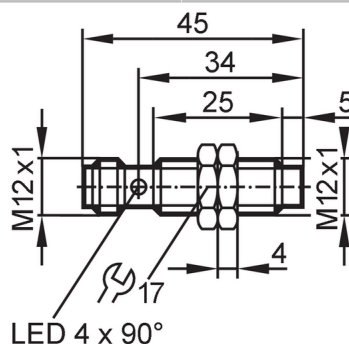


# IF5545



## Inductive sensor

IFB3004-APKG/US-104



### Product characteristics

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

### Application

|                 |                         |
|-----------------|-------------------------|
| Special feature | 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 closed    |
| 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 |
| Hysteresis [% of Sr] | 1...20                                                                     |

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|                    |           |          |
|--------------------|-----------|----------|
| 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]  | 25.8                                                                                                                   |
| 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

