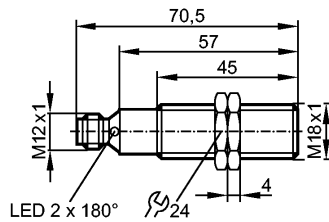


**GG712S**

GIGA4005-2PS/SIL2/US

Inductive sensors



Made in Germany



**Product characteristics**

Fail-safe inductive sensor

Metal thread M18 x 1

M12 connector

Enable zone 1...5 mm; [f] flush mountable

Complies with the requirements:  
 EN ISO 13849-1: 2008 category 2 PL d  
 IEC 61508: SIL 2  
 IEC 62061: SILcl 2

**Application**

Type of operation continuous operation (maintenance-free)

**Electrical data**

|                              |                      |
|------------------------------|----------------------|
| Electrical design            | DC PNP               |
| Operating voltage [V]        | 24 DC (19.2...30 DC) |
| Rated insulation voltage [V] | 30                   |
| Current consumption [mA]     | < 30                 |
| Protection class             | III                  |
| Reverse polarity protection  | yes                  |
| Power-on delay time [s]      | 1                    |

**Outputs**

|                          |   |
|--------------------------|---|
| Output function          | 2 x OSSD (A1 and A2)                        |
| Output voltage at 24 V   | compatible with EN 61131-2 inputs type 1, 2 |
| Voltage drop [V]         | < 2.5; (30 mA)                              |
| Current rating [mA]      | 100   |
| Short-circuit protection | yes   |

**Range**

|                                       |       |
|---------------------------------------|-------|
| Enable zone [mm]                      | 1...5 |
| Safe switching off distance s(ar)[mm] | 7     |

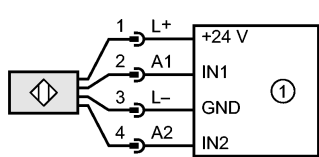
**Reaction times**

|   |      |
|---|------|
| Response time to safety request [ms]                              | ≤ 1  |
| Response time when approaching the enable zone (enable time) [ms] | ≤ 1  |
| Risk time (response time for safety-related faults) [ms]          | ≤ 20 |

## GG712S

GIGA4005-2PS/SIL2/US

Inductive sensors

| Environment                           |  |
|---------------------------------------|--|
| Applications                          | Class C to EN 60654-1 weatherproof application   |
| Ambient temperature [°C]              | -25...70, for service life ≤ 87600 h<br>10...40, for service life ≤ 175200 h   |
| Rate of temperature change [K/min]    | 0.5  |
| Max. relative air humidity [%]        | 5...95, briefly<br>5...70, permanently   |
| Air pressure [kPa]                    | 80...106   |
| Height above sea level [m]            | ≤ 2000   |
| Ionising radiation                    | not permissible  |
| Salt spray                            | no   |
| Protection                            | IP 65 / IP 67  |
| Tests / approvals                     |  |
| EMC                                   | IEC 60947-5-2  |
| Shock resistance                      | IEC 60947-5-2  |
| Vibration resistance                  | IEC 60947-5-2  |
| Safety classification                 |  |
| Mission time TM [h]                   | ≤ 175200, (20 years)   |
| Safety-related reliability PFHd [1/h] | 1.0E-07  |
| MTTFd [Years]                         | 2011   |
| DC/CCF/Cat.                           | 87 % / 70 % / 2  |
| Mechanical data                       |  |
| Mounting                              | flush mountable  |
| Housing materials                     | Brass white bronze coated; PBT   |
| Weight [kg]                           | 0.14   |
| Displays / operating elements         |  |
| Display                               | LED yellow (signal), LED green (power)   |
| Electrical connection                 |  |
| Connection                            | M12 connector; Gold-plated contacts  |
| <b>Wiring</b>                         |  <p>1: Safety-related logic unit</p>                                  |
| Accessories                           |  |
| Accessories (included)                | 2 lock nuts  |
| Remarks                               |  |
| Remarks                               | Unless stated otherwise, all data refer to the 18x18x1 mm reference target plate to IEC 60947-5-2 (FE360 = mild steel) over the whole temperature range. |
| Pack quantity [piece]                 | 1  |