



## Inductive sensor

IA-2010-BBOA



## Product characteristics

|                 |      |                 |
|-----------------|------|-----------------|
| Output function |      | normally closed |
| Sensing range   | [mm] | 10              |
| Housing         |      | tubular         |
| Dimensions      | [mm] | Ø 20 / L = 77   |

## 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] | 70                                              |
| Short-circuit proof                             |      | no                                              |
| Overload protection                             |      | no                                              |

## Monitoring range

|                       |      |           |
|-----------------------|------|-----------|
| Sensing range         | [mm] | 10        |
| Real sensing range Sr | [mm] | 10 ± 10 % |
| Operating distance    | [mm] | 0...8.1   |

## Accuracy / deviations

|                   |  |                                                                            |
|-------------------|--|----------------------------------------------------------------------------|
| Correction factor |  | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.3 / copper: 0.2 |
|-------------------|--|----------------------------------------------------------------------------|

# IA0027



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|                    |           |          |
|--------------------|-----------|----------|
| 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]      | 603     |

### Mechanical data

|            |      |                     |
|------------|------|---------------------|
| Weight     | [g]  | 152.6               |
| Housing    |      | tubular             |
| Mounting   |      | non-flush mountable |
| Dimensions | [mm] | Ø 20 / L = 77       |
| Material   |      | 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 clamp: 1 |
|----------------|-------------------|

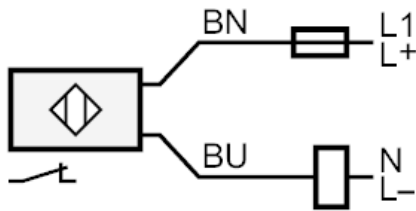
### Remarks

|               |                                                                             |
|---------------|-----------------------------------------------------------------------------|
| 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 mm<sup>2</sup>

### Connection



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

Core colors :

BN = brown  
BU = blue