

## Inductive sensor

IB-2020-BBOA



## Product characteristics

|                 |      |                 |
|-----------------|------|-----------------|
| Output function |      | normally closed |
| Sensing range   | [mm] | 20              |
| Housing         |      | cylindrical     |
| Dimensions      | [mm] | Ø 34 / L = 82   |

## Electrical data

|                             |     |                |
|-----------------------------|-----|----------------|
| Operating voltage           | [V] | 20...250 AC/DC |
| Protection class            |     | II             |
| Reverse polarity protection |     | no             |

## Outputs

|                                                 |      |                                                 |
|-------------------------------------------------|------|-------------------------------------------------|
| Output function                                 |      | normally closed                                 |
| Max. voltage drop switching output DC           | [V]  | 6                                               |
| Max. voltage drop switching output AC           | [V]  | 6.5                                             |
| Minimum load current                            | [mA] | 5                                               |
| Max. leakage current                            | [mA] | 2.5 (250 V AC) / 1.3 (110 V AC) / 0.8 (24 V DC) |
| Permanent current rating of switching output AC | [mA] | 250; (350 (...50 °C))                           |
| Permanent current rating of switching output DC | [mA] | 100                                             |
| Short-time current rating of switching output   | [mA] | 2200; (20 ms / 0,5 Hz)                          |
| Switching frequency AC                          | [Hz] | 25                                              |
| Switching frequency DC                          | [Hz] | 50                                              |
| Short-circuit proof                             |      | no                                              |
| Overload protection                             |      | no                                              |

## Detection zone

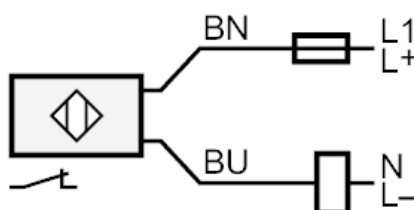
|                       |      |           |
|-----------------------|------|-----------|
| Sensing range         | [mm] | 20        |
| Real sensing range Sr | [mm] | 20 ± 10 % |
| Operating distance    | [mm] | 0...16.2  |



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| Accuracy / deviations         |                                                                               |                 |
|-------------------------------|-------------------------------------------------------------------------------|-----------------|
| Correction factor             | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.4 / copper: 0.3   |                 |
| Hysteresis                    | [% of Sr]                                                                     | 1...15          |
| Switch point drift            | [% of Sr]                                                                     | -10...10        |
| Operating conditions          |                                                                               |                 |
| Ambient temperature           | [°C]                                                                          | -25...80        |
| Protection                    | IP 67                                                                         |                 |
| Tests / approvals             |                                                                               |                 |
| EMC                           | EN 60947-5-2                                                                  |                 |
|                               | EN 55011                                                                      | class B         |
| MTTF                          | [years]                                                                       | 610             |
| Mechanical data               |                                                                               |                 |
| Weight                        | [g]                                                                           | 257.5           |
| Housing                       | cylindrical                                                                   |                 |
| Mounting                      | non-flush mountable                                                           |                 |
| Dimensions                    | [mm]                                                                          | Ø 34 / L = 82   |
| Materials                     | PBT                                                                           |                 |
| Displays / operating elements |                                                                               |                 |
| Display                       | switching status                                                              | 1 x LED, yellow |
| Electrical connection         |                                                                               |                 |
| Required protection           | miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting                      |                 |
| Accessories                   |                                                                               |                 |
| Items supplied                | Mounting clamps: 1                                                            |                 |
| Remarks                       |                                                                               |                 |
| Remarks                       | Recommendation: Check the safe functioning of the unit after a short circuit. |                 |
| Pack quantity                 | 1 pcs.                                                                        |                 |
| Electrical connection         |                                                                               |                 |
| Cable: 2 m, PVC; 2 x 0.5 mm²  |                                                                               |                 |
| Connection                    |                                                                               |                 |



Note miniature fuse to IEC60127-2 sheet 1 ≤ 2 A fast acting

Core colours :

BN = brown  
BU = blue