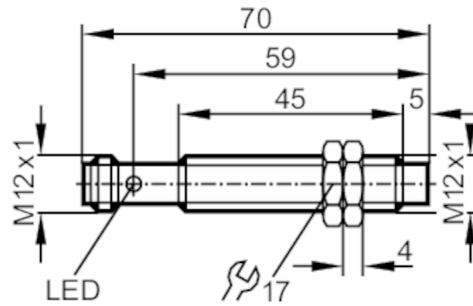


GF711S



Fail-safe inductive sensor

GIFA4004-2PS/SIL2/V4A/US



Application

Type of operation: continuous operation (maintenance-free)

Electrical data

Operating voltage [V]	19.2...30 DC
Rated insulation voltage [V]	30
Current consumption [mA]	< 20
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

Monitoring range

Enable zone [mm]	0.5...4
Safe switching-off distance s(ar) [mm]	6

Reaction 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

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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
Safety classification		
ISO 13849-1	Category 2, PL d	
IEC 61508	SIL 2	
IEC 62061	SILCL 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]	105.5	
Housing	Threaded type	
Mounting	non-flush mountable	
Dimensions [mm]	M12 x 1 / L = 70	
Thread designation	M12 x 1	
Material	stainless steel (1.4404 / 316L); PBT	

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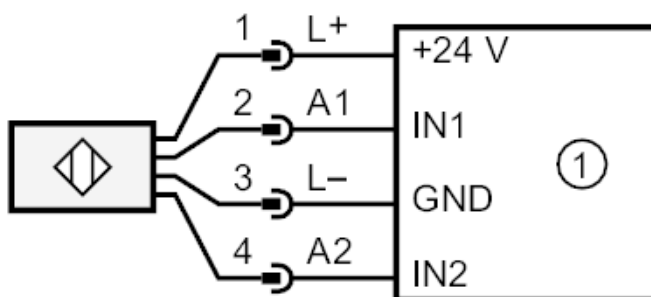
Displays / operating elements		
Display	Power	1 x LED, green
	signal	1 x LED, yellow
Accessories		
Accessories (supplied)	lock nuts: 2	
Remarks		
Remarks	Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range. (FE360 = ST37K) 12x12x1 mm	
Pack quantity	1 pcs.	

Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated



Connection



1: Safety-related logic unit