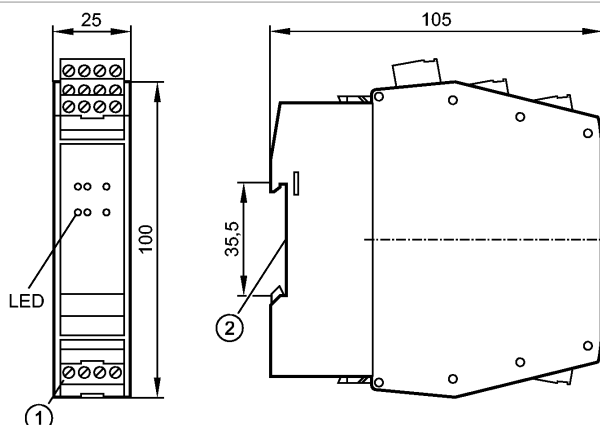


G1503S

Safety switch gear

Evaluation systems for safety and hazardous areas



- 1: Combicon connector with screw terminals
2: Mounting on DIN rail

Made in Germany



Product characteristics

Safety relay

Terminal block Phoenix Contact MSTBO

For the connection of electronic and mechanical fail-safe sensors/switches and for use as two-hand control

Complies with the requirements:
EN ISO 13849-1: category 4 PL e
IEC 61508: SIL 3
EN 574: type IIIC

Electrical data

Electrical design	Semi-conductor outputs
Operating voltage [V]	24 DC (19.2...30 DC); incl. 5 % residual ripple
Current consumption [mA]	< 500
Power-on delay time [s]	6
Overvoltage	up to 60 V DC permanently, 120 V for 200 ms

Inputs

Current through feedback contacts [mA]	> 10
Input characteristics	S34, S43: "1": > 11 V, 6 mA "0": < 5 V, < 500 µA

Outputs

Output function	2 safe short-circuit proof semiconductor outputs (positive switching), 1 signal output (positive switching)
Output data	S33: push-pull short-circuit proof "0": Isink ~ 30 mA "1": Isource ≥ 50 mA, U > 18 V S44: "0": Ires ≤ 300 µA "1": Isource ≥ 50 mA, U > 18 V Y7: "0": Ires ≤ 300 µA "1": Isource ≥ 11 V (30 mA), ≥ 15 V (15 mA)
Voltage drop [V]	≤ 2.5; at 100 mA (per OSSD)
Output current per safe output [mA]	100; (output 13, 14)
Minimum load current [mA]	10

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Short-circuit protection	yes
Overload protection	yes
Reaction times	
Duration of switch-off test pulses [µs]	≤ 500
Environment	
Ambient temperature [°C]	-25...55
Protection	IP 20
Safety classification	
Mission time TM [h]	≤ 175200
Safety-related reliability PFHd [1/h]	< 2.91E-10
MTTFd [Years]	232
DC/CCF/Cat.	99 % / 80 % / 4
Mechanical data	
Housing materials	PA (polyamide)
Weight [kg]	0.285
Displays / operating elements	
Display	Voltage green Fault red Switching status 2x yellow Input pulses 2x yellow
Electrical connection	
Connection	Combicon connector with screw terminals
Accessories	
Accessories (included)	Combicon connector with screw terminals
Remarks	
Remarks	Additional comments concerning the cULus approval (UL 508): • Maximum ambient temperature 55°C (in the control cabinet) • The safety functions were not assessed by UL. The approval has been made according to UL 508 for general applications. • Use 60/75°C copper conductors only. • For use in pollution degree 2 environment • Same polarity (phase) referred to the output contacts
Pack quantity [piece]	1
Other data	

Response time [ms]

	Release	Safety requirement
Fail-safe sensors/switches with 2 x PNP	40	30
Clocked fail-safe sensors	160	100
Two-hand control using electronic sensors	40	30
Two-hand control using mechanical switches	110	30
Mechanical fail-safe switches (e-stop)	110	30