



Safety relay module

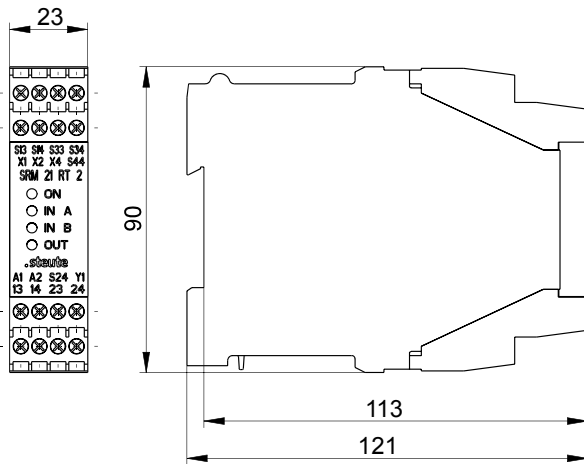
Safety relay module SRM 21 RT2

Material number: 1179203 (Material number old: 90560049)

Features/Options:

- Enclosure width: 22.5 mm
- 2 NC or 1 NC/1 NO contact can be connected
- Feedback circuit
- 2 enabling paths
- 1 transistor output
- Manual or automatic reset
- LED indicator for switching condition
- Crossed wire monitoring

Dimensions



Technical data

Applied standards	EN ISO 13849-1, EN 62061, EN 60204-1, BG-GS-ET-20, EN 60947-5-1, EN 60947-5-3, EN 61326-3-1
Enclosure	polycarbonate, black
Tightening torque	screw connection terminals: approx. 0.8 Nm
Degree of protection	enclosure IP 40, terminal block IP 20 to IEC/EN 60529, protection against contact to VBG 4
Safety-relevant data:	
EN ISO 13849-1	Performance Level PL e
Category	4
T_M	max. 20 years
$MTTF_d$	> 113 years
DC/DC_{avg}	> 99 %
EN 62061	SIL CL 3
PFH_d	3×10^{-8} 1/h
h_{op}	8 h/day
d_{op}	220 days/year
t_{zyklus}	30 s
EN 60204-1	stop category 0
Contact material	Silver, gold flashed
Mounting	DIN rail mounting
Connection	screw connection terminals with + and - screws
Cable cross-section	min. $1 \times 0.5 \text{ mm}^2$ (AWG 20) including conductor ferrules, max. $1 \times 2.5 \text{ mm}^2$ (AWG 14) including conductor ferrules, $2 \times 1.5 \text{ mm}^2$ (AWG 16) including conductor ferrules

Errors and omissions excepted.



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Rated operating voltage U_e	24 VDC \pm 15 %
Rated operating current I_e	0.125 A
Rated operating isolation voltage U_i	250 VAC
Rated impulse withstand voltage U_{imp}	4 kV
Conditional short-circuit current	100 A
Inputs	1 NC/1 NO contact or 2 NC contacts, 1 feedback circuit, 1 start input (monitored)
Outputs	2 enabling paths, 1 transistor output as signalling output
Rated operating current/voltage I_e/U_e	to EN 60947-5-1: 2 A/230 VAC; 1 A/24 VDC to CSA: B300/R300, 250 VAC
Conventional thermal current I_{the}	5 A
Utilisation category	AC-15; DC-13
Contact load capacity	min. 10 mA
Typ. input voltage	20 VDC
Max. load of signalling output	20 mA
Short-circuit protection	power supply 2A slow blow, enabling paths 6 A gG/gN fuse
Delay on energisation/deenergisation	\leq 20 ms
Risk time	\leq 0.5 s (switch-on delay)
Attendance delay t_v	< 200 ms
Mechanical life	> 50 million operations
Display	1 LED for supply voltage, 1 LED each for input A and B, 1 LED for authorisation
Degree of pollution	2
Overvoltage category	III
Ambient temperature	-22 °C ... +55 °C
Storage and shipping temperature	-22 °C ... +70 °C
Relative humidity	10 % ... 90 %
Shock resistance	15 g

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Approvals



Note

Inductive loads (contactors, relays etc.) are to be suppressed by suitable circuitry.
The safety-related data are based on a load of 24 V / 1 A / DC-1 for the enabling paths. With higher load currents for the enabling paths and other requirement rates n_{op} , the safety-related data vary from the given data and can be provided on request.

Typ. input current 22 mA

Weight 220 g