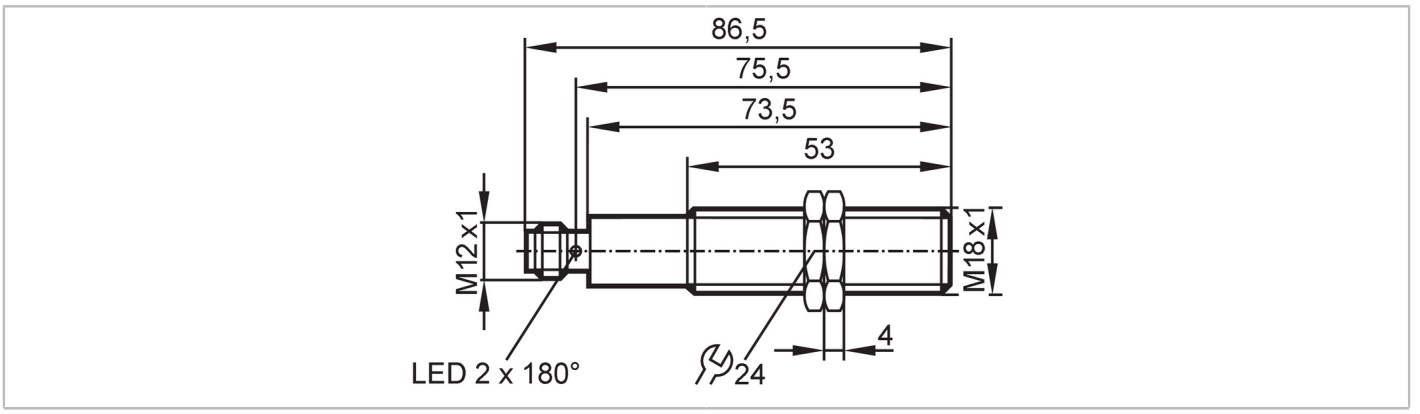
GG851S

Fail-safe inductive sensor

GIGA4005B2PO/SIL2/US



Product characteristics		
Electrical design		PNP
Output function		2 x OSSD (A1 and A2)
Enable zone	[mm]	> 10
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 86.5
Application		
Special feature		Gold-plated contacts
Type of operation		continuous operation (maintenance-free)
Safety-related sub-function		safe state when damped correctly
Application		Industrial applications / factory automation
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
Detection zone		
Enable zone	[mm]	> 10

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Safe switch-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 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		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	
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]	163.5	
Housing		threaded type	
Mounting		flush mountable	
Dimensions	[mm]	M18 x 1 / L = 86.5	
Thread designation		M18 x 1	

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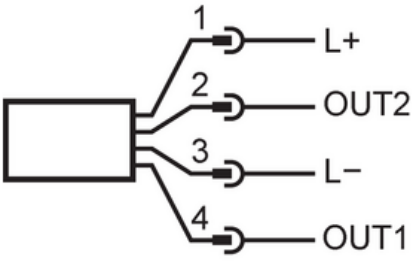
Materials	housing: brass white bronze coated; sensing face: PBT	
Displays / operating elements		
Display	operation	1 x LED, green
	signal	1 x LED, yellow
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Remarks	Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range.	
	(FE360 = ST37K) 24x24x1 mm	
Pack quantity	1 pcs.	

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



1	L+	
2	OUT2	OSSD2
3	L-	
4	OUT1	OSSD1

IN: input; OUT: Output