

## Safety relays - PSR-SCP-24-230UC/ESAM4/3X1/1X2 - 2981114

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Safety relay for emergency stop and safety door monitoring up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, single or two-channel operation, 3 enabling current paths, nominal input voltage of 24 ... 230 V AC/DC, plug-in screw terminal blocks

### Why buy this product

- Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- Single and two-channel control
- With inrush current reduction, therefore suitable for coupling to failsafe controllers (PSR-ESP4)
- With wide-range input (PSR-ESAM4/3X1)



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 051644
GTIN	4046356051644
Weight per Piece (excluding packing)	305.480 g
Custom tariff number	85371099
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	45 mm
Height	99 mm
Depth	114.5 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
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## Technical data

### Ambient conditions

Ambient temperature (storage/transport)	-25 °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)
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g
Maximum altitude	≤ 2000 m (Above sea level)

### Input data

Input voltage range	24 V AC/DC ... 230 V AC/DC
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	120 mA (at 24 V DC)
	20 mA (for 120 V AC)
	10 mA (for 230 V AC)
Voltage at input/start and feedback circuit	approx. 24 V DC
Typical response time	50 ms (manual start)
	60 ms (automatic start)
Typ. starting time with $U_s$	500 ms (when controlled via A1)
Typical release time	20 ms (when controlled via S11/S12 and S21/S22)
	50 ms (at 24 V DC)
	110 ms (for 120 V AC)
	280 ms (for 230 V AC)
Concurrence input 1/2	∞
Recovery time	1 s
Status display	2 x green LEDs
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	11 Ω

### Output data

Contact type	3 enabling current paths
	1 signaling current path
Contact material	AgSnO <sub>2</sub> , + 0.2 μm Au
Minimum switching voltage	10 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A (N/O contact / N/C contact)
Inrush current, minimum	10 mA
Maximum inrush current	6 A
Sq. Total current	50 A <sup>2</sup> ( $I_{TH}^2 = I_1^2 + I_2^2 + \dots + I_N^2$ )
Interrupting rating (ohmic load) max.	192 W (24 V DC, τ = 0 ms)
	384 W (48 V DC, τ = 0 ms)
	80 W (110 V DC, τ = 0 ms)
	66 W (220 V DC, τ = 0 ms)