduction factor r_{304} | | 0.5 |
| Reduction factor r_{Brass} | | 0.2 |

Nominal ratings

| | | |
|-----------------------------------|-------|------------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Switching frequency | f | 0 ... 50 Hz |
| Hysteresis | H | 0.05 ... 7.26 mm |
| Reverse polarity protection | | yes |
| Short-circuit protection | | yes |
| Overload resistance | | yes |
| Wire breakage protection | | yes |
| Inductive overvoltage protection | | yes |
| Surge suppression | | yes |
| Ripple | | 10 % |
| Voltage drop | U_d | ≤ 2.5 V |
| Repeat accuracy | | 0.75 mm |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | ≤ 0.01 mA |
| No-load supply current | I_0 | ≤ 20 mA |
| Time delay before availability | t_v | ≤ 100 ms |
| Operating voltage display | | LED, green |
| Indication of the switching state | | LED, yellow |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 1430 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |

Mechanical specifications

| | |
|--------------------|---------------------------|
| Connection type | screw terminals |
| Core cross-section | up to 2.5 mm ² |
| Housing material | PBT |
| Sensing face | PBT |
| Housing base | PBT |
| Protection degree | IP65 |
| Mass | 270 g |

Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |
|--------------|--|

Installation hint

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.

