## Extract from the online catalog

## PSR-SCP- 24UC/ESA2/4X1/1X2/B

Order No.: 2963802
http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2963802

1-channel safety relay for emergency off and safety door circuits, $4 \mathrm{~N} /$ O contacts, $1 \mathrm{~N} / \mathrm{C}$ contact, undelayed, automatic and manual start for category 2 / EN 954-1, pluggable connecting terminal blocks, width: 22.5 mm

| Commercial data |  |
| :--- | :--- |
| EAN | 4017918892661 |
| Pack | 1 Pcs. |
| Customs tariff | 85364900 |
| Weight/Piece | 0.2468 KG |
| Catalog page information | Page 21 (IF-2007) |



| Product notes |
| :--- |
| WEEE/RoHS-compliant since: |
| 05/05/2008 |

## http://

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## Technical data

## Input data

| Nominal input voltage $U_{N}$ | $24 \mathrm{~V} \mathrm{AC/DC}$ |
| :--- | :--- |
| Input voltage range in reference to $U_{N}$ | $0.85 \ldots 1.1$ |


| Typical input current at $\mathrm{U}_{\mathrm{N}}$ | 140 mA AC |
| :---: | :---: |
|  | 65 mA DC |
| Voltage at input/start and feedback circuit | Approx. 24 V DC |
| Typical response time | 65 ms |
| Typical release time | 45 ms |
| Recovery time | 1 s |
| Max. permissible overall conductor resistance | Approx. $22 \Omega$ (Input and start circuits at $\mathrm{U}_{\mathrm{N}}$ ) |
| Output data |  |
| Contact type | 4 enabling current paths, 1 signaling current path |
| Contact material | $\mathrm{AgSnO}_{2},+0.2 \mu \mathrm{~m} \mathrm{Au}$ |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 15 V AC/DC |
| Limiting continuous current | 6 A (N/O contact) |
|  | 3 A (N/C contact) |
| Maximum inrush current | 6 A |
| Inrush current, minimum | 25 mA |
| Sq. Total current | $72 \mathrm{~A}^{2}\left(\mathrm{ITH}^{2}=\mathrm{I}_{1}{ }^{2}+\mathrm{I}_{2}{ }^{2}+\mathrm{I}_{3}{ }^{2}+\mathrm{I}_{4}{ }^{2}\right)$ |
| Interrupting rating (ohmic load) max. | $144 \mathrm{~W}(24 \mathrm{~V}$ DC, $\mathrm{T}=0 \mathrm{~ms}$, N/C contact 51/52: 72 W ) |
|  | 288 W (48 V DC, $\mathrm{\tau}=0 \mathrm{~ms}, \mathrm{~N} / \mathrm{C}$ contact 51/52: 144 W ) |
|  | $110 \mathrm{~W}(110 \mathrm{~V}$ DC, $\mathrm{T}=0 \mathrm{~ms})$ |
|  | 88 W (220 V DC, $\mathrm{T}=0 \mathrm{~ms}$ ) |
|  | $1500 \mathrm{VA}(250 \mathrm{~V}$ AC, $\mathrm{t}=0 \mathrm{~ms}$, N/C contact 51/52: 750 VA ) |
| Maximum interrupting rating (inductive load) | $42 \mathrm{~W}(24 \mathrm{~V} \mathrm{DC}, \mathrm{t}=40 \mathrm{~ms})$ |
|  | 42 W (48 V DC, $\mathrm{t}=40 \mathrm{~ms}$ ) |
|  | 42 W (110 V DC, $\mathrm{T}=40 \mathrm{~ms}$ ) |
|  | $42 \mathrm{~W}(220 \mathrm{~V} C, \mathrm{t}=40 \mathrm{~ms})$ |
| Switching capacity min. | 0.4 W |
| Output fuse | 6 A fast blow |
|  | 4 A circuit-breaker C |

## General data

| Length | 99 mm |
| :--- | :--- |
| Width | 22.5 mm |
| Height | 114.5 mm |
| Ambient temperature (operation) | $-20^{\circ} \mathrm{C} \ldots 55^{\circ} \mathrm{C}$ |


| Ambient temperature (storage/transport) | $-20^{\circ} \mathrm{C} \ldots 70^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Service life mechanical | Approx. $10^{7}$ cycles |
| Mounting position | Any |
| Category in acc. with EN 954-1 | 2 |
| Stop category | 0 |
| Name | Air and creepage distances between the power circuits |
| Standards/regulations | DIN EN 50178/VDE 0160 |
| Rated surge voltage / insulation | $4 \mathrm{kV} /$ basic isolation, (safe isolation, increased isolation and 6 kV <br> between input circuit and output contact current paths (N/O) and <br> between N/C and output contact current paths (N/O.) |
| Rated insulation voltage | 250 V |
| Pollution degree | 2 |
| Surge voltage category | III |

## Connection data

| Conductor cross section solid min. | $0.2 \mathrm{~mm}^{2}$ |
| :--- | :--- |
| Conductor cross section solid max. | $2.5 \mathrm{~mm}^{2}$ |
| Conductor cross section stranded min. | $0.2 \mathrm{~mm}^{2}$ |
| Conductor cross section stranded max. | $2.5 \mathrm{~mm}^{2}$ |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 12 |
| Stripping length | 7 mm |
| Screw thread | M3 |
| Type of connection | Screw connection |

## Certificates / Approvals



Certification
BG, CUL Listed, GOST, UL Listed

## Drawings

## Circuit diagram



1 = logics


a = RESET
b = Emergency stop
One-channel emergency stop circuit with
manual activation and monitored contact expansion, suitable up to safety category 2.
One-channel safety door monitoring with automatic activation, suitable up to safety category 2.

