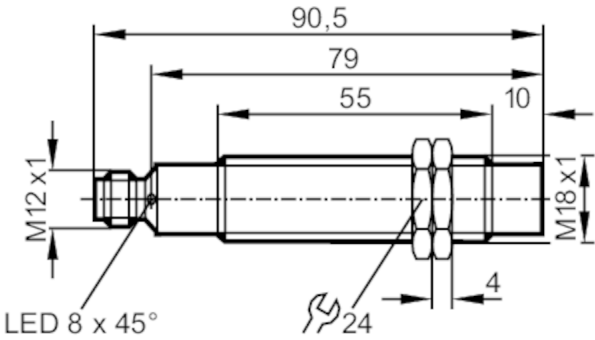


# GG505S



## Fail-safe inductive sensor

GIGA-4015-US /V4A



### Product characteristics

|                  |                  |
|------------------|------------------|
| Output function  | clock signal     |
| Enable zone [mm] | 3...6            |
| Housing          | threaded type    |
| Dimensions [mm]  | M18 x 1 / L = 90 |

### Application

|                         |                                              |
|-------------------------|----------------------------------------------|
| Special feature         | Gold-plated contacts                         |
| Type of operation       | continuous operation (maintenance-free)      |
| Safety-related function | safe state when undamped                     |
| Application             | Industrial applications / factory automation |

### Electrical data

|                               |              |
|-------------------------------|--------------|
| Operating voltage [V]         | 19.2...30 DC |
| Current consumption [mA]      | < 15         |
| Protection class              | III          |
| Reverse polarity protection   | yes          |
| Max. power-on delay time [ms] | 5000         |

### Inputs

|                                    |   |
|------------------------------------|---|
| Max. input capacitance Ci_max [nF] | 2 |
|------------------------------------|---|

### Outputs

|                                  |                  |
|----------------------------------|------------------|
| Output function                  | clock signal     |
| Output data                      | Interface type B |
| Short-circuit protection         | yes              |
| Max. capacitive load CL_max [nF] | 20               |

### Detection zone

|                                     |       |
|-------------------------------------|-------|
| Enable zone [mm]                    | 3...6 |
| Safe switch-off distance s(ar) [mm] | 15    |

### Response times

|                                                     |                    |
|-----------------------------------------------------|--------------------|
| Response time to safety request [ms]                | 20                 |
| Response time when approaching the enable zone [ms] | 200; (typical 100) |



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| Operating conditions                    |                                                                                                                          |                   |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------|
| Applications                            | class C to EN 60654-1 sheltered locations                                                                                |                   |
| Ambient temperature [°C]                | -25...70                                                                                                                 |                   |
| Note on ambient temperature             | operational life ≤ 87600 h                                                                                               |                   |
| Ambient temperature [°C]                | 10...40                                                                                                                  |                   |
| Note on ambient temperature             | operational life ≤ 175200 h                                                                                              |                   |
| Rate of temperature change [K/min]      | 0.5                                                                                                                      |                   |
| Max. relative air humidity [%]          | briefly: 5...95 %; permanent: 5...70 %                                                                                   |                   |
| Air pressure [kPa]                      | 80...106                                                                                                                 |                   |
| Ionising radiation                      | not permissible                                                                                                          |                   |
| Salt spray                              | no                                                                                                                       |                   |
| Protection                              | IP 68; IP 69K; (to EN 60529)                                                                                             |                   |
| Tests / approvals                       |                                                                                                                          |                   |
| EMC                                     | IEC 60947-5-2                                                                                                            |                   |
|                                         | IEC 60947-5-3                                                                                                            |                   |
|                                         | EN 61000-4-2 ESD                                                                                                         | 6 kV CD / 8 kV AD |
|                                         | EN 61000-4-3 HF radiated                                                                                                 | 20 V/m            |
|                                         | EN 61000-4-4 Burst                                                                                                       | 2 kV              |
|                                         | EN 61000-4-6 HF conducted                                                                                                | 10 V              |
|                                         | EN 61000-4-8                                                                                                             | 30 A/m            |
|                                         | EN 55011                                                                                                                 | class B           |
| Shock resistance                        | IEC 60947-5-2                                                                                                            |                   |
| Vibration resistance                    | IEC 60947-5-2                                                                                                            |                   |
| Safety classification                   |                                                                                                                          |                   |
| Complies with the requirements          | ISO 13849-1: 2015 category 3, PL e                                                                                       |                   |
|                                         | IEC 61508 SIL 3                                                                                                          |                   |
| Mission time TM [h]                     | ≤ 175200                                                                                                                 |                   |
| Mission time TM (additional indication) | 20 years                                                                                                                 |                   |
| PFH [1/h]                               | 1E-08                                                                                                                    |                   |
| Mechanical data                         |                                                                                                                          |                   |
| Weight [g]                              | 190                                                                                                                      |                   |
| Housing                                 | threaded type                                                                                                            |                   |
| Mounting                                | non-flush mountable                                                                                                      |                   |
| Dimensions [mm]                         | M18 x 1 / L = 90                                                                                                         |                   |
| Thread designation                      | M18 x 1                                                                                                                  |                   |
| Materials                               | stainless steel; PBT                                                                                                     |                   |
| Displays / operating elements           |                                                                                                                          |                   |
| Display                                 | operation                                                                                                                | 1 x LED, green    |
|                                         | signal                                                                                                                   | 1 x LED, yellow   |
| Accessories                             |                                                                                                                          |                   |
| Items supplied                          | lock nuts: 2                                                                                                             |                   |
| Remarks                                 |                                                                                                                          |                   |
| Remarks                                 | Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range. |                   |
|                                         | (FE360 = ST37K) 24x24x1 mm                                                                                               |                   |

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Pack quantity

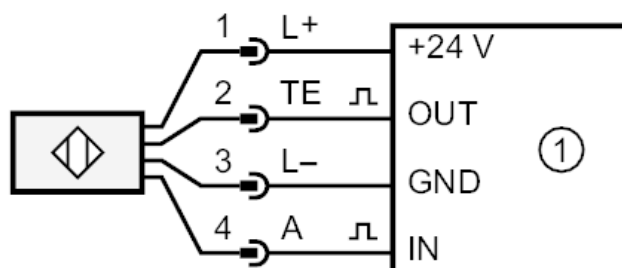
1 pcs.

### Electrical connection - plug

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



### Connection



1 = safety-related logic unit