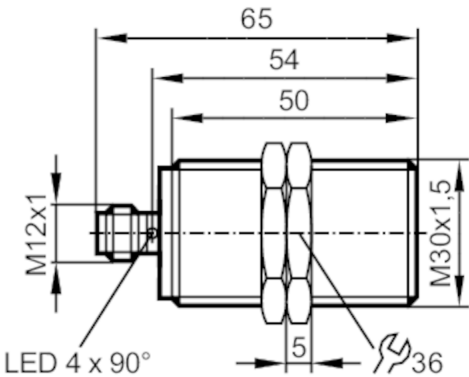




Inductive full-metal sensor

IIC3010-BPKG/AM/US-104



| Product characteristics                         |       |                                               |
|-------------------------------------------------|-------|-----------------------------------------------|
| Electrical design                               |       | PNP                                           |
| Output function                                 |       | normally open                                 |
| Sensing range                                   | [mm]  | 10                                            |
| Housing                                         |       | threaded type                                 |
| Dimensions                                      | [mm]  | M30 x 1.5 / L = 65                            |
| Application                                     |       |                                               |
| Special feature                                 |       | Gold-plated contacts; Full-metal housing      |
| Application                                     |       | Use in machine tools, coolants and lubricants |
| Pressure rating                                 | [bar] | 100                                           |
| Pressure rating                                 | [MPa] | 10                                            |
| Note on pressure rating                         |       | sensing face                                  |
| 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 open                                 |
| Max. voltage drop switching output DC           | [V]   | 2.5                                           |
| Permanent current rating of switching output DC | [mA]  | 100                                           |
| Switching frequency DC                          | [Hz]  | 50                                            |
| Short-circuit protection                        |       | yes                                           |
| Type of short-circuit protection                |       | pulsed                                        |
| Overload protection                             |       | yes                                           |
| Detection zone                                  |       |                                               |
| Sensing range                                   | [mm]  | 10                                            |



## Inductive full-metal sensor

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|                    |      |         |
|--------------------|------|---------|
| Operating distance | [mm] | 0...8.1 |
|--------------------|------|---------|

## Accuracy / deviations

|                   |                                                                             |        |
|-------------------|-----------------------------------------------------------------------------|--------|
| Correction factor | steel: 1 / stainless steel: 0.6 / brass: 0.8 / aluminium: 0.6 / copper: 0.2 |        |
| Hysteresis        | [% of Sr]                                                                   | 1...20 |

## Operating conditions

|                     |                           |          |
|---------------------|---------------------------|----------|
| Ambient temperature | [°C]                      | -25...70 |
| Protection          | IP 67; 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 61000-4-6 HF conducted | 10 V                    |
|                            | EN 55011 emission         | class B                 |
| Impact resistance          |                           | 1 J                     |
| MTTF                       | [years]                   | 1258                    |
| Embedded software included | yes                       |                         |
| UL approval                | Ta                        | -25...70 °C             |
|                            | Enclosure type            | Type 1                  |
|                            | power supply              | Limited Voltage/Current |
|                            | UL Approval no.           | A012                    |
|                            | File number UL            | E174191                 |

## Mechanical data

|                    |                                                                                                                                                |                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Weight             | [g]                                                                                                                                            | 135                |
| Housing            | threaded type                                                                                                                                  |                    |
| Mounting           | flush mountable                                                                                                                                |                    |
| Dimensions         | [mm]                                                                                                                                           | M30 x 1.5 / L = 65 |
| Thread designation | M30 x 1.5                                                                                                                                      |                    |
| Materials          | housing: stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404) |                    |
| Tightening torque  | [Nm]                                                                                                                                           | 80                 |
| Full-metal housing | yes                                                                                                                                            |                    |

## Displays / operating elements

|         |                  |                     |
|---------|------------------|---------------------|
| Display | switching status | 4 x 90° LED, yellow |
|---------|------------------|---------------------|

## Accessories

|                |              |  |
|----------------|--------------|--|
| Items supplied | lock nuts: 2 |  |
|----------------|--------------|--|

## Remarks

|               |        |  |
|---------------|--------|--|
| Pack quantity | 1 pcs. |  |
|---------------|--------|--|

## Electrical connection



# IIC224



## Inductive full-metal sensor

IHK3010-BPKG/AM/US-104

### Connection



### Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated