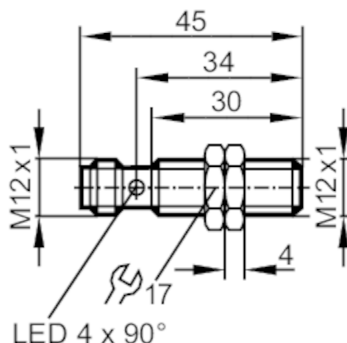


## Inductive sensor

IFB3004UBPKG/K1/SC/US-104



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 4                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 45 |

### Application

|                                   |                                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------|
| Special feature                   | Gold-plated contacts; Increased sensing range; Correction factor K = 1; Magnetic-field immune |
| Application                       | Use in welding applications                                                                   |
| Magnetic-field immune             | yes                                                                                           |
| Max. magnetic field immunity [mT] | 300                                                                                           |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 20       |
| 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] | 100           |
| Switching frequency DC [Hz]                          | 2000          |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

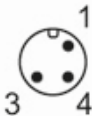
|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 4        |
| Real sensing range Sr [mm] | 4 ± 10 % |
| Operating distance [mm]    | 0...3.24 |
| Increased sensing range    | yes      |

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## Inductive sensor

IFB3004UBPKG/K1/SC/US-104

| Accuracy / deviations                                                                          |                                                                                             |                         |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------|
| Correction factor                                                                              | steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1                         |                         |
| Hysteresis [% of Sr]                                                                           | 3...15                                                                                      |                         |
| Switch point drift [% of Sr]                                                                   | -10...10                                                                                    |                         |
| Correction factor K = 1                                                                        | yes                                                                                         |                         |
| 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 emission                                                                           | class B                 |
| MTTF [years]                                                                                   | 659                                                                                         |                         |
| Embedded software included                                                                     | yes                                                                                         |                         |
| UL approval                                                                                    | Ta                                                                                          | -25...70 °C             |
|                                                                                                | Enclosure type                                                                              | Type 1                  |
|                                                                                                | power supply                                                                                | Limited Voltage/Current |
|                                                                                                | UL Approval no.                                                                             | A005                    |
|                                                                                                | File number UL                                                                              | E174191                 |
| Mechanical data                                                                                |                                                                                             |                         |
| Weight [g]                                                                                     | 24.3                                                                                        |                         |
| Housing                                                                                        | threaded type                                                                               |                         |
| Mounting                                                                                       | flush mountable                                                                             |                         |
| Dimensions [mm]                                                                                | M12 x 1 / L = 45                                                                            |                         |
| Thread designation                                                                             | M12 x 1                                                                                     |                         |
| Materials                                                                                      | brass anti-spatter; sensing face: LCP black; LED window: PEI; lock nuts: brass anti-spatter |                         |
| Tightening torque [Nm]                                                                         | 2                                                                                           |                         |
| Displays / operating elements                                                                  |                                                                                             |                         |
| Display                                                                                        | switching status                                                                            | 4 x LED, yellow         |
| Accessories                                                                                    |                                                                                             |                         |
| Items supplied                                                                                 | lock nuts: 2                                                                                |                         |
| Remarks                                                                                        |                                                                                             |                         |
| Pack quantity                                                                                  | 1 pcs.                                                                                      |                         |
| Electrical connection - plug                                                                   |                                                                                             |                         |
| Connector: 1 x M12; coding: A; Contacts: gold-plated                                           |                                                                                             |                         |
| <div></div> |                                                                                             |                         |

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## Inductive sensor

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### Connection

