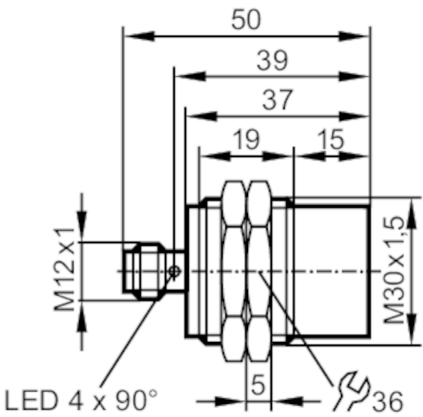




Inductive sensor

IIB3022-BPKG/US-104



| Product characteristics                         |      |                                               |
|-------------------------------------------------|------|-----------------------------------------------|
| Electrical design                               |      | PNP                                           |
| Output function                                 |      | normally open                                 |
| Sensing range                                   | [mm] | 22                                            |
| Housing                                         |      | threaded type                                 |
| Dimensions                                      | [mm] | M30 x 1.5 / L = 50                            |
| Application                                     |      |                                               |
| Special feature                                 |      | Gold-plated contacts; Increased sensing range |
| Application                                     |      | Use in machine tools, coolants and lubricants |
| Electrical data                                 |      |                                               |
| Operating voltage                               | [V]  | 10...36 DC                                    |
| Current consumption                             | [mA] | 10; (24 V)                                    |
| 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] | 100                                           |
| Switching frequency DC                          | [Hz] | 100                                           |
| Short-circuit protection                        |      | yes                                           |
| Type of short-circuit protection                |      | pulsed                                        |
| Overload protection                             |      | yes                                           |
| Detection zone                                  |      |                                               |
| Sensing range                                   | [mm] | 22                                            |
| Real sensing range Sr                           | [mm] | 22 ± 10 %                                     |
| Operating distance                              | [mm] | 0...17.82                                     |



## Inductive sensor

IIB3022-BPKG/US-104

|                         |     |
|-------------------------|-----|
| Increased sensing range | yes |
|-------------------------|-----|

## 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 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                  | class B                 |
| MTTF [years] | 1134                      |                         |
| UL approval  | Ta                        | 0...40 °C               |
|              | Enclosure type            | Type 1                  |
|              | power supply              | Limited Voltage/Current |
|              | File number UL            | E174191                 |

## Mechanical data

|                    |                                              |
|--------------------|----------------------------------------------|
| Weight [g]         | 104                                          |
| Housing            | threaded type                                |
| Mounting           | non-flush mountable                          |
| Dimensions [mm]    | M30 x 1.5 / L = 50                           |
| Thread designation | M30 x 1.5                                    |
| Materials          | brass white bronze coated; sensing face: LCP |

## 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



## Inductive sensor

IIB3022-BPKG/US-104

### Connection

