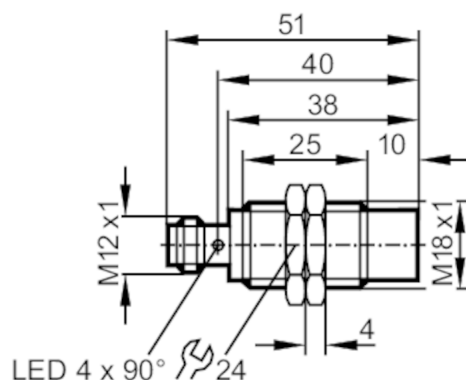


## Inductive sensor

IGB2012-ARKG/M/US-104-ARS



## Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP/NPN          |
| Output function    | normally open    |
| Sensing range [mm] | 12               |
| Housing            | Threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 51 |

## Application

|             |                                               |
|-------------|-----------------------------------------------|
| System      | gold-plated contacts; Increased sensing range |
| Application | Industrial applications                       |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Protection class            | II         |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |                    |
|------------------------------------------------------|--------------------|
| Electrical design                                    | PNP/NPN            |
| Output function                                      | normally open      |
| Max. voltage drop switching output DC [V]            | 2.5                |
| Minimum load current [mA]                            | 2                  |
| Max. leakage current [mA]                            | 0.5                |
| Permanent current rating of switching output DC [mA] | 100                |
| Switching frequency DC [Hz]                          | 250                |
| Short-circuit protection                             | yes                |
| Type of short-circuit protection                     | yes (non-latching) |
| Overload protection                                  | yes                |

## Monitoring range

|                            |           |
|----------------------------|-----------|
| Sensing range [mm]         | 12        |
| Real sensing range Sr [mm] | 12 ± 10 % |



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|                         |      |         |
|-------------------------|------|---------|
| Operating distance      | [mm] | 0...9.7 |
| Increased sensing range |      | yes     |

## Accuracy / deviations

|                    |           |                                                                            |
|--------------------|-----------|----------------------------------------------------------------------------|
| Correction factor  |           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 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]                   | 2655              |
| UL approval | Ta                        | 0...40 °C         |
|             | Enclosure type            | Type 1            |
|             | voltage supply            | Hazardous voltage |
|             | File number UL            | E174191           |

## Mechanical data

|                    |      |                                              |
|--------------------|------|----------------------------------------------|
| Weight             | [g]  | 44.4                                         |
| Housing            |      | Threaded type                                |
| Mounting           |      | non-flush mountable                          |
| Dimensions         | [mm] | M18 x 1 / L = 51                             |
| Thread designation |      | M18 x 1                                      |
| Material           |      | brass white bronze coated; sensing face: PBT |

## Displays / operating elements

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

## Accessories

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

## Remarks

|               |                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------|
| Remarks       | For direct replacement of 3-wire NPN sensors<br>In this case pin 1 (grey in the wiring diagram) is not used. |
| Pack quantity | 1 pcs.                                                                                                       |

## Electrical connection - plug

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





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### Connection

