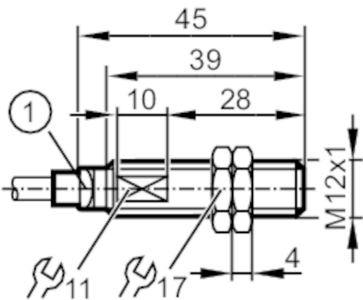




Inductive sensor

IFB2004BBRKG/2M/PUR/UP



1 LED yellow



| Product characteristics                         |      |                                                        |
|-------------------------------------------------|------|--------------------------------------------------------|
| Electrical design                               |      | PNP/NPN                                                |
| Output function                                 |      | normally closed                                        |
| Sensing range                                   | [mm] | 4                                                      |
| Housing                                         |      | threaded type                                          |
| Dimensions                                      | [mm] | M12 x 1 / L = 39                                       |
| Application                                     |      |                                                        |
| Special feature                                 |      | Drag chain suitability; Increased sensing range        |
| Application                                     |      | Industrial applications / factory automation           |
| Electrical data                                 |      |                                                        |
| Operating voltage                               | [V]  | 10...30 DC; ("supply limited voltage / current" to UL) |
| Protection class                                |      | III                                                    |
| Reverse polarity protection                     |      | yes                                                    |
| Outputs                                         |      |                                                        |
| Electrical design                               |      | PNP/NPN                                                |
| Output function                                 |      | normally closed                                        |
| Max. voltage drop switching output DC           | [V]  | 5                                                      |
| Minimum load current                            | [mA] | 2                                                      |
| Max. leakage current                            | [mA] | 0.6                                                    |
| 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                                                    |



## Inductive sensor

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| 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                                                                    |                                                                                  |
| 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, 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 change       | 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)                                                 |
| UL approval                   | Ta                                                                                                         |                                                                             | -25...75 °C                                                                      |
|                               | Enclosure type                                                                                             |                                                                             | Type 1                                                                           |
|                               | power supply                                                                                               |                                                                             | Limited Voltage/Current                                                          |
|                               | UL Approval no.                                                                                            |                                                                             | A007                                                                             |
|                               | File number UL                                                                                             |                                                                             | E174191                                                                          |
| Mechanical data               |                                                                                                            |                                                                             |                                                                                  |
| Weight                        | [g]                                                                                                        | 71.4                                                                        |                                                                                  |
| Housing                       | threaded type                                                                                              |                                                                             |                                                                                  |
| Mounting                      | flush mountable                                                                                            |                                                                             |                                                                                  |
| Dimensions                    | [mm]                                                                                                       | M12 x 1 / L = 39                                                            |                                                                                  |
| Thread designation            | M12 x 1                                                                                                    |                                                                             |                                                                                  |
| Materials                     | brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated |                                                                             |                                                                                  |
| Drag chain suitability        | yes                                                                                                        |                                                                             |                                                                                  |
| Drag chain suitability        | bending radius for flexible use                                                                            | min. 10 x cable diameter                                                    |                                                                                  |
|                               | bending cycles                                                                                             | > 5 Mio.                                                                    |                                                                                  |
| Displays / operating elements |                                                                                                            |                                                                             |                                                                                  |
| Display                       | switching status                                                                                           | 1 x LED, yellow                                                             |                                                                                  |
| Accessories                   |                                                                                                            |                                                                             |                                                                                  |
| Items supplied                | lock nuts: 2                                                                                               |                                                                             |                                                                                  |
|                               | Tooth lock washer: 1, stainless steel                                                                      |                                                                             |                                                                                  |
| Remarks                       |                                                                                                            |                                                                             |                                                                                  |
| Pack quantity                 | 1 pcs.                                                                                                     |                                                                             |                                                                                  |

# IFS724



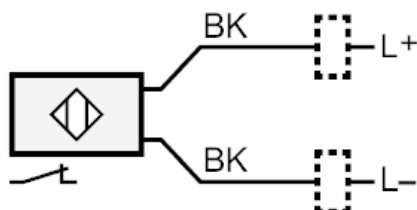
## Inductive sensor

IFB2004BBRKG/2M/PUR/UP

### Electrical connection

Cable: 2 m, PUR; 2 x 0.34 mm<sup>2</sup>

### Connection



BK =

Core colours :  
black