

# Safety relays - PSR-MC37-3NO-1NC-24DC-SC - 2702411

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Safety relay for emergency switching off and safety doors as well as for elevator applications up to SILCL 3, Cat. 4, PL e, 1 or 2-channel operation, automatic or manual start, cross-circuit detection, 3 enabling current paths,  $U_S = 24\text{ V DC}$ , plug-in screw terminal block

## Your advantages

- ✓ Up to Cat.4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061
- ✓ Suitable for lift applications according to EN 81-20
- ✓ Low housing width of only 22.5mm
- ✓ 3 enabling current paths, 1 signaling current path, 1 digital signal output
- ✓ Automatic and manual activation
- ✓ Cross-circuit detection



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 276960
GTIN	4055626276960
Weight per Piece (excluding packing)	183.880 g
Custom tariff number	85371098
Country of origin	Germany

## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

Width	22.5 mm
Height	112.2 mm
Depth	114.5 mm

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## Technical data

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 60 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Maximum altitude	≤ 2000 m (Above sea level)

### Power supply

Designation	A1/A2
Rated control circuit supply voltage $U_s$	24 V DC -20 % / +25 %
	19.2 V DC ... 30 V DC
Rated control supply current $I_s$	typ. 70 mA
Power consumption at $U_s$	typ. 1.68 W
Inrush current	2 A ( $\Delta t = 300 \mu s$ at $U_s$ )
Protective circuit	Surge protection Suppressor diode
	Protection against polarity reversal for rated control circuit supply voltage

### Digital inputs

Input name	Sensor circuit
	S12, S22
Description of the input	safety-related sensor inputs
	NPN (S12), NPN/PNP (S22)
Input voltage range "0" signal	0 V DC ... 5 V DC (for safe Off; at S12 and S22)
Input current range "0" signal	0 mA ... 2 mA (for safe Off; at S12 and S22)
Inrush current	< 5 mA ( $\Delta t = 500 \mu s$ , for $U_s/I_x$ at S12)
	> -5 mA ( $\Delta t = 500 \mu s$ , for $U_s/I_x$ at S22)
Current consumption	< 4 mA (with $U_s/I_x$ to S12/S22)
Filter time	max. 3 ms (at S12, S22; test pulse width; blanking pulses/dark test)
	1 s (at S12, S22; test pulse rate; blanking pulses/dark test)
	Where test pulse width ≤ 1 ms: test pulse rate = 5 x test pulse width
	max. 1 ms (at S12, S22; test pulse width; switch-on pulses/light test)
	100 ms (at S12, S22; test pulse rate; switch-on pulses/light test)
	Unless switch-on pulses/light tests are safety-related, they should be disabled.
Max. permissible overall conductor resistance	150 Ω
Input name	Start circuit
	S35
Description of the input	non-safety-related
	NPN
Number of inputs	1
Input voltage range "1" signal	19.2 V DC ... 30 V DC
Inrush current	< 10 mA ( $\Delta t = 500 \mu s$ )
Current consumption	< 0.5 mA