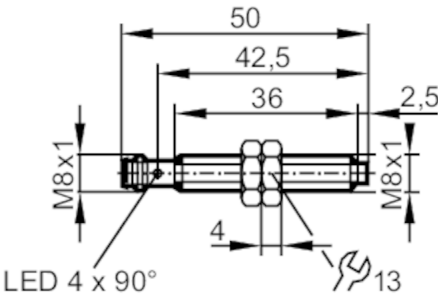


# IE5339



## Inductive sensor

IEB30,2-BPKG/AS



### Product characteristics

|                    |                                      |
|--------------------|--------------------------------------|
| Electrical design  | PNP                                  |
| Output function    | normally open                        |
| Sensing range [mm] | 0.2; (for target made of mild steel) |
| Housing            | threaded type                        |
| Dimensions [mm]    | M8 x 1 / L = 50                      |

### 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]                          | 300           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

|                            |                                      |
|----------------------------|--------------------------------------|
| Sensing range [mm]         | 0.2; (for target made of mild steel) |
| Real sensing range Sr [mm] | 0.2 ± 10 %                           |

### Accuracy / deviations

|                         |                                                                             |
|-------------------------|-----------------------------------------------------------------------------|
| Correction factor       | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis [mm]         | 0.002...0.025                                                               |
| Switch point drift [mm] | > 0.04                                                                      |
| Repeatability [mm]      | < 0.015                                                                     |

### Operating conditions

|                          |                                                 |
|--------------------------|-------------------------------------------------|
| Ambient temperature [°C] | 0...80                                          |
| Protection               | IP 65; IP 67; (with ifm socket duly screwed on) |

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### 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                 |
| Impact resistance           | EN 60068-2-75 Ehc         |                         |
| Vibration resistance        | EN 60068-2-6 Fc           |                         |
| Shock resistance            | EN 60068-2-27 Ea          |                         |
| Continuous shock resistance | EN 60068-2-29 Eb          |                         |
| Fast temperature change     | EN 60068-2-14 Na          |                         |
| Salt spray test             | EN 60068-2-52 Kb          |                         |
| MTTF [years]                |                           | 1379                    |
| Embedded software included  |                           | yes                     |
| UL approval                 | Ta                        | 0...80 °C               |
|                             | Enclosure type            | Type 1                  |
|                             | power supply              | Limited Voltage/Current |
|                             | UL Approval no.           | A017                    |
|                             | File number UL            | E174191                 |

### Mechanical data

|                        |                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------|
| Weight [g]             | 18.8                                                                                                           |
| Housing                | threaded type                                                                                                  |
| Mounting               | non-flush mountable                                                                                            |
| Dimensions [mm]        | M8 x 1 / L = 50                                                                                                |
| Thread designation     | M8 x 1                                                                                                         |
| Materials              | brass white bronze coated; sensing face: LCP orange;<br>LED window: PPSU; lock nuts: brass white bronze coated |
| Tightening torque [Nm] | A = 5 mm: 1,5 Nm; B = 2 Nm                                                                                     |

### 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 M8; coding: A



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### Connection



### Diagrams and graphs

#### Installation

