

## Inductive sensor

IIB3015BAPKG/US-104



## Product characteristics

|                    |                    |
|--------------------|--------------------|
| Electrical design  | PNP                |
| Output function    | normally closed    |
| Sensing range [mm] | 15                 |
| Housing            | threaded type      |
| Dimensions [mm]    | M30 x 1.5 / L = 50 |

## Application

|                 |                                               |
|-----------------|-----------------------------------------------|
| Special feature | Gold-plated contacts; Increased sensing range |
| Application     | Industrial applications / factory automation  |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| Protection class            | II         |
| 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]                          | 100             |
| 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            |



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| Accuracy / deviations                                                                          |                                                                                                                        |                         |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Correction factor                                                                              | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3                                            |                         |
| Hysteresis                                                                                     | [% of Sr]                                                                                                              | 3...15                  |
| Switch point drift                                                                             | [% of Sr]                                                                                                              | -10...10                |
| Operating conditions                                                                           |                                                                                                                        |                         |
| Ambient temperature                                                                            | [°C]                                                                                                                   | -25...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 61000-4-6 HF conducted                                                                                              | 10 V                    |
|                                                                                                | EN 55011                                                                                                               | class B                 |
| MTTF                                                                                           | [years]                                                                                                                | 1134                    |
| Embedded software included                                                                     | no                                                                                                                     |                         |
| UL approval                                                                                    | Ta                                                                                                                     | 0...40 °C               |
|                                                                                                | Enclosure type                                                                                                         | Type 1                  |
|                                                                                                | power supply                                                                                                           | Limited Voltage/Current |
|                                                                                                | UL Approval no.                                                                                                        | A001                    |
|                                                                                                | File number UL                                                                                                         | E174191                 |
| Mechanical data                                                                                |                                                                                                                        |                         |
| Weight                                                                                         | [g]                                                                                                                    | 105.7                   |
| Housing                                                                                        | threaded type                                                                                                          |                         |
| Mounting                                                                                       | flush mountable                                                                                                        |                         |
| Dimensions                                                                                     | [mm]                                                                                                                   | M30 x 1.5 / L = 50      |
| Thread designation                                                                             | M30 x 1.5                                                                                                              |                         |
| Materials                                                                                      | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |                         |
| 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

