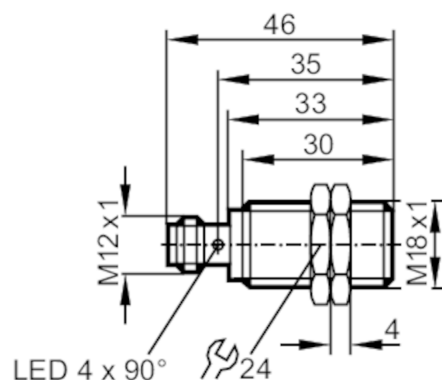




## Inductive sensor

IGB2008BARKG/M/US-104-DRS



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP/NPN          |
| Output function    | normally open    |
| Sensing range [mm] | 8                |
| Housing            | threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 46 |

### Application

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

### 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]                          | 400           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

### Detection zone

|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 8        |
| Real sensing range Sr [mm] | 8 ± 10 % |



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|                         |      |         |
|-------------------------|------|---------|
| Operating distance      | [mm] | 0...6.5 |
| 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]                   | 2655              |
| UL approval | Ta                        | 0...40 °C         |
|             | Enclosure type            | Type 1            |
|             | power supply              | Hazardous voltage |
|             | File number UL            | E174191           |

### Mechanical data

|                    |      |                                                       |
|--------------------|------|-------------------------------------------------------|
| Weight             | [g]  | 43.4                                                  |
| Housing            |      | threaded type                                         |
| Mounting           |      | flush mountable                                       |
| Dimensions         | [mm] | M18 x 1 / L = 46                                      |
| Thread designation |      | M18 x 1                                               |
| Materials          |      | housing: 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

|               |  |                                                                                                                  |
|---------------|--|------------------------------------------------------------------------------------------------------------------|
| Remarks       |  | Conventional 3-wire pnp sensors can be replaced.<br>In this case pin 3 (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

