

# IF5188

## Inductive sensor

IFB3002-BPKG



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 2                |
| Housing            | Threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 35 |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | 15; (24 V) |
| Protection class            | II         |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |                    |
|------------------------------------------------------|--------------------|
| Electrical design                                    | PNP                |
| Output function                                      | normally open      |
| Max. voltage drop switching output DC [V]            | 2.5                |
| Permanent current rating of switching output DC [mA] | 150                |
| Switching frequency DC [Hz]                          | 1500               |
| Short-circuit protection                             | yes                |
| Type of short-circuit protection                     | yes (non-latching) |
| Overload protection                                  | yes                |

### Monitoring range

|                               |               |
|-------------------------------|---------------|
| Sensing range [mm]            | 2             |
| Real sensing range $S_r$ [mm] | $2 \pm 10 \%$ |
| Operating distance [mm]       | 0...1.6       |

### Accuracy / deviations

|                                  |                                                                            |
|----------------------------------|----------------------------------------------------------------------------|
| Correction factor                | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.3 / copper: 0.2 |
| Hysteresis [% of $S_r$ ]         | 3...15                                                                     |
| Switch-point drift [% of $S_r$ ] | -10...10                                                                   |

### Operating conditions

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

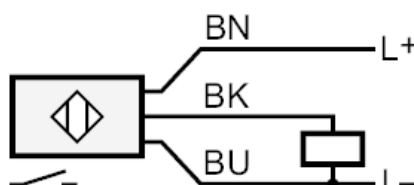
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| Tests / approvals                         |                  |                                             |
|-------------------------------------------|------------------|---------------------------------------------|
| EMC                                       | EN 60947-5-2     |                                             |
|                                           | EN 55011         | class B                                     |
| MTTF                                      | [years]          | 2531                                        |
| Mechanical data                           |                  |                                             |
| Weight                                    | [g]              | 96                                          |
| Housing                                   |                  | Threaded type                               |
| Mounting                                  |                  | flush mountable                             |
| Dimensions                                | [mm]             | M12 x 1 / L = 35                            |
| Thread designation                        |                  | M12 x 1                                     |
| Material                                  |                  | brass white bronze coated; sensing face: PC |
| Displays / operating elements             |                  |                                             |
| Display                                   | Switching status | 1 x LED, yellow                             |
| Accessories                               |                  |                                             |
| Items supplied                            |                  | lock nuts: 2                                |
| Remarks                                   |                  |                                             |
| Pack quantity                             |                  | 1 pcs.                                      |
| Electrical connection                     |                  |                                             |
| Cable: 2 m, PVC; 3 x 0.34 mm <sup>2</sup> |                  |                                             |
| Connection                                |                  |                                             |



BN = Core colors : brown  
BU = blue  
BK = black