



Inductive sensor

IGK3008BBPKG/US-104



| Product characteristics                         |           |                                                                             |
|-------------------------------------------------|-----------|-----------------------------------------------------------------------------|
| Electrical design                               |           | PNP                                                                         |
| Output function                                 |           | normally open                                                               |
| Sensing range                                   | [mm]      | 8                                                                           |
| Housing                                         |           | threaded type                                                               |
| Dimensions                                      | [mm]      | M18 x 1 / L = 70                                                            |
| Application                                     |           |                                                                             |
| Special feature                                 |           | Gold-plated contacts; Increased sensing range                               |
| Application                                     |           | Industrial applications / factory automation                                |
| Electrical data                                 |           |                                                                             |
| Operating voltage                               | [V]       | 10...30 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]      | 100                                                                         |
| Switching frequency DC                          | [Hz]      | 400                                                                         |
| Short-circuit protection                        |           | yes                                                                         |
| Overload protection                             |           | yes                                                                         |
| Detection zone                                  |           |                                                                             |
| Sensing range                                   | [mm]      | 8                                                                           |
| Real sensing range Sr                           | [mm]      | 8 ± 10 %                                                                    |
| Operating distance                              | [mm]      | 0...6.48                                                                    |
| 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                                                                      |



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|                    |           |          |
|--------------------|-----------|----------|
| 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 61000-4-5 Surge        | 0,5 kV            |
|                            | EN 61000-4-6 HF conducted | 10 V              |
|                            | EN 55011                  | class B           |
| MTTF                       | [years]                   | 1134              |
| Embedded software included |                           | no                |
| UL approval                | Ta                        | 0...40 °C         |
|                            | Enclosure type            | Type 1            |
|                            | power supply              | Hazardous voltage |
|                            | UL Approval no.           | A003              |
|                            | File number UL            | E174191           |

Mechanical data

|                    |      |                                                                                                                        |
|--------------------|------|------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 51.7                                                                                                                   |
| Housing            |      | threaded type                                                                                                          |
| Mounting           |      | flush mountable                                                                                                        |
| Dimensions         | [mm] | M18 x 1 / L = 70                                                                                                       |
| Thread designation |      | M18 x 1                                                                                                                |
| Materials          |      | housing: brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |

Displays / operating elements

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

Accessories

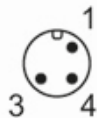
|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

Remarks

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

Electrical connection - plug

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



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### Connection

