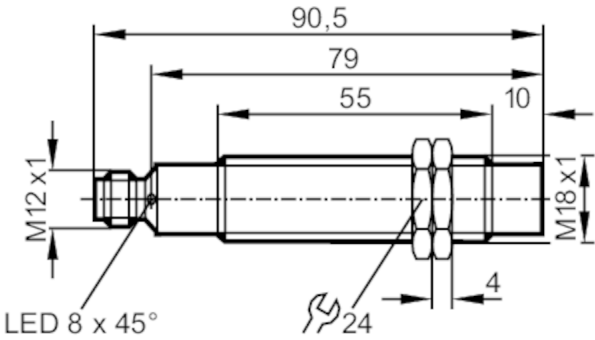


# GG505S



## 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 application                  |

### 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 switching-off distance s(ar) [mm] | 15    |

### Response times

|                                      |    |
|--------------------------------------|----|
| Response time to safety request [ms] | 20 |
|--------------------------------------|----|



## Fail-safe inductive sensor

GIGA-4015-US /V4A

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

## Operating conditions

|                                    |                                                |
|------------------------------------|------------------------------------------------|
| Applications                       | class C to EN 60654-1 weatherproof application |
| 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 |
|----------------|--------------|

# GG505S



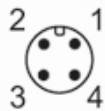
## Fail-safe inductive sensor

GIGA-4015-US /V4A

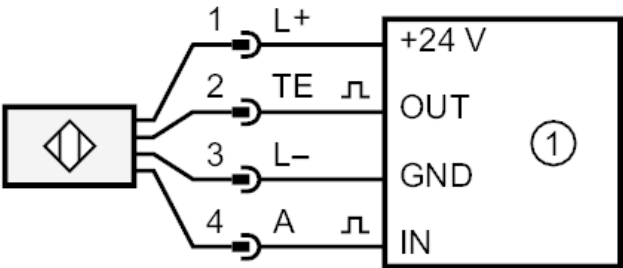
| Remarks       |                                                                                                                                                        |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks       | Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range.<br>(FE360 = ST37K) 24x24x1 mm |
| Pack quantity | 1 pcs.                                                                                                                                                 |

### Electrical connection - plug

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



### Connection



1 = safety-related logic unit