

## Inductive sensor

IIC3010-BPKG/M/US104-DPS



## Product characteristics

|                    |                    |
|--------------------|--------------------|
| Electrical design  | PNP                |
| Output function    | normally open      |
| Sensing range [mm] | 10                 |
| Housing            | threaded type      |
| Dimensions [mm]    | M30 x 1.5 / L = 70 |

## Application

|                 |                                               |
|-----------------|-----------------------------------------------|
| Special feature | Gold-plated contacts                          |
| Application     | Use in machine tools, coolants and lubricants |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Current consumption [mA]    | < 10       |
| 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] | 200           |
| Switching frequency DC [Hz]                          | 100           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

## Detection zone

|                               |                |
|-------------------------------|----------------|
| Sensing range [mm]            | 10             |
| Real sensing range $S_r$ [mm] | $10 \pm 10 \%$ |
| Operating distance [mm]       | 0...8.1        |



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| Accuracy / deviations                                                                          |                           |                                                                             |
|------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------|
| Correction factor                                                                              |                           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4 |
| Hysteresis                                                                                     | [% of Sr]                 | 1...20                                                                      |
| Switch point drift                                                                             | [% of Sr]                 | -10...10                                                                    |
| Operating conditions                                                                           |                           |                                                                             |
| Ambient temperature                                                                            |                           | [°C] -25...70                                                               |
| Protection                                                                                     |                           | IP 68; ("Coolant")                                                          |
| 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                                                                      |
|                                                                                                | EN 61000-4-6 HF conducted | 10 V                                                                        |
|                                                                                                | EN 55011                  | class B                                                                     |
| MTTF                                                                                           | [years]                   | 1709                                                                        |
| UL approval                                                                                    | Ta                        | 0...40 °C                                                                   |
|                                                                                                | Enclosure type            | Type 1                                                                      |
|                                                                                                | power supply              | Limited Voltage/Current                                                     |
|                                                                                                | File number UL            | E174191                                                                     |
| Mechanical data                                                                                |                           |                                                                             |
| Weight                                                                                         | [g]                       | 126.8                                                                       |
| Housing                                                                                        |                           | threaded type                                                               |
| Mounting                                                                                       |                           | flush mountable                                                             |
| Dimensions                                                                                     | [mm]                      | M30 x 1.5 / L = 70                                                          |
| Thread designation                                                                             |                           | M30 x 1.5                                                                   |
| Materials                                                                                      |                           | stainless steel (1.4404 / 316L); sensing face: LCP uncoloured               |
| 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; coding: A; Contacts: gold-plated                                           |                           |                                                                             |
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### Connection

