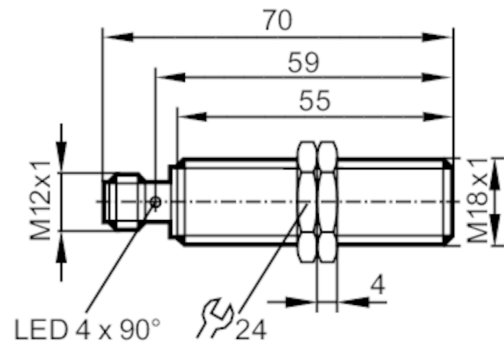


# IG510A



## Inductive full-metal sensor

IGK3005-BPKG/AM/US104DPS/3G/3D



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 5                |
| Housing            | threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 70 |

### Application

|                         |                                                                   |
|-------------------------|-------------------------------------------------------------------|
| Special feature         | Gold-plated contacts; Increased sensing range; Full-metal housing |
| Pressure rating [bar]   | 100                                                               |
| 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]                          | 100           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Detection zone

|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 5        |
| Real sensing range Sr [mm] | 5 ± 10 % |
| Operating distance [mm]    | 0...4.05 |
| Increased sensing range    | yes      |

### Accuracy / deviations

|                   |                                                                             |
|-------------------|-----------------------------------------------------------------------------|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminium: 0.5 / copper: 0.2 |
|-------------------|-----------------------------------------------------------------------------|

# IG510A



## Inductive full-metal sensor

IGK3005-BPKG/AM/US104DPS/3G/3D

|                    |           |          |
|--------------------|-----------|----------|
| Hysteresis         | [% of Sr] | 1...20   |
| Switch point drift | [% of Sr] | -10...10 |

### Operating conditions

|                     |                                                                            |          |
|---------------------|----------------------------------------------------------------------------|----------|
| Ambient temperature | [°C]                                                                       | -40...60 |
| Protection          | IP 67; (when used outside the hazardous area: IP 65, IP 67, IP 68, IP 69K) |          |

### Tests / approvals

|                             |                                                                                                             |                                                                                  |
|-----------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Approval                    | BVS 20 ATEX E 055 X; IECEx BVS 20.0042 X                                                                    |                                                                                  |
| ATEX marking                |  II 3G Ex ec IIC T6 Gc     |                                                                                  |
|                             |  II 3D Ex tc IIIC T85°C Dc |                                                                                  |
| 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                                                                          |
| Impact resistance           | EN 60068-2-75 Ehc                                                                                           | 1 J                                                                              |
| Vibration resistance        | EN 60068-2-6 Fc                                                                                             | 20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes            |
| Shock resistance            | EN 60068-2-27 Ea                                                                                            | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Continuous shock resistance | EN 60068-2-27 Ea                                                                                            | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes          |
| Fast temperature change     | EN 60068-2-14 Na                                                                                            | TA = -40°C; TB = 85°C; t1 = 30 min; t2 = 10 s<br>50 cycles                       |
| Salt spray test             | EN 60068-2-52 Kb                                                                                            | severity level 5 (4 test cycles)                                                 |
| MTTF                        | [years]                                                                                                     | 1258                                                                             |

### Mechanical data

|                    |                                                                |                  |
|--------------------|----------------------------------------------------------------|------------------|
| Weight             | [g]                                                            | 78.7             |
| Housing            | threaded type                                                  |                  |
| Mounting           | flush mountable                                                |                  |
| Dimensions         | [mm]                                                           | M18 x 1 / L = 70 |
| Thread designation | M18 x 1                                                        |                  |
| Materials          | stainless steel (316L/1.4404); PEI; lock nuts: stainless steel |                  |
| Tightening torque  | [Nm]                                                           | 50               |
| 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. |  |
|---------------|--------|--|

# IG510A

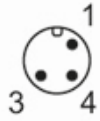


## Inductive full-metal sensor

IGK3005-BPKG/AM/US104DPS/3G/3D

### Electrical connection - plug

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



### Connection

