



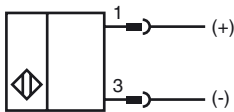
Model Number

NBB50-FP-B3B-P1-V1

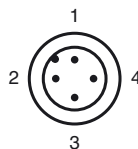
Features

- Basic series
- 50 mm flush
- A/B slave with extended addressing possibility for up to 62 slaves
- NO/NC selectable
- On/Off delay (disconnectable)
- Oscillator monitoring

Connection



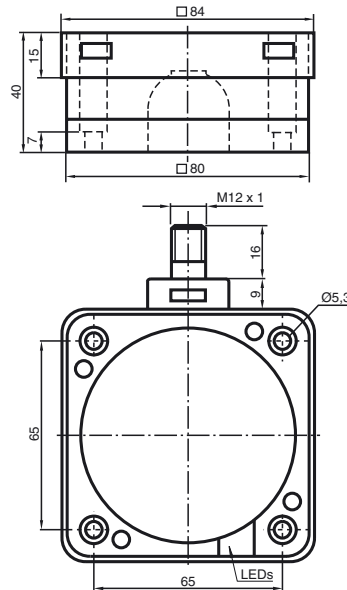
Pinout



Wire colors in accordance with EN 60947-5-2

| | | |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue) |
| 4 | BK | (black) |

Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|--------------------|
| Switching element function | | NO/NC programmable |
| Rated operating distance | s_n | 50 mm |
| Installation | | flush |
| Output polarity | | AS-Interface |
| Assured operating distance | s_a | 0 ... 40.5 mm |
| Reduction factor r_{Al} | | 0.38 |
| Reduction factor r_{Cu} | | 0.35 |
| Reduction factor r_{304} | | 0.83 |

Nominal ratings

| | | |
|-----------------------------------|-------|-------------------------------------|
| Operating voltage | U_B | 26.5 ... 31.9 V via AS-i bus system |
| Switching frequency | f | 0 ... 80 Hz |
| Hysteresis | H | 1 ... 15 typ. 5 % |
| Reverse polarity protected | | reverse polarity protected |
| Operating voltage display | | LED green |
| Indication of the switching state | | LED yellow |
| Fault indication | | LED red |

Ambient conditions

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

Mechanical specifications

| | |
|-------------------|--------------------------|
| Connection type | connector M12 x 1, 4-pin |
| Housing material | PBT |
| Sensing face | PBT |
| Housing base | PBT |
| Protection degree | IP67 |

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

Release date: 2012-05-04 09:33 Date of issue: 2012-05-04 122881_eng.xml

Programming Instructions

Adress 00 preset, alterable
via Busmaster
or programming units
IO-Code 0
ID-Code A
ID1-Code 7
ID2-Code E

Data bit

| Bit | Function |
|-----|-----------------------|
| D0 | Switching state |
| D1 | not used |
| D2 | Oscillator monitoring |
| D3 | not used |

Parameter bit

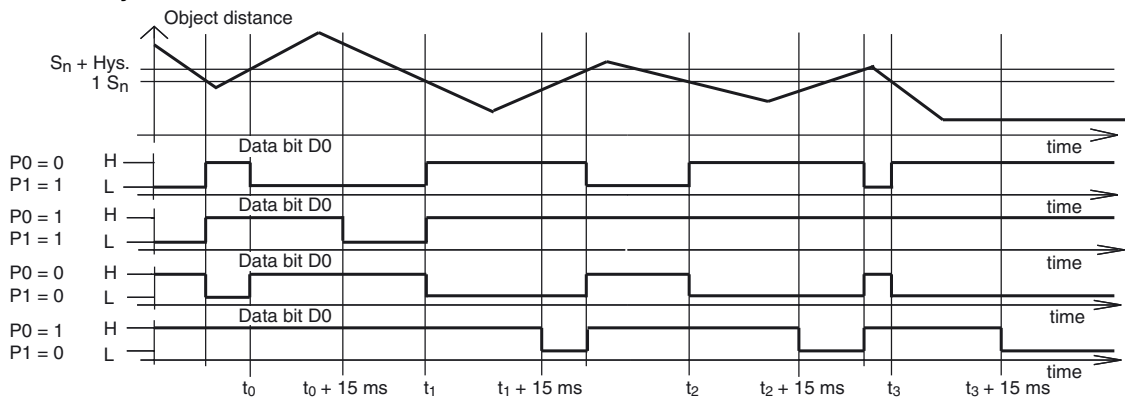
| Bit | Function |
|-----|--|
| P0 | ON / Off delay activated* / deactivated |
| P1 | Switching element function NO* / NC |
| P2 | not used |
| P3 | not used |

*Standard setting

Indication depending on the operation mode

| Symptoms | red LED (FAULT) | Data bit D2 |
|-------------------|-----------------|-------------|
| normal operation | off | 1 |
| Oscillator defect | flashing | 0 |
| no communication | on | 1 |

On/off delay:



The on/off delay is preset and switched on (P0=1). On delay approx.15 ms, when P0=1 and NO function (P1=1). Off delay approx.15 ms, when P0=1 and NC function (P1=0).

Release date: 2012-05-04 09:33 Date of issue: 2012-05-04 122881_eng.xml