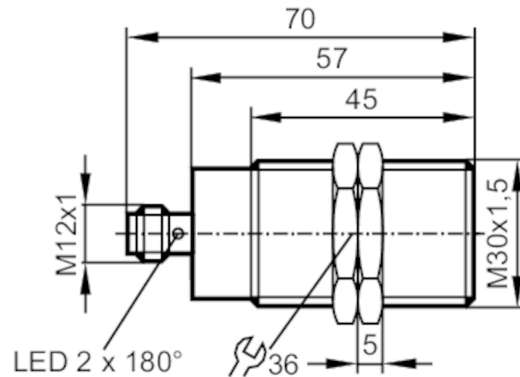


# GI712S



## Fail-safe inductive sensor

GIIA4010-2PS/SIL2/US



### Product characteristics

Electrical design	PNP
Output function	2 x OSSD (A1 and A2)
Housing	threaded type
Dimensions [mm]	M30 x 1.5 / L = 70

### Application

Special feature	Gold-plated contacts
Type of operation	continuous operation (maintenance-free)
Application	industrial applications

### Electrical data

Operating voltage [V]	19.2...30 DC
Rated insulation voltage [V]	30
Current consumption [mA]	< 30
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	1000

### Outputs

Electrical design	PNP
Output function	2 x OSSD (A1 and A2)
Max. voltage drop switching output DC [V]	2.5; (30 mA)
Permanent current rating of switching output DC [mA]	100
Output data	Interface type C class 1
Output voltage at 24 V	compatible with EN 61131-2 inputs type 1, 2
Short-circuit protection	yes
Overload protection	no
Max. capacitive load CL_max [nF]	20

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Detection zone		
Enable zone	[mm]	1...10
Safe switching-off distance s(ar)	[mm]	15
Response times		
Response time to safety request	[ms]	10
Response time when approaching the enable zone	[ms]	1
Risk time (response time for safety-related faults)	[ms]	30
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
Max. 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	
	IEC 60947-5-3	
	EN 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	
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	File number UL	E174191

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Safety classification		
ISO 13849-1		category 2, PL d
IEC 61508		SIL 2
IEC 62061		SIL cl 2
Mission time TM	[h]	≤ 175200
Mission time TM (additional indication)		20 years
Safety-related reliability PFHD	[1/h]	1.0E-07
Mechanical data		
Weight	[g]	206
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M30 x 1.5 / L = 70
Thread designation		M30 x 1.5
Materials		brass white bronze coated; PBT
Displays / operating elements		
Display	operation	1 x LED, green
	signal	1 x LED, yellow
Accessories		
Accessories (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) 30x30x1 mm
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; Contacts: gold-plated		
		

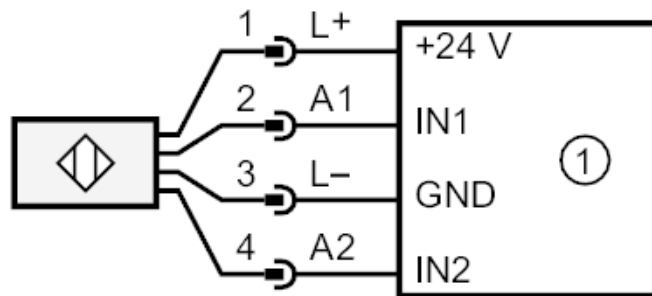
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### Connection



1: safety-related logic unit