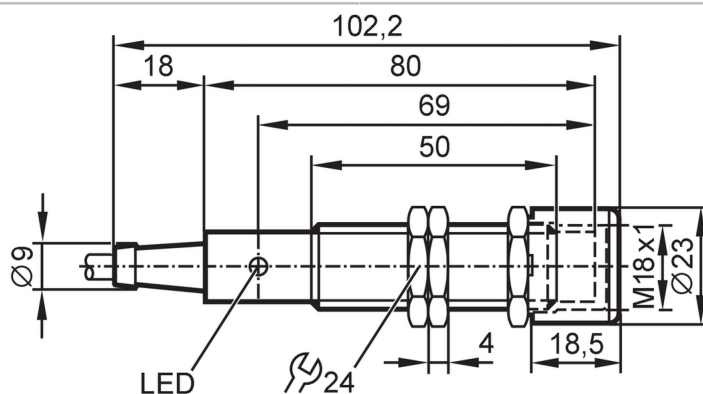


# IG515A



## Inductive sensor

IGA2008-FRKG/3D



### Product characteristics

|                    |                                               |
|--------------------|-----------------------------------------------|
| Electrical design  | PNP/NPN                                       |
| Output function    | normally open / normally closed; (selectable) |
| Sensing range [mm] | 8                                             |
| Housing            | threaded type                                 |
| Dimensions [mm]    | M18 x 1 / L = 80                              |

### Application

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Application  | For applications in hazardous areas                         |
| Installation | use in hazardous areas only with installed protective cover |

### Electrical data

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

### Outputs

|                                                      |                                               |
|------------------------------------------------------|-----------------------------------------------|
| Electrical design                                    | PNP/NPN                                       |
| Output function                                      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 4.6                                           |
| Minimum load current [mA]                            | 4                                             |
| Max. leakage current [mA]                            | 0.5                                           |
| Permanent current rating of switching output DC [mA] | 150                                           |
| Switching frequency DC [Hz]                          | 300                                           |
| Short-circuit protection                             | yes                                           |
| Type of short-circuit protection                     | pulsed                                        |
| Overload protection                                  | yes                                           |

### Detection zone

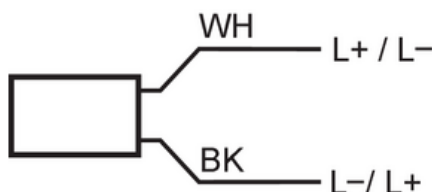
|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 8        |
| Real sensing range Sr [mm] | 8 ± 10 % |
| Operating distance [mm]    | 0...6.48 |

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| Accuracy / deviations                                                                           |                                                                                                                                           |                                |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Correction factor                                                                               | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2                                                               |                                |
| Hysteresis [% of Sr]                                                                            | 1...20                                                                                                                                    |                                |
| Switch point drift [% of Sr]                                                                    | -10...10                                                                                                                                  |                                |
| Operating conditions                                                                            |                                                                                                                                           |                                |
| Ambient temperature [°C]                                                                        | -20...60                                                                                                                                  |                                |
| Protection                                                                                      | IP 67                                                                                                                                     |                                |
| Tests / approvals                                                                               |                                                                                                                                           |                                |
| ATEX marking                                                                                    |  II 3D Ex tc IIIC T80°C Dc X                             |                                |
| 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                           |
|                                                                                                 | IEC 60255-5                                                                                                                               | 1 kV line to line, Ri: 500 Ohm |
|                                                                                                 | EN 55011                                                                                                                                  | class B                        |
| MTTF [years]                                                                                    | 1674                                                                                                                                      |                                |
| Mechanical data                                                                                 |                                                                                                                                           |                                |
| Weight [g]                                                                                      | 179                                                                                                                                       |                                |
| Housing                                                                                         | threaded type                                                                                                                             |                                |
| Mounting                                                                                        | non-flush mountable                                                                                                                       |                                |
| Dimensions [mm]                                                                                 | M18 x 1 / L = 80                                                                                                                          |                                |
| Thread designation                                                                              | M18 x 1                                                                                                                                   |                                |
| Materials                                                                                       | housing: brass white bronze coated; sensing face: PBT orange;<br>Protective cover: PA; end cap: TPU; lock nuts: brass white bronze coated |                                |
| Displays / operating elements                                                                   |                                                                                                                                           |                                |
| Display                                                                                         | switching status                                                                                                                          | 1 x LED, yellow                |
| Accessories                                                                                     |                                                                                                                                           |                                |
| Items supplied                                                                                  | lock nuts: 3 x M18                                                                                                                        |                                |
|                                                                                                 | Protective cover: 1 x (M18 / Ø 23 mm)                                                                                                     |                                |
| Remarks                                                                                         |                                                                                                                                           |                                |
| Pack quantity                                                                                   | 1 pcs.                                                                                                                                    |                                |
| Electrical connection                                                                           |                                                                                                                                           |                                |
| Cable: 2 m, PUR; 2 x 0.5 mm²                                                                    |                                                                                                                                           |                                |
| Connection                                                                                      |                                                                                                                                           |                                |
| <div></div> |                                                                                                                                           |                                |
| BK =                                                                                            | Core colours :<br>black                                                                                                                   |                                |
| WH =                                                                                            | white                                                                                                                                     |                                |

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### Electrical connection - plug

#### PNP / NO

|    |    |               |
|----|----|---------------|
| WH | L+ |               |
| BK | L- | DO (NO) (PNP) |

#### PNP / NC

|    |    |               |
|----|----|---------------|
| WH | L- | DO (NC) (PNP) |
| BK | L+ |               |

#### NPN / NO

|    |    |               |
|----|----|---------------|
| WH | L+ | DO (NO) (NPN) |
| BK | L- |               |

#### NPN / NC

|    |    |               |
|----|----|---------------|
| WH | L- |               |
| BK | L+ | DO (NC) (NPN) |

DO: digital output; NC: normally closed; NO: normally open