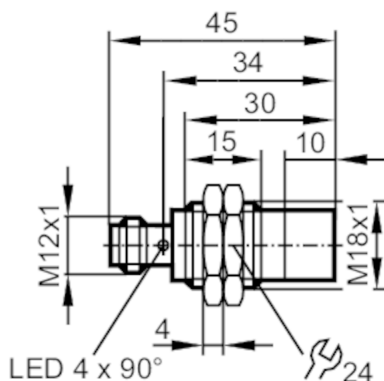




## Inductive sensor

IGB3015-APKG/K1/US-104



### Application

|                                   |     |
|-----------------------------------|-----|
| Magnetic-field immune             | yes |
| Max. magnetic field immunity [mT] | 300 |

### Electrical data

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

### Detection zone

|                               |                |
|-------------------------------|----------------|
| Sensing range [mm]            | 15             |
| Real sensing range $S_r$ [mm] | $15 \pm 10 \%$ |
| Operating distance [mm]       | 0...12.15      |
| Increased sensing range       | yes            |

### Accuracy / deviations

|                                  |                                                                     |
|----------------------------------|---------------------------------------------------------------------|
| Correction factor                | steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1 |
| Hysteresis [% of $S_r$ ]         | 3...15                                                              |
| Switch point drift [% of $S_r$ ] | -10...10                                                            |
| Correction factor $K = 1$        | yes                                                                 |



## Inductive sensor

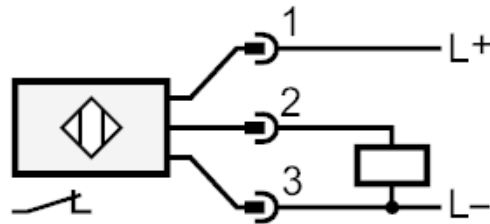
IGB3015-APKG/K1/US-104

| 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                  | class B                                                                                                   |
| Vibration resistance                                                                | EN 60068-2-6 Fc           | 20 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes                           |
| Shock resistance                                                                    | EN 60068-2-27 Ea          | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes                          |
| Continuous shock resistance                                                         | EN 60068-2-29 Eb          | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes                                   |
| Fast temperature changes                                                            | EN 60068-2-14 Na          | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles                                              |
| Salt spray test                                                                     | EN 60068-2-52 Kb          | severity level 5 (4 test cycles)                                                                          |
| Mechanical data                                                                     |                           |                                                                                                           |
| Weight                                                                              | [g]                       | 38.8                                                                                                      |
| Housing                                                                             |                           | threaded type                                                                                             |
| Mounting                                                                            |                           | non-flush mountable                                                                                       |
| Dimensions                                                                          | [mm]                      | M18 x 1 / L = 45                                                                                          |
| Thread designation                                                                  |                           | M18 x 1                                                                                                   |
| Materials                                                                           |                           | brass white bronze coated; sensing face: LCP white; LED window: PEI; lock nuts: brass white bronze coated |
| Displays / operating elements                                                       |                           |                                                                                                           |
| Display                                                                             | switching status          | 4 x LED, yellow                                                                                           |
| Accessories                                                                         |                           |                                                                                                           |
| Accessories (supplied)                                                              |                           | lock nuts: 2                                                                                              |
| Remarks                                                                             |                           |                                                                                                           |
| Pack quantity                                                                       |                           | 1 pcs.                                                                                                    |
| Electrical connection - plug                                                        |                           |                                                                                                           |
| Connector: 1 x M12; Contacts: gold-plated                                           |                           |                                                                                                           |
|  |                           |                                                                                                           |

## Inductive sensor

IGB3015-APKG/K1/US-104

### Connection



### Diagrams and graphs

#### Installation

