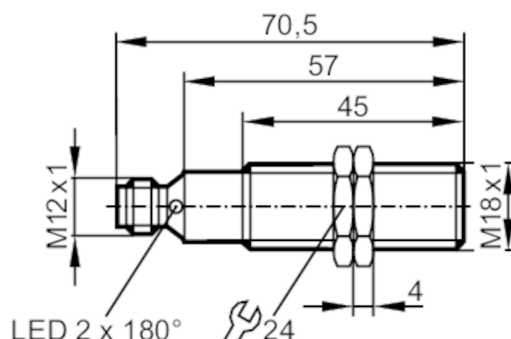


Fail-safe inductive sensor

GIGA4005-2PS/SIL2/US



Product characteristics

Electrical design	PNP
Output function	2 x OSSD (A1 and A2)
Enable zone [mm]	1...5
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 70

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
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

Detection zone

Enable zone [mm]	1...5
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Fail-safe inductive sensor

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Safe switch-off distance s(ar) [mm]	7
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Response times

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

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
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	

Safety classification

Complies with the requirements	ISO 13849-1: 2015 category 2, PL d
	IEC 61508 SIL 2
	IEC 62061 SIL 2
Mission time TM [h]	≤ 175200
Mission time TM (additional indication)	20 years
PFH [1/h]	1,0E-07

Mechanical data

Weight [g]	133
Housing	threaded type
Mounting	flush mountable
Dimensions [mm]	M18 x 1 / L = 70
Thread designation	M18 x 1

GG712S



Fail-safe inductive sensor

GIGA4005-2PS/SIL2/US

Materials	brass white bronze coated; PBT
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Displays / operating elements

Display	operation	1 x LED, green
	signal	1 x LED, yellow

Accessories

Items supplied	lock nuts: 2
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Remarks

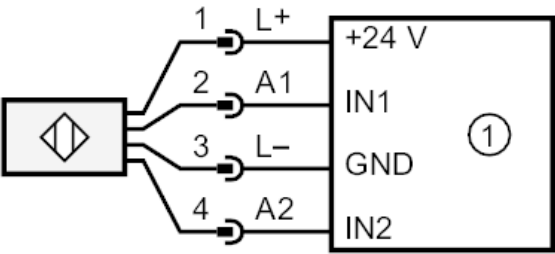
Remarks	Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range. (FE360 = ST37K) 18x18x1 mm
Pack quantity	1 pcs.

Electrical connection - plug

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



Connection



1: safety-related logic unit