

## Safety device - PSR-SCP- 24DC/RSM4/4X1 - 2981538

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Two-channel speed and downtime monitor up to SIL 3 or Cat. 4, PL e according to EN ISO 13849, 4 N/O contacts, suitable for connecting incremental encoders and initiators, plug-in screw connection terminal blocks, width: 45 mm

### Product Features

- ✓ Easy configuration via software (PSR-RSM4)
- ✓ Up to SIL 3 according to IEC 61508
- ✓ Standard sensors can be connected



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	346.8 g
Custom tariff number	90328900
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
Ambient temperature (storage/transport)	-40 °C ... 70 °C

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### Technical data

#### Ambient conditions

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	max. 2000 m (Above sea level)

#### Input data

Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.85 ... 1.1
Typical input current at $U_N$	100 mA
Voltage at input/start and feedback circuit	approx. 24 V DC
Typical response time	15 ms
Typical release time	12 ms
Recovery time	1 s
Status display	Green LED
Limit frequency	2 kHz (IN1, IN2)
	400 kHz (RJ45)

#### Output data

Contact type	4 enabling current paths
Contact material	AgNi10, + 5 $\mu$ m Au
Minimum switching voltage	100 mV AC/DC
Maximum switching voltage	250 V AC/DC (when the gold layer is destroyed)
	60 V AC/DC (With gold layer existing)
Limiting continuous current	5 A
	100 mA (alarm outputs)
Inrush current, minimum	1 mA
Maximum inrush current	6 A
Sq. Total current	$42.25 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2)$
Interrupting rating (ohmic load) max.	67 W (24 V DC, $\tau = 0$ ms)
	36 W (48 V DC, $\tau = 0$ ms)
	43 MW (110 V DC, $\tau = 0$ ms)
	68 MW (220 V DC, $\tau = 0$ ms)
Switching capacity min.	1 mW
Output fuse	6 A gL

#### General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Mechanical service life	> 50 x 10 <sup>6</sup> cycles
Net weight	365 g

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### Technical data

#### General

Mounting type	DIN rail mounting
Assembly instructions	In rows with zero spacing
Degree of protection	IP54
	IP20
Min. degree of protection of inst. location	IP54
Mounting position	any
Control	Two-channel
Parameters as per EN ISO 13849	4
Stop category	0
Parameters for IEC 61508	3
Interfaces	Encoder

#### Connection data

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

#### Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	EN 60664/VDE 0110
Rated insulation voltage	250 V
Rated surge voltage/insulation	4 kV / Basic isolation, (safe isolation, reinforced insulation and 6 kV between input circuit and enabling current paths.)
Pollution degree	2
Overvoltage category	III
Safety Integrity Level Claim Limit (SIL CL)	3

#### Classifications

##### eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102

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### Classifications

#### eCl@ss

eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371811

#### ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001448

#### UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501

### Approvals

#### Approvals

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#### Approvals

UL Listed / cUL Listed / Functional Safety / Functional Safety / UL Listed / cUL Listed / EAC / EAC / cULus Listed

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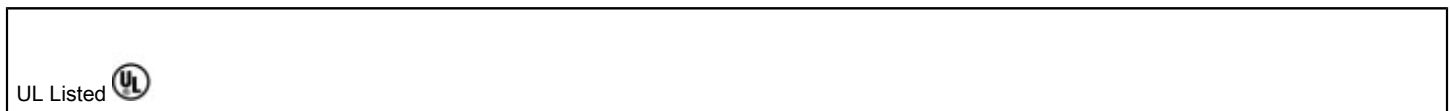
#### Ex Approvals

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#### Approvals submitted

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#### Approval details



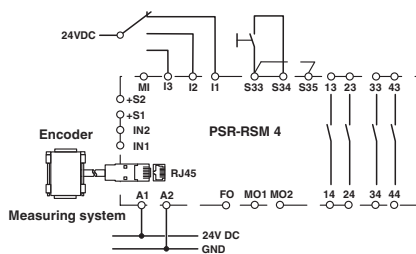
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## Approvals

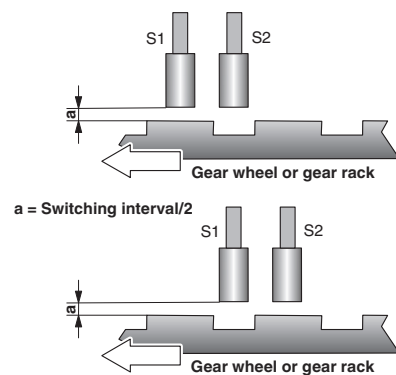
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Functional Safety
Functional Safety
UL Listed
cUL Listed
EAC
EAC
cULus Listed

## Drawings

Diagram

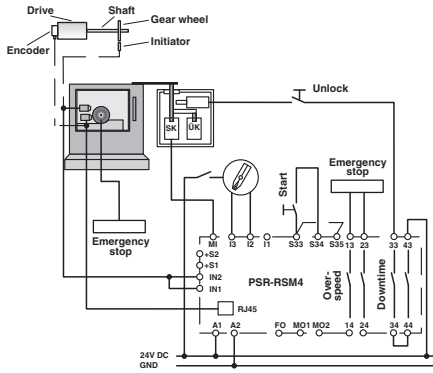


Diagram

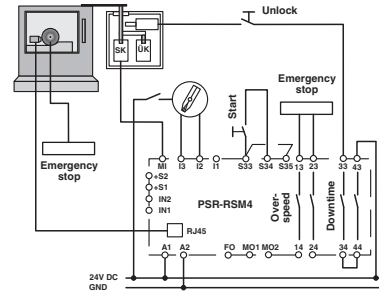


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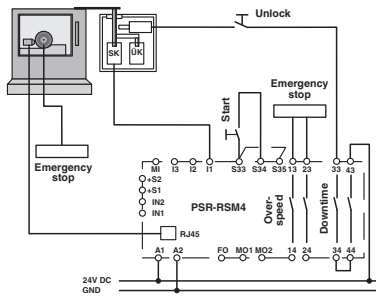
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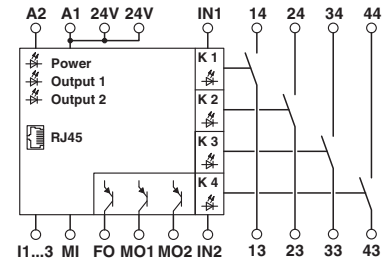
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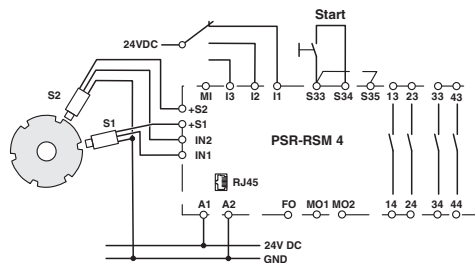
Diagram



Circuit diagram



Circuit diagram



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Application drawing

