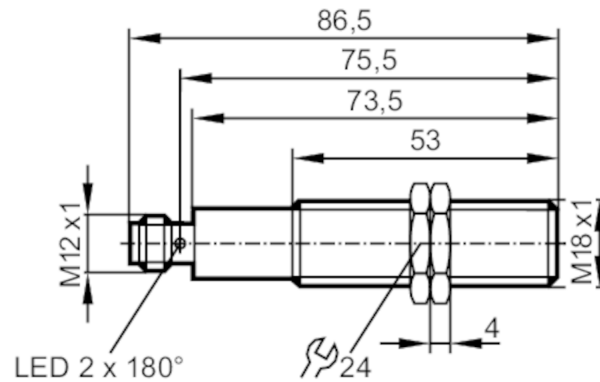


GG851S



Fail-safe inductive sensor

GIGA4005B2PO/SIL2/US



Product characteristics

Electrical design	PNP
Output function	2 x OSSD (A1 and A2)
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 86.5

Application

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

Electrical data

Operating voltage [V]	10...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)
Minimum load current [mA]	2
Permanent current rating of switching output DC [mA]	50
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
Max. capacitive load CL_max [nF]	20

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Detection zone			
Enable zone	[mm]	10...	
Safe switching-off distance s(ar)	[mm]	< 5	
Response times			
Response time to safety request	[ms]	5	
Response time when approaching the enable zone	[ms]	5	
Risk time (response time for safety-related faults)	[ms]	45	
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		IEC 60068-2-11	
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	-40...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]	162.8
Housing	threaded type
Mounting	flush mountable
Dimensions [mm]	M18 x 1 / L = 86.5
Thread designation	M18 x 1
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) 24x24x1 mm
Pack quantity	1 pcs.

Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated



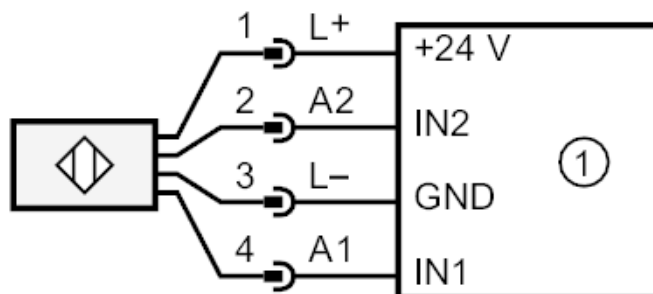
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Connection



1: safety-related logic unit