


PSR – Phoenix Safety Relay PSR-THC4

- Two-hand and safety door control module according to EN 574 Type IIIC
- Safety Category 4, EN 954-1
- Plug-in screw-cage or spring-cage terminal blocks
- Two-channel circuit
- Safe isolation
- Cross-circuit detection
- Housing width 22.5 mm (0.886 in.)
- Two enable contacts
- One signaling contact
- Approvals:  US Listed;

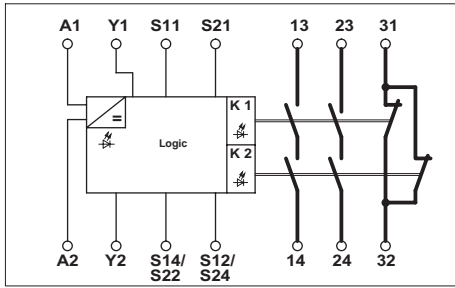


1. Short Description

The PSR-...-24UC/THC4/2x1/1x2 safety relays can be used to monitor two-hand control systems according to EN 574 Type IIIC and safety doors.

The module monitors the simultaneity of both inputs in < 0.5 seconds. In this way, up to Safety Category 4 can be achieved in safety circuits according to VDE 0113 Part 1 and EN 954-1. External contactors or expansion modules can be monitored. The module has two enable current paths and one signaling current path with Stop Category 0 according to EN 60204-1/ VDE 0113 Part 1.

2. Technical Data



PSR-THC4



	solid	flexible	
	[mm ²]		AWG
Connection data:	0.2 - 2.5	0.2 - 2.5	25 - 14
Stripping length:	Screw-cage version 7 mm (0.28 in.)		
	Spring-cage version 10 mm (0.39 in.)		

Housing width 22.5 mm (0.886 in.)

Description	
Safety relay, Category 4	Screw-cage Spring-cage

Type	Order No.	Pcs. Pkt.
PSR-SCP-24UC/THC4/2X1/1X2	29 63 72 1	1
PSR-SPP-24UC/THC4/2X1/1X2	29 63 98 3	1

Technical Data

Input Data

Nominal input voltage U_N
 Permissible range
 Typical current consumption at U_N
 Voltage at input, start, and feedback circuit
 Typical response time (K1, K2) at U_N
 Typical release time (K1, K2) at U_N
 Simultaneity input 1/2
 Recovery time

24 V AC/DC
 0.85 - 1.1 x U_N
 125 mA AC, 60 mA DC
 24 V DC, approximately
 50 ms
 20 ms
 < 0.5 s
 < 1 s

Output Data

Contact version

Contact material
 Maximum switching voltage
 Minimum switching voltage
 Limiting continuous current
 Maximum inrush current
 Minimum switching current
 Maximum shutdown power

2 enable current paths,
 1 signaling current path
 Silver stannic oxide, gold-flashed (AgSnO₂ 0.2 μm Au)
 250 V AC/DC
 15 V AC/DC
 6 A (Form A contact/Form B contact)
 6 A
 25 mA
 Ohmic load
 Inductive load
 $\tau = 0$ ms
 $\tau = 40$ ms
 144 W
 42 W
 48 V DC
 288 W
 42 W
 110 V DC
 110 W
 42 W
 220 V DC
 88 W
 42 W
 250 V AC
 1500 VA
 0.4 W
 10⁷ cycles, approximately
 24 V (DC 13) 4 A
 24 V (DC 13) 2.5 A
 6 A fast-blow

Minimum switching power
 Mechanical life
 Breaking capacity according to
 DIN EN 60947-5-1/VDE 0660 Part 20
 Short-circuit protection of the output circuits,
 external

Cycles: 360/h
 3600/h

General Data

Permissible ambient operating temperature	-20°C to +55°C (-4°F to +131°F)
Nominal operating mode	100% ED
Degree of protection	According to DIN EN 60529/VDE 0470 Part 1
- Housing	IP 40
- Connection terminal blocks	IP 20
- Mounting location	IP 54, minimum
Mounting position	Any
Mounting	Can be mounted without spacing
Air and creepance distances between circuits	According to DIN EN 50 178:1998-04, safe isolation, reinforced insulation
Impulse voltage withstand level	6 kV
Degree of pollution	2
Surge Voltage Category	III
Dimensions (W x H x D)	22.5 mm x 99 mm x 114.5 mm (0.886 x 3.898 x 4.508 in.)
Cable cross section	0.2 - 2.5 mm ² (25 - 14 AWG)
Housing material	Polyamide PA, not reinforced

Note: When operating relay modules the operator must meet the requirements for emitted interference for electrical and electronic equipment (EN 50081-2) on the contact side and, if required, take appropriate measures.

