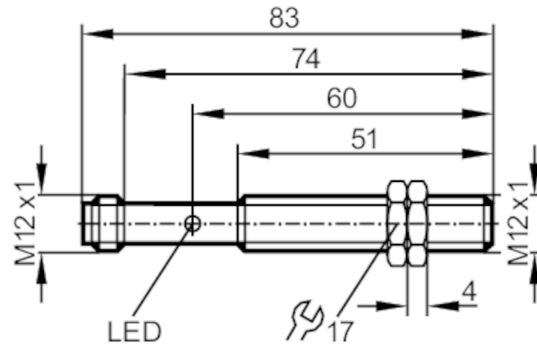


# IF5851



## Inductive sensor

IFA3002-BPKG/V4A/US-100-DPS



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 2                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 83 |

### Application

|                 |  |
|-----------------|--|
| Special feature | Gold-plated contacts                         |
| Application     | Industrial applications / factory automation |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | 15; (24 V) |
| 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] | 250           |
| Switching frequency DC [Hz]                          | 800           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

### Detection zone

|                               |              |
|-------------------------------|--------------|
| Sensing range [mm]            | 2            |
| Real sensing range $S_r$ [mm] | $2 \pm 10\%$ |
| Operating distance [mm]       | 0...1.6      |

### Accuracy / deviations

|                   |   |
|-------------------|---|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |
|-------------------|---|

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|                    |           |          |
|--------------------|-----------|----------|
| Hysteresis         | [% of Sr] | 1...15   |
| Switch point drift | [% of Sr] | -10...10 |

### Operating conditions

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

### Tests / approvals

|             |                |                   |
|-------------|----------------|-------------------|
| EMC         | EN 60947-5-2   |                   |
|             | EN 55011       | class B           |
| MTTF        | [years]        | 945               |
| UL approval | Ta             | 0...40 °C         |
|             | Enclosure type | Type 1            |
|             | power supply   | Hazardous voltage |
|             | File number UL | E174191           |

### Mechanical data

|                    |      |  |
|--------------------|------|--|
| Weight             | [g]  | 33   |
| Housing            |      | threaded type  |
| Mounting           |      | flush mountable  |
| Dimensions         | [mm] | M12 x 1 / L = 83   |
| Thread designation |      | M12 x 1  |
| Materials          |      | stainless steel (316Ti/1.4571); sensing face: PBT uncoloured |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | switching status | 1 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

