

Safety device - PSR-MM30-2NO-2DO-24DC-SC - 2702357

Technical data

Measuring inputs

Input current range "0" signal	0 mA ... 1.5 mA
Max. permissible overall conductor resistance	150 Ω
Limit frequency	max. 2 kHz (Minimum pulse duration: 2 μs)
Protective circuit	33 V suppressor diode
Input name	Encoder input
Description of the input	TTL, HTL, Sin/Cos
Number of inputs	1 (Safety-related encoder input, RJ45)
Precision	± 2 % (in reference to the parameterized limit value)
Current consumption	< 3 mA (Per track for U _S)
Max. permissible overall conductor resistance	150 Ω
Limit frequency	max. 400 kHz
	max. 250 kHz For active diagnostic safety encoder
HTL signal form	0 V DC ... 3 V DC (Low)
	12 V DC ... 30 V DC (High)
TTL signal form	0 V DC ... 0.9 V DC (Low)
	2.5 V DC ... 5 V DC (High)
Sine/cosine signal form	2 V DC ... 3 V DC (1 V _{pp} differential signal)

Relay outputs: enabling current path

Output name	Enabling current path
Output description	2 NO contacts each in series, without delay, floating
Number of outputs	2 (safety-related N/O contacts: 13/14, 23/24)
Contact type	2 enabling current paths
Contact material	AgSnO ₂
Switching voltage	min. 12 V AC/DC
	max. 250 V AC/DC (Observe the load curve)
Limiting continuous current	6 A
Inrush current	min. 3 mA
	max. 6 A
Sq. Total current	72 A ² (observe derating)
Switching capacity	min. 60 mW
Switching frequency	max. 0.5 Hz
Mechanical service life	10x 10 ⁶ cycles
Switching capacity according to IEC 60947-5-1	4 A (24 V (DC13))
	5 A (250 V (AC15))
Output fuse	6 A gL/gG

Alarm outputs

Output description	PNP
Number of outputs	2 (Non-safety-related signal outputs: MO1, MO2)
Voltage	approx. 22 V DC (U _S - 2 V)

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Alarm outputs

Current	max. 100 mA
Maximum inrush current	500 mA ($\Delta t = 1 \text{ ms}$ at U_s)
Protective circuit/component	33 V suppressor diode
Short-circuit protection	no

Times

Typical response time at U_s	< 200 ms (For U_s autostart)
	< 150 ms (For U_s manual, monitored start)
Delay time range	0 s ... 10 s $\pm 10 \%$ (Adjustable switch-on delay for downtime contacts 23/24)
Restart time	< 1 s (Boot time)
Recovery time	< 1 s

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with IEC/EN 61810-3 (EN 50205)
Nominal operating mode	100% operating factor
Net weight	196.3 g
Mounting position	vertical or horizontal
Mounting type	DIN rail mounting
Assembly instructions	See derating curve
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Housing material	PBT
Housing color	yellow
Operating voltage display	1 x green LED (PWR)
Status display	2x LED green (OUT1, OUT2)

Connection data

Connection method	Screw connection
pluggable	Yes
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3
Torque	0.5 Nm ... 0.6 Nm

Safety-related characteristic data

Stop category	0
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