

# IG520A



## Inductive full-metal sensor

IGB3008BBPKG/AM/US-104/3G/3D



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 8                |
| Housing            | threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 45 |

### Application

|                         |                                                                   |
|-------------------------|-------------------------------------------------------------------|
| Special feature         | Gold-plated contacts; Increased sensing range; Full-metal housing |
| Pressure rating [bar]   | 100                                                               |
| Pressure rating [MPa]   | 10                                                                |
| Note on pressure rating | sensing face                                                      |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| 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]         | 8        |
| Real sensing range Sr [mm] | 8 ± 10 % |
| Operating distance [mm]    | 0...6.48 |
| Increased sensing range    | yes      |

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| Accuracy / deviations         |                                                                                                                                       |                   |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Correction factor             | steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2                                                           |                   |
| Hysteresis                    | [% of Sr]                                                                                                                             | 1...15            |
| Operating conditions          |                                                                                                                                       |                   |
| Ambient temperature           | [°C]                                                                                                                                  | 0...60            |
| Note on ambient temperature   | when used outside the hazardous area: 0...100°C                                                                                       |                   |
| Protection                    | IP 67; (when used outside the hazardous area: IP 65, IP 66, 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 emission                                                                                                                     | class B           |
| MTTF                          | [years]                                                                                                                               | 1217              |
| Mechanical data               |                                                                                                                                       |                   |
| Weight                        | [g]                                                                                                                                   | 63.1              |
| Housing                       | threaded type                                                                                                                         |                   |
| Mounting                      | flush mountable                                                                                                                       |                   |
| Dimensions                    | [mm]                                                                                                                                  | M18 x 1 / L = 45  |
| Thread designation            | M18 x 1                                                                                                                               |                   |
| Materials                     | stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404) |                   |
| Tightening torque             | [Nm]                                                                                                                                  | 50                |
| Full-metal housing            | yes                                                                                                                                   |                   |
| Displays / operating elements |                                                                                                                                       |                   |
| Display                       | switching status                                                                                                                      | 4 x LED, yellow   |
| Accessories                   |                                                                                                                                       |                   |
| Items supplied                | lock nuts: 2                                                                                                                          |                   |
| Remarks                       |                                                                                                                                       |                   |
| Pack quantity                 | 1 pcs.                                                                                                                                |                   |
| Electrical connection         |                                                                                                                                       |                   |



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### Connection



### Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated