

GF762S



Fail-safe inductive sensor

GIFK4003B2PS/SIL2/AM/US



Product characteristics

Electrical design	PNP
Enable zone [mm]	0...1.5
Housing	Threaded type
Dimensions [mm]	M12 x 1 / L = 60

Application

System	gold-plated contacts; Full-metal housing
Type of operation	permanent operation
Safety-related sub-function	safe state when properly undamped
Application	Use in hygienic areas / regular cleaning processes

Electrical data

Operating voltage [V]	10...30 DC
Rated insulation voltage [V]	60
Current consumption [mA]	< 10; (24 V)
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	500

Outputs

Electrical design	PNP
Max. voltage drop switching output DC [V]	2.5
Number of OSSD outputs	2
Max. current load per OSSD output [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
Overload protection	yes
Max. capacitive load CL_max [nF]	20

Monitoring range

Enable zone [mm]	0...1.5
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Safe switch-off distance sAs [mm] (sar)	6
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Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.6 / brass: 0.7 / aluminum: 0.6 / copper: 0.3
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Reaction times

Response time when approaching the enable zone, turn-on time (ton) [ms]	20
Response time to safety request, turn-off time (toff) [ms]	20
Risk time / error handling time (toff max) [ms]	100

Operating conditions

Ambient temperature	[°C]	-25...100	
Max. height above sea level	[m]	3000	
Ionizing radiation		not permissible	
Protection		IP 65; IP 66; IP 67; IP 68; IP 69K	
Chemical media		the following media were tested for 28 days at 40 °C and with a concentration of 5 %	P3-topax 19
			P3-topax 56
			P3-topax 66
			Topactive OKTO

Tests / approvals

EMC	industrial environments	
	EN 60947-5-3	
	EN 61000-4-2 ESD	6 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	20 V/m 80...1000 MHz
	EN 61000-4-3 HF radiated	10 V/m 1,4...2,0 GHz / 3 V/m 2,0...6,0 GHz
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	2 kV
	EN 61000-4-6 HF conducted	10 V
	EN 61000-4-8	30 A/m 50/60 Hz / 1000 A/m 0 Hz
	EN 55011	class B
Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-27 Ea	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Nc	TA = 0 °C; TB = 100 °C; t1 = 30 min; t2 = 10 s 50 cycles
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes

Safety classification

Complies with the requirements	ISO 13849-1 Category 2, PL d
	IEC 61508 SIL 2, HFT 0, SC 2
Mission time TM [h]	≤ 87600
Mission time TM (additional indication)	industrial environments Temperature range -25...70 °C ≤ 175200
PFH [1/h]	< 1,5E-07

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Mechanical data		
Weight	[g]	33.05
Housing		Threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 60
Thread designation		M12 x 1
Material		threaded sleeve: stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; LED sealing: PU; lock nuts: stainless steel (1.4404 / 316L)
Tightening torque	[Nm]	15
Full-metal housing		yes
Displays / operating elements		
Display	Display switching status	4 LED, yellow
Accessories		
Items supplied		lock nuts: 2
Remarks		
Remarks		can be used in applications up to SIL 2 in accordance with IEC 62061
		Unless stated otherwise, all data refer to the reference target plate to IEC 60947-5-2 over the whole temperature range.
		(FE360 = ST37-2K) 12x12x1 mm
		the correction factors apply to an ambient temperature of 20°C
		do not use a correction factor for the safe switch-off distance sAs/(sar)
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; coding: A; Contacts: gold-plated		

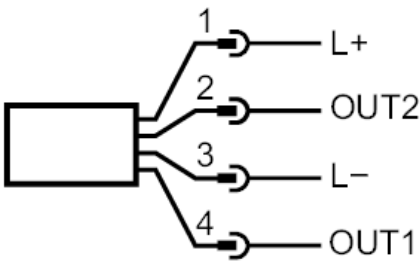
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Connection



1	L+	
2	OUT2	OSSD2
3	L-	
4	OUT1	OSSD1
OUT: Output		