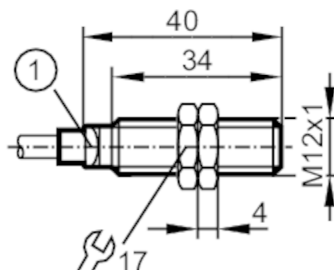


# IFS272



## Inductive sensor

IFB3004BBPKG/5M/PUR



1 LED yellow



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 4                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 40 |

### Application

|                 |  |
|-----------------|--|
| Special feature | Increased sensing range                      |
| Application     | Industrial applications / factory automation |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| Protection class            | III        |
| 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] | 100           |
| Switching frequency DC [Hz]                          | 700           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 4        |
| Real sensing range Sr [mm] | 4 ± 10 % |
| Operating distance [mm]    | 0...3.24 |
| Increased sensing range    | yes      |

### Accuracy / deviations

|                              |   |
|------------------------------|---|
| Correction factor            | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis [% of Sr]         | 3...15  |
| Switch point drift [% of Sr] | -10...10  |

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| Operating conditions          |                           |  |
|-------------------------------|---------------------------|--|
| Ambient temperature           | [°C]                      | -40...85   |
| Protection                    |                           | IP 65; IP 66; IP 67; IP 68; IP 69K   |
| Tests / approvals             |                           |  |
| EMC                           | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD  |
|                               | EN 61000-4-3 HF radiated  | 10 V/m   |
|                               | EN 61000-4-4 Burst        | 2 kV   |
|                               | EN 61000-4-6 HF conducted | 10 V   |
|                               | EN 55011                  | class B  |
| Vibration resistance          | EN 60068-2-6 Fc           | 20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes                         |
| Shock resistance              | EN 60068-2-27 Ea          | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes                           |
| Continuous shock resistance   | EN 60068-2-27             | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes                                    |
| Fast temperature changes      | EN 60068-2-14 Na          | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles   |
| Salt spray test               | EN 60068-2-52 Kb          | severity level 5 (4 test cycles)   |
| MTTF                          | [years]                   | 861  |
| UL approval                   | Ta                        | -25...75 °C  |
|                               | Enclosure type            | Type 1   |
|                               | voltage supply            | Limited Voltage/Current  |
|                               | UL Approval no.           | A002   |
|                               | File number UL            | E174191  |
| Mechanical data               |                           |  |
| Weight                        | [g]                       | 139.8  |
| Housing                       |                           | threaded type  |
| Mounting                      |                           | flush mountable  |
| Dimensions                    | [mm]                      | M12 x 1 / L = 40   |
| Thread designation            |                           | M12 x 1  |
| Materials                     |                           | brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated |
| Displays / operating elements |                           |  |
| Display                       | switching status          | 1 x LED, yellow  |
| Accessories                   |                           |  |
| Accessories (supplied)        |                           | lock nuts: 2   |
| Remarks                       |                           |  |
| Pack quantity                 |                           | 1 pcs.   |

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### Electrical connection

Cable: 5 m, PUR, Ø 4 mm; burning behaviour to ECE R118 rev. 2; 3 x 0.34 mm<sup>2</sup>

### Connection



Core colours :

|      |       |
|------|-------|
| BK = | black |
| BN = | brown |
| BU = | blue  |