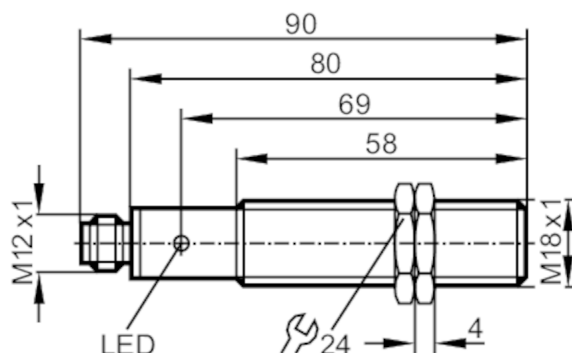




## Inductive sensor

IGA2005-FRKG/V4A/US-100-IRF/AU



### Product characteristics

|                    |                                      |
|--------------------|--------------------------------------|
| Electrical design  | PNP/NPN                              |
| Output function    | normally open / closed; (selectable) |
| Sensing range [mm] | 5                                    |
| Housing            | Threaded type                        |
| Dimensions [mm]    | M18 x 1 / L = 90                     |

### Application

|             |                         |
|-------------|-------------------------|
| System      | gold-plated contacts    |
| Application | Industrial applications |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...55 DC |
| Protection class            | II         |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |                                      |
|------------------------------------------------------|--------------------------------------|
| Electrical design                                    | PNP/NPN                              |
| Output function                                      | normally open / closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 4.6                                  |
| Minimum load current [mA]                            | 4                                    |
| Max. leakage current [mA]                            | 0.8                                  |
| Permanent current rating of switching output DC [mA] | 400                                  |
| Switching frequency DC [Hz]                          | 700                                  |
| Short-circuit protection                             | yes                                  |
| Type of short-circuit protection                     | yes (non-latching)                   |
| Overload protection                                  | yes                                  |

### Monitoring range

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

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| Accuracy / deviations         |                                                                            |                                                    |
|-------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|
| Correction factor             | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3 |                                                    |
| Hysteresis                    | [% of Sr]                                                                  | 3...15                                             |
| Switch-point drift            | [% of Sr]                                                                  | -10...10                                           |
| Operating conditions          |                                                                            |                                                    |
| Ambient temperature           | [°C]                                                                       | -25...80                                           |
| Protection                    |                                                                            | IP 67                                              |
| Tests / approvals             |                                                                            |                                                    |
| EMC                           | EN 60947-5-2                                                               |                                                    |
|                               | EN 55011                                                                   | class B                                            |
| MTTF                          | [years]                                                                    | 1835                                               |
| Mechanical data               |                                                                            |                                                    |
| Weight                        | [g]                                                                        | 68                                                 |
| Housing                       |                                                                            | Threaded type                                      |
| Mounting                      |                                                                            | flush mountable                                    |
| Dimensions                    | [mm]                                                                       | M18 x 1 / L = 90                                   |
| Thread designation            |                                                                            | M18 x 1                                            |
| Material                      |                                                                            | stainless steel (1.4571/316Ti ); sensing face: PBT |
| Displays / operating elements |                                                                            |                                                    |
| Display                       | Switching status                                                           | 1 x LED, yellow                                    |
| Accessories                   |                                                                            |                                                    |
| Items supplied                |                                                                            | lock nuts: 2                                       |
| Remarks                       |                                                                            |                                                    |
| Pack quantity                 |                                                                            | 1 pcs.                                             |

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### Electrical connection - plug

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

