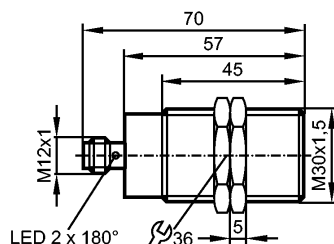


# GI712S

GI712S  
GIIA4010-2PS/SIL2/US

Inductive sensors



Made in Germany

## Product characteristics

Fail-safe inductive sensor

Metal thread M30 x 1.5

M12 connector

Enable zone 1...10 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...10
Safe switching off distance s(ar)[mm]	15

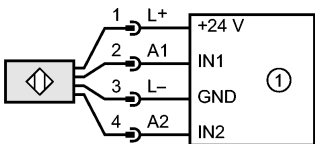
## Reaction times

Response time to safety request [ms]	≤ 10
Response time when approaching the enable zone (enable time) [ms]	≤ 1
Risk time (response time for safety-related faults) [ms]	≤ 30

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Environment	
Applications	Class C to EN 60654-1 weatherproof application
Ambient temperature [°C]	-25...70, for service life ≤ 87600 h 10...40, for service life ≤ 175200 h
Rate of temperature change [K/min]	0.5
Max. relative air humidity [%]	5...95, briefly 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]	0.22
Displays / operating elements	
Display	LED yellow (signal), LED green (power)
Electrical connection	
Connection	M12 connector; Gold-plated contacts
<b>Wiring</b> 	
1: Safety-related logic unit	
Accessories	
Accessories (included)	2 lock nuts
Remarks	
Remarks	Unless stated otherwise, all data refer to the 30x30x1 mm reference target plate to IEC 60947-5-2 (FE360 = mild steel) over the whole temperature range.
Pack quantity [piece]	1