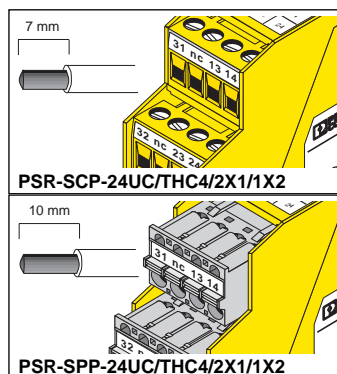
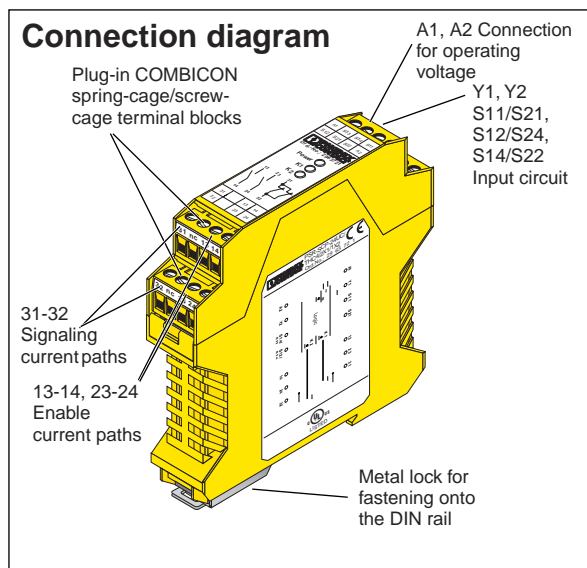
3. Connection Notes and Safety Instructions

3.1. Safety Instructions

- Please observe the safety regulations of electrical engineering and industrial safety and liability associations.
- Disregarding these safety regulations may result in death or serious damage to persons or property.
- Before working on the device, disconnect the power.
- Startup, mounting, modifications, and upgrades should only be carried out by a skilled electrical engineer.
- Protective covers must not be removed when operating electrical switching devices.
- During operation, parts of electrical switching devices carry hazardous voltages.
- Keep the instruction sheet in a safe place.
- In the event of an error, replace the device immediately.

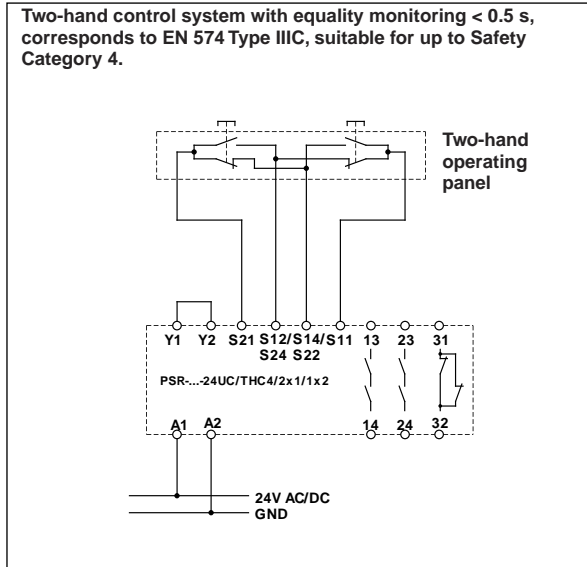
3.2. Connection Notes

To maintain the UL, use copper cables, which are designed for operating temperatures of 75°C (167°F). For reliable and safe contacts, strip the connector ends accordingly.

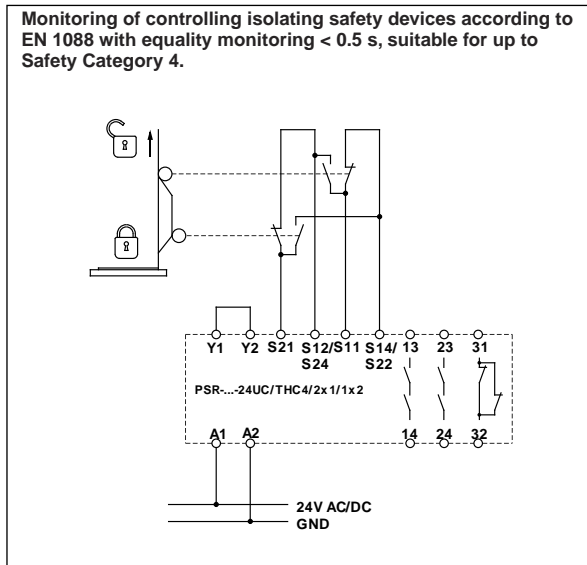


4. Connection Examples

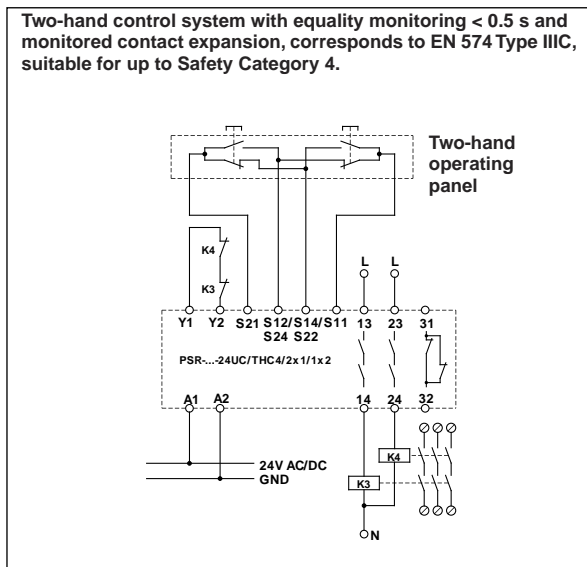
Two-hand control system with equality monitoring < 0.5 s, corresponds to EN 574 Type IIIC, suitable for up to Safety Category 4.



Monitoring of controlling isolating safety devices according to EN 1088 with equality monitoring < 0.5 s, suitable for up to Safety Category 4.



Two-hand control system with equality monitoring < 0.5 s and monitored contact expansion, corresponds to EN 574 Type IIIC, suitable for up to Safety Category 4.





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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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