

Safety relays - PSR-MS21-1NO-1DO-24DC-SC - 2702192

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Safety relay for failsafe controllers up to SILCL 3, Cat. 4, PL e, 1-channel operation, automatic start, 1 enabling current path, $U_s = 24 \text{ V DC}$ according to IEC 61131-6, fixed screw terminal block

Your advantages

- ✓ Up to Cat.4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061
- ✓ Low housing width of just 6.8 mm
- ✓ Single-channel control
- ✓ 1 enabling current path, 1 digital signal output
- ✓ Couples digital output signals from failsafe controllers to I/O devices (valves, etc.) for electrical isolation and power adaptation
- ✓ Automatic activation



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 010199 |
| GTIN | 4055626010199 |
| Weight per Piece (excluding packing) | 69.000 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 |
|-------------------------|---|

Dimensions

| | |
|--------|----------|
| Width | 6.8 mm |
| Height | 93.1 mm |
| Depth | 102.5 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

| | |
|--|--|
| Rated control circuit supply voltage U_s | 24 V DC -20 % / +25 % (at A1) |
| | 19.2 V DC ... 30 V DC |
| Rated control supply current I_s | typ. 35 mA |
| Power consumption at U_s | typ. 840 mW |
| Inrush current | 150 mA ($\Delta t = 25$ ms at U_s) |
| Filter time | 2.5 ms (at A1 in the event of voltage dips at U_s) |
| | max. 3 ms (at A1; test pulse width; blanking pulses/dark test) |
| | 1 s (at A1; 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 A1; test pulse width; switch-on pulses/light test) |
| | 100 ms (at A1; test pulse rate; switch-on pulses/light test) |
| | Unless switch-on pulses/light tests are safety-related, they should be disabled. |
| Protective circuit | Surge protection Suppressor diode |
| | Protection against polarity reversal for rated control circuit supply voltage |

Digital inputs

| | |
|---|---------------------------------|
| Inrush current | < 10 mA (with U_s/I_x to S35) |
| Current consumption | < 2 mA (with U_s/I_x to S35) |
| Voltage at input/start and feedback circuit | 24 V DC -20 % / +25 % |
| Max. permissible overall conductor resistance | 150 Ω |

Relay outputs: enabling current path

| | |
|-----------------------------|---|
| Output name | Enabling current path |
| Output description | safety-related N/O contacts |
| Number of outputs | 1 (undelayed) |
| Contact type | 1 enabling current path |
| 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 (observe derating) |
| Inrush current | min. 3 mA |
| | max. 6 A |
| Sq. Total current | 36 A ² (observe derating) |
| Switching capacity | min. 60 mW |