

# II0097



## Inductive sensor

IIA2015-BBOA



### Product characteristics

|                 |      |                    |
|-----------------|------|--------------------|
| Output function |      | normally closed    |
| Sensing range   | [mm] | 15                 |
| Housing         |      | Threaded type      |
| Dimensions      | [mm] | M30 x 1.5 / L = 81 |

### 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                                              |

### Monitoring range

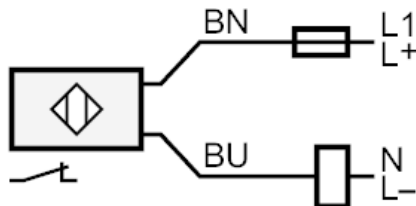
|                       |      |           |
|-----------------------|------|-----------|
| Sensing range         | [mm] | 15        |
| Real sensing range Sr | [mm] | 15 ± 10 % |
| Operating distance    | [mm] | 0...12.1  |



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| Accuracy / deviations        |                                        |                                                                             |          |
|------------------------------|----------------------------------------|-----------------------------------------------------------------------------|----------|
| Correction factor            |                                        | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.3 / copper: 0.2  |          |
| 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]                                | 607                                                                         |          |
| Mechanical data              |                                        |                                                                             |          |
| Weight                       | [g]                                    | 237                                                                         |          |
| Housing                      | Threaded type                          |                                                                             |          |
| Mounting                     | non-flush mountable                    |                                                                             |          |
| Dimensions                   | [mm]                                   | M30 x 1.5 / L = 81                                                          |          |
| Thread designation           | M30 x 1.5                              |                                                                             |          |
| Material                     | brass nickel-plated; sensing face: PBT |                                                                             |          |
| Electrical connection        |                                        |                                                                             |          |
| Required protection          |                                        | miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting                    |          |
| Accessories                  |                                        |                                                                             |          |
| Items supplied               |                                        | lock nuts: 2                                                                |          |
| Remarks                      |                                        |                                                                             |          |
| Remarks                      |                                        | Recommendation: check the unit for reliable function 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 colors :  
BN = brown  
BU = blue