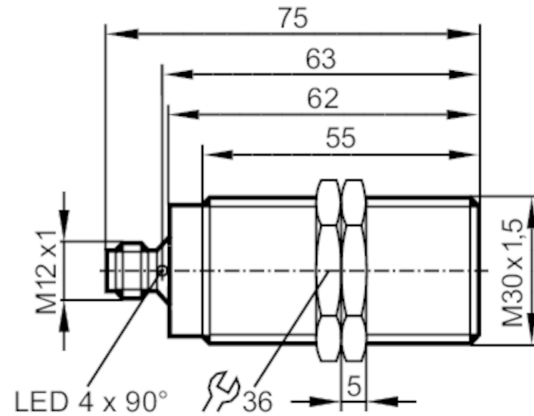




## Inductive sensor

IIA3015BBPKG/US



### Product characteristics

|                    |                    |
|--------------------|--------------------|
| Electrical design  | PNP                |
| Output function    | normally open      |
| Sensing range [mm] | 15                 |
| Housing            | threaded type      |
| Dimensions [mm]    | M30 x 1.5 / L = 75 |

### Application

|                 |                                               |
|-----------------|-----------------------------------------------|
| Special feature | Gold-plated contacts; Increased sensing range |
|-----------------|-----------------------------------------------|

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | < 15       |
| 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]                          | 100           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| 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            |

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## Inductive sensor

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| Accuracy / deviations                     |                                                                             |                                                                                                |
|-------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Correction factor                         | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |                                                                                                |
| Hysteresis [% of Sr]                      | 1...20                                                                      |                                                                                                |
| Operating conditions                      |                                                                             |                                                                                                |
| Ambient temperature [°C]                  | -40...70                                                                    |                                                                                                |
| 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 61000-4-5 Surge                                                          | 0,5 kV line to line, Ri: 2 Ohm                                                                 |
|                                           | EN 61000-4-6 HF conducted                                                   | 10 V                                                                                           |
|                                           | EN 55011 emission                                                           | class B                                                                                        |
|                                           | signal-to-noise ratio walkie-talkie                                         | 150 MHz (5 W): 7,5 cm / 450 MHz (5 W): 5 cm / 900 MHz (2 W): 0 cm                              |
| Vibration resistance                      | EN 60068-2-6 Fc                                                             | 20 g (10...3000 Hz) / -20...50 °C                                                              |
|                                           |                                                                             | 50 sweep cycles, 1 octave per minute, in 3 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 / -40...85 °C |
| Continuous shock resistance               | EN 60068-2-27                                                               | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C          |
| MTTF [years]                              | 1638                                                                        |                                                                                                |
| Mechanical data                           |                                                                             |                                                                                                |
| Weight [g]                                | 209                                                                         |                                                                                                |
| Housing                                   | threaded type                                                               |                                                                                                |
| Mounting                                  | flush mountable                                                             |                                                                                                |
| Dimensions [mm]                           | M30 x 1.5 / L = 75                                                          |                                                                                                |
| Thread designation                        | M30 x 1.5                                                                   |                                                                                                |
| Materials                                 | brass white bronze coated; sensing face: PBT uncoloured; lock nuts: brass   |                                                                                                |
| Displays / operating elements             |                                                                             |                                                                                                |
| Display                                   | switching status                                                            | 4 x 90° LED, yellow                                                                            |
| Accessories                               |                                                                             |                                                                                                |
| Items supplied                            | lock nuts: 2                                                                |                                                                                                |
| Remarks                                   |                                                                             |                                                                                                |
| Pack quantity                             | 1 pcs.                                                                      |                                                                                                |
| Electrical connection - plug              |                                                                             |                                                                                                |
| Connector: 1 x M12; Contacts: gold-plated |                                                                             |                                                                                                |

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### Connection

