

Product characteristics

Fail-safe inductive sensor

Rectangular, plastics

M12 connector

Enable zone 10...20 mm; [nf] non-flush mountable

Complies with the requirements:

EN ISO 13849-1: 2015 Category 4 PL e

IEC 61508: SIL 3

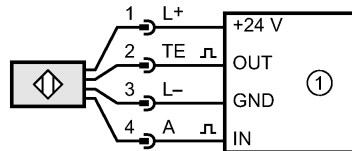
Application

Type of operation	continuous operation (maintenance-free)
Electrical data	
Electrical design	DC
Operating voltage [V]	24 DC (19.2...30 DC)
Rated insulation voltage [V]	30
Current consumption [mA]	< 15
Protection class	III
Reverse polarity protection	yes
Outputs	
Output function	Clock signal
Output data	Interface type B
Short-circuit protection	yes
Max. capacitive load CL_max [nF]	20
Monitoring range	
Enable zone [mm]	10...20
Safe switching off distance s(ar) [mm]	35
Reaction times	
Power-on delay time [s]	5
response time to safety request [ms]	≤ 20
response time when approaching the enable zone (enable time) [ms]	≤ 200; typ. 100
Environment	
Applications	Class C to EN 60654-1 weatherproof application
Ambient temperature [°C]	-25...70, for service life ≤ 87600 h 10...40, for service life ≤ 175200 h

**GM505S - Fail-safe inductive sensor - eclass: 27272401 / 27-27-24-01**

Rate of temperature change [K/min]	0.5
Max. relative air humidity [%]	5...95, briefly 5...70, permanently
Air pressure [kPa]	80...106
Protection	IP 65 / IP 67; to EN 60529
Tests / approvals	
EMC	IEC 60947-5-2 IEC 60947-5-3 EN 60947-5-2 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	
Mission time TM [h]	≤ 175200, (20 years)
Safety-related reliability PFHd [1/h]	1.1E-09
Mechanical data	
Mounting	non-flush mountable
Housing materials	PPE; diecast zinc
Weight [kg]	0.355
Displays / operating elements	
Display	LED yellow (signal), LED green (power)
Electrical connection	
Connection	M12 connector; gold-plated contacts

**Wiring**



1 = Safety-related logic unit

Remarks	
Remarks	Unless stated otherwise, all data refer to the 60x60x1 mm reference target plate to IEC 60947-5-2 (FE360 = mild steel) over the whole temperature range.
Pack quantity [piece]	1