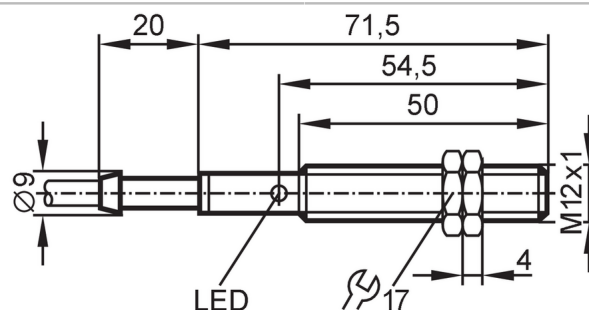




## Inductive sensor

IFA2002-BBOW



## Product characteristics

|                 |      |                    |
|-----------------|------|--------------------|
| Output function |      | normally closed    |
| Sensing range   | [mm] | 2                  |
| Housing         |      | threaded type      |
| Dimensions      | [mm] | M12 x 1 / L = 71.5 |

## Electrical data

|                             |      |             |
|-----------------------------|------|-------------|
| Frequency AC                | [Hz] | 47...63     |
| Operating voltage           | [V]  | 20...250 AC |
| Protection class            |      | II          |
| Reverse polarity protection |      | no          |

## Outputs

|                                                 |      |                       |
|-------------------------------------------------|------|-----------------------|
| Output function                                 |      | normally closed       |
| Max. voltage drop switching output AC           | [V]  | 8.5                   |
| Minimum load current                            | [mA] | 8                     |
| Max. leakage current                            | [mA] | 2                     |
| Permanent current rating of switching output AC | [mA] | 200; (250 (...50 °C)) |
| Short-time current rating of switching output   | [mA] | 900; (20 ms / 0.5 Hz) |
| Switching frequency AC                          | [Hz] | 25                    |
| Short-circuit proof                             |      | no                    |
| Overload protection                             |      | no                    |

## Detection zone

|                       |      |          |
|-----------------------|------|----------|
| Sensing range         | [mm] | 2        |
| Real sensing range Sr | [mm] | 2 ± 10 % |
| Operating distance    | [mm] | 0...1.6  |

## Accuracy / deviations

|                    |           |                                                                             |
|--------------------|-----------|-----------------------------------------------------------------------------|
| Correction factor  |           | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |
| Hysteresis         | [% of Sr] | 1...15                                                                      |
| Switch point drift | [% of Sr] | -10...10                                                                    |

## Operating conditions

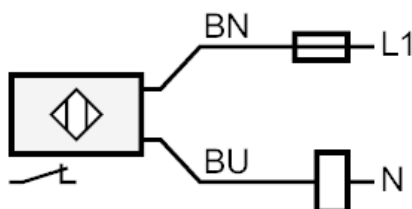
|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...80 |
| Protection          |      | IP 67    |



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| Tests / approvals                        |                  |                                                                                                                                                         |
|------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC                                      | EN 60947-5-2     |                                                                                                                                                         |
|                                          | EN 55011         | class B                                                                                                                                                 |
| MTTF                                     | [years]          | 932                                                                                                                                                     |
| Mechanical data                          |                  |                                                                                                                                                         |
| Weight                                   | [g]              | 115.4                                                                                                                                                   |
| Housing                                  |                  | threaded type                                                                                                                                           |
| Mounting                                 |                  | flush mountable                                                                                                                                         |
| Dimensions                               | [mm]             | M12 x 1 / L = 71.5                                                                                                                                      |
| Thread designation                       |                  | M12 x 1                                                                                                                                                 |
| Materials                                |                  | housing: brass white bronze coated; sensing face: PBT natural; conduit attachment: TPE-E; LED window: PBT natural; lock nuts: brass white bronze coated |
| Tightening torque                        | [Nm]             | A = 4 mm: 3,5 Nm; B: 5 Nm                                                                                                                               |
| Displays / operating elements            |                  |                                                                                                                                                         |
| Display                                  | switching status | 1 x LED, yellow                                                                                                                                         |
| Electrical connection                    |                  |                                                                                                                                                         |
| Required protection                      |                  | miniature fuse to IEC60127-2 sheet 1; $\leq 2$ A; fast acting                                                                                           |
| Accessories                              |                  |                                                                                                                                                         |
| Items supplied                           |                  | lock nuts: 2                                                                                                                                            |
| 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 mm <sup>2</sup> |                  |                                                                                                                                                         |
| Connection                               |                  |                                                                                                                                                         |

Note miniature fuse to IEC60127-2 sheet 1  $\leq 2$  A fast acting

Core colours :

BN =

brown

BU =

blue

# IF0006

## Inductive sensor

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### Diagrams and graphs

#### Installation

