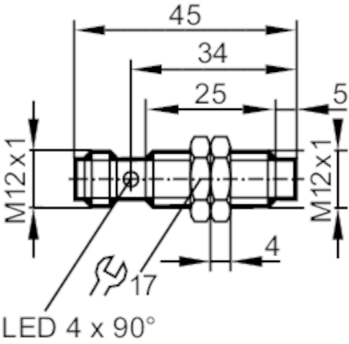


# IF5539



## Inductive sensor

IFB3004-BPKG/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                                     |      |                                                                            |
| System                                          |      | gold-plated contacts                                                       |
| Application                                     |      | Industrial applications                                                    |
| 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] | 1500                                                                       |
| Short-circuit protection                        |      | yes                                                                        |
| Type of short-circuit protection                |      | yes (non-latching)                                                         |
| Overload protection                             |      | yes                                                                        |
| Monitoring range                                |      |                                                                            |
| Sensing range                                   | [mm] | 4                                                                          |
| Real sensing range Sr                           | [mm] | 4 ± 10 %                                                                   |
| Operating distance                              | [mm] | 0...3.24                                                                   |
| Accuracy / deviations                           |      |                                                                            |
| Correction factor                               |      | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3 |

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|                    |           |          |
|--------------------|-----------|----------|
| Hysteresis         | [% of Sr] | 1...20   |
| Switch-point drift | [% of Sr] | -10...10 |

### Operating conditions

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

### 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                 |
| MTTF        | [years]                   | 1134                    |
| UL approval | Ta                        | 0...40 °C               |
|             | Enclosure type            | Type 1                  |
|             | voltage supply            | Limited Voltage/Current |
|             | UL approval number        | A001                    |
|             | File number UL            | E174191                 |

### Mechanical data

|                    |      |                                                                                                                        |
|--------------------|------|------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 24.275                                                                                                                 |
| Housing            |      | Threaded type                                                                                                          |
| Mounting           |      | non-flush mountable                                                                                                    |
| Dimensions         | [mm] | M12 x 1 / L = 45                                                                                                       |
| Thread designation |      | M12 x 1                                                                                                                |
| Material           |      | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Tightening torque  | [Nm] | 7                                                                                                                      |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 4 x LED, yellow |
|---------|------------------|-----------------|

### Accessories

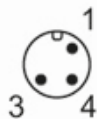
|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated



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### Connection

