

## Inductive sensor

IIKC012BBSKG/US-104



## Product characteristics

|                    |                    |
|--------------------|--------------------|
| Electrical design  | PNP/NPN            |
| Output function    | normally closed    |
| Sensing range [mm] | 12                 |
| Housing            | threaded type      |
| Dimensions [mm]    | M30 x 1.5 / L = 70 |

## Application

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

## Electrical data

|                             |                                  |
|-----------------------------|----------------------------------|
| Operating voltage [V]       | 10...36 DC                       |
| Current consumption [mA]    | < 10; (only in 3-wire operation) |
| Protection class            | II                               |
| Reverse polarity protection | yes                              |

## Outputs

|                                                      |                                 |
|------------------------------------------------------|---------------------------------|
| Electrical design                                    | PNP/NPN                         |
| Output function                                      | normally closed                 |
| Max. voltage drop switching output DC [V]            | 2.5                             |
| Minimum load current [mA]                            | 2; (only in 2-wire operation)   |
| Max. leakage current [mA]                            | 0.5; (only in 2-wire operation) |
| 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]      | 12       |
| Operating distance [mm] | 0...9.72 |
| Increased sensing range | yes      |



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| Accuracy / deviations         |                                                                                        |                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Correction factor             | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.45 / copper: 0.35          |                                                                                                |
| Hysteresis                    | [% of Sr]                                                                              | 1...20                                                                                         |
| Operating conditions          |                                                                                        |                                                                                                |
| Ambient temperature           | [°C]                                                                                   | -40...85                                                                                       |
| Protection                    | IP 67; IP 69K                                                                          |                                                                                                |
| Tests / approvals             |                                                                                        |                                                                                                |
| EMC                           | EN 61000-4-2 ESD                                                                       | 4 kV CD / 8 kV AD                                                                              |
|                               | EN 61000-4-3 HF radiated                                                               | 30 V/m                                                                                         |
|                               | EN 61000-4-4 Burst                                                                     | 2 V                                                                                            |
|                               | EN 61000-4-5 Surge                                                                     | 0,5 kV mains line to line                                                                      |
|                               | EN 61000-4-6 HF conducted                                                              | 10 V                                                                                           |
|                               | EN 55011                                                                               | class B                                                                                        |
| 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 60068-2-30 Eb                                                                       | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C          |
| Salt spray test               | EN 60068-2-52 Kb                                                                       | severity level 5 (4 test cycles)                                                               |
| MTTF                          | [years]                                                                                | 1253                                                                                           |
| UL approval                   | Ta                                                                                     | -40...85 °C                                                                                    |
|                               | Enclosure type                                                                         | Type 1                                                                                         |
|                               | power supply                                                                           | Limited Voltage/Current                                                                        |
|                               | File number UL                                                                         | E174191                                                                                        |
| Mechanical data               |                                                                                        |                                                                                                |
| Weight                        | [g]                                                                                    | 134                                                                                            |
| Housing                       | threaded type                                                                          |                                                                                                |
| Mounting                      | flush mountable                                                                        |                                                                                                |
| Dimensions                    | [mm]                                                                                   | M30 x 1.5 / L = 70                                                                             |
| Thread designation            | M30 x 1.5                                                                              |                                                                                                |
| Materials                     | housing: stainless steel; sensing face: LCP natural; LED window: PEI; 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.                                                                                 |                                                                                                |

# II5923



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### Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated

