

# Safety relays - PSR-SCP-230AC/ESAM2/3X1/1X2/B - 2901430

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Safety relay for emergency stop and safety door monitoring up to SIL 2 or Cat. 4, PL d according to EN ISO 13849, single-channel operation, 3 enabling current paths, nominal input voltage of 230 V AC/DC, plug-in screw terminal blocks

## Product Features

- Up to Cat. 1/PL d according to ISO 13849-1, SIL CL 1 according to IEC 62061, SIL 1 according to IEC 61508
- Abhängig von der Applikation bis Kat.4/PL e nach ISO 13849-1, SIL CL 3 nach IEC 62061, SIL 3 nach IEC 61508
- Single-channel control
- Basic insulation



## Key commercial data

<b>package_quantity</b>	1
<b>GTIN</b>	4046356592185

## Technical data

Note:

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

<b>Width</b>	22.5 mm
<b>Height</b>	99 mm
<b>Depth</b>	114.5 mm

## Ambient conditions

<b>Ambient temperature (operation)</b>	-25 °C ... 55 °C
<b>Ambient temperature (storage/transport)</b>	-40 °C ... 85 °C

## Input data

<b>Nominal input voltage <math>U_N</math></b>	230 V AC
<b>Input voltage range in reference to <math>U_N</math></b>	0.85 ... 1.1
<b>Typical input current at <math>U_N</math></b>	22 mA
<b>Voltage at input/start and feedback circuit</b>	~ 24 V DC
<b>Typical response time</b>	50 ms (manual start)
<b>Typical response time</b>	300 ms (automatic start)

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## Technical data

### Input data

Typical pick-up time	300 ms (when controlled via A1 or S11/S12)
Typical release time	20 ms (when controlled via S11/S12)
Typical release time	150 ms (when controlled via A1)
Recovery time	1 s
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	50 Ω

### Output data

Contact type	3 enabling current paths
Contact type	1 signaling current path
Contact material	AgSnO <sub>2</sub> , gold-flashed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	10 V AC/DC
Limiting continuous current	6 A (N/O contact)
Limiting continuous current	5 A (N/C contact)
Maximum inrush current	6 A
Inrush current, minimum	10 mA
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2)$
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
Interrupting rating (ohmic load) max.	230 W (at 48 V DC)
Interrupting rating (ohmic load) max.	68 W (at 110 V DC)
Interrupting rating (ohmic load) max.	88 W (at 220 V DC)
Interrupting rating (ohmic load) max.	2000 VA (for 250 V AC)
Maximum interrupting rating (inductive load)	48 W (at 24 V DC)
Maximum interrupting rating (inductive load)	40 W (at 48 V DC)
Maximum interrupting rating (inductive load)	35 W (at 110 V DC)
Maximum interrupting rating (inductive load)	33 W (at 220 V DC)
Switching capacity min.	100 mW
Output fuse	10 A gL/gG NEOZED (enabling current paths)
Output fuse	6 A gL/gG NEOZED (signaling current paths)

### General

Mechanical service life	Approx. 10 <sup>7</sup> cycles
Mounting position	Any
Category according to EN 13849-1	1 ([NO ASSET AVAILABLE: TXB,7278399,P])
Stop category	0 (undelayed contacts)
Name	Air and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated surge voltage / insulation	4 kV / basic insulation (safe isolation, reinforced insulation, and 6 kV between A1-A2/logic/enabling and signaling current paths)
Rated insulation voltage	250 V AC
Pollution degree	2

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## Technical data

### General

<b>Surge voltage category</b>	III
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### Connection data

<b>Conductor cross section solid min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section solid max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section stranded min.</b>	0.2 mm <sup>2</sup>
<b>Conductor cross section stranded max.</b>	2.5 mm <sup>2</sup>
<b>Conductor cross section AWG/kcmil min.</b>	24
<b>Conductor cross section AWG/kcmil max</b>	12
<b>Stripping length</b>	7 mm
<b>Screw thread</b>	M3
<b>Connection method</b>	Screw connection

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27371102
<b>eCl@ss 4.1</b>	27371102
<b>eCl@ss 5.0</b>	27371901
<b>eCl@ss 5.1</b>	27371901
<b>eCl@ss 6.0</b>	27371819
<b>eCl@ss 7.0</b>	27371819
<b>eCl@ss 8.0</b>	27371819

### ETIM

<b>ETIM 3.0</b>	EC001449
<b>ETIM 4.0</b>	EC001449
<b>ETIM 5.0</b>	EC001449

### UNSPSC

<b>UNSPSC 6.01</b>	30211901
<b>UNSPSC 7.0901</b>	39121501
<b>UNSPSC 11</b>	39121501
<b>UNSPSC 12.01</b>	39121501
<b>UNSPSC 13.2</b>	39121501

## approvals

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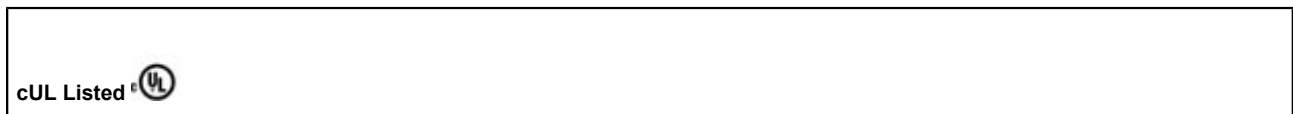
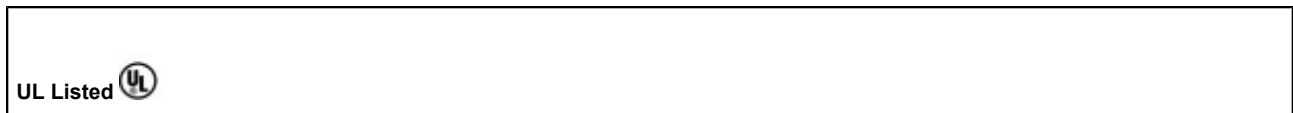
GOST / UL Listed / cUL Listed / Functional Safety / cULus Listed /

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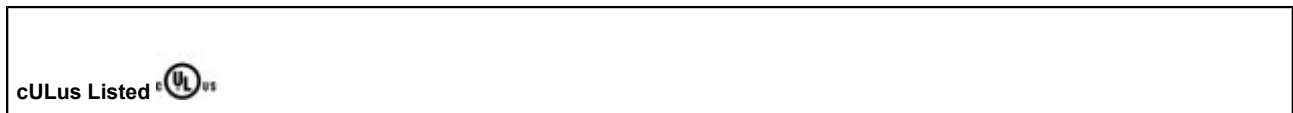
### Approval details

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approvals



Functional Safety



## Drawings

Circuit diagram

