



Automatización Eléctrica
Especialistas en Automatización

At the end of this document you will find links to products related to this catalog. You can go directly to our shop by clicking [HERE](#). [HERE](#)

Safety relays - PSR-MS60-2NO-24DC-SC - 2904958

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Safety relay for emergency stop, safety doors, and light grids up to SILCL 3, Cat. 4, PL e, 2-channel operation, automatic start, 2 enabling current paths (1-channel), $U_S = 24 \text{ V DC}$, fixed screw terminal block

Why buy this product

- Up to Cat.4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061
- Low housing width of just 6.8 mm
- Two-channel control
- 2 single-channel enabling current paths
- Automatic activation



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 904889

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

Dimensions

Width	6.8 mm
Height	93.1 mm
Depth	102.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)

Safety relays - PSR-MS60-2NO-24DC-SC - 2904958

Technical data

Ambient conditions

Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g
Maximum altitude	max. 2000 m (Above sea level)

Input data

Rated control circuit supply voltage U_s	24 V DC -15 % / +10 %
Power consumption at U_s	typ. 0.96 W
Rated control supply current I_s	typ. 40 mA
Typical inrush current	4.5 A ($\Delta t = 120 \mu s$ at U_s)
Current consumption	< 5 mA (with U_s/I_x to S12)
	< 5 mA (with U_s/I_x to S22)
Voltage at input/start and feedback circuit	24 V DC -15 % / +10 %
Typical response time	< 175 ms
Typical pick-up time	< 250 ms (when controlled via A1)
Typical release time	< 20 ms (when controlled via A1 or S12 and S22.)
Recovery time	< 500 ms
Status display	2 x green LEDs
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	150 Ω
Filter time	1 ms (at A1 in the event of voltage dips at U_s)
	max. 1.5 ms (Test pulse duration)
	min. 7.5 ms (Test pulse rate)
	Test pulse rate = 5 x Test pulse width

Output data

Contact type	2 enabling current paths
Contact material	AgSnO ₂
Minimum switching voltage	10 V AC/DC
Maximum switching voltage	250 V AC/DC (Observe the load curve)
Limiting continuous current	6 A (observe derating)
Inrush current, minimum	3 mA
Maximum inrush current	6 A
Sq. Total current	72 A ² (observe derating)
Switching capacity	min. 30 mW
Output fuse	6 A gL/gG (N/O contact)
	4 A gL/gG (for low-demand applications)

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with IEC/EN 61810-3 (EN 50205)
Mechanical service life	10 x 10 ⁶ cycles

Safety relays - PSR-MS60-2NO-24DC-SC - 2904958

Technical data

General

Net weight	69 g
Mounting type	DIN rail mounting
Assembly instructions	See derating curve
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Mounting position	vertical or horizontal
Control	Two-channel
Housing material	PBT

Connection data

Connection method	Screw connection
pluggable	no
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Conductor cross section AWG min.	26
Conductor cross section AWG max.	12
Stripping length	12 mm
Screw thread	M3

Safety-related characteristic data

Stop category	0
Designation	IEC 61508 - High demand
Safety Integrity Level (SIL)	3
Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	3
Designation	EN ISO 13849
Performance level (PL)	e (4 A DC13; 5 A AC15; 8760 switching cycles/year)
Category	4
Designation	EN 62061
Safety Integrity Level Claim Limit (SIL CL)	3

Standards and Regulations

Shock	15g
Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Safe isolation, reinforced insulation 6 kV between input circuit and enabling current path (13/14) and enabling current path (23/24) Basic insulation 4 kV between all current paths and housing
Degree of pollution	2
Overvoltage category	III

Safety relays - PSR-MS60-2NO-24DC-SC - 2904958

Technical data

Standards and Regulations

Vibration (operation)	10 Hz ...150 Hz, 2g
Conformance	CE-compliant

Classifications

eCl@ss

eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 8.0	27371819

ETIM

ETIM 5.0	EC001449
----------	----------

Approvals

Approvals

Approvals

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

Ex Approvals

Approvals submitted

Approval details

UL Listed

cUL Listed

Functional Safety

EAC

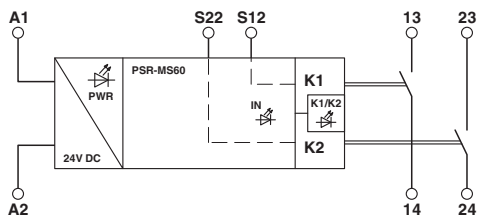
Safety relays - PSR-MS60-2NO-24DC-SC - 2904958

Approvals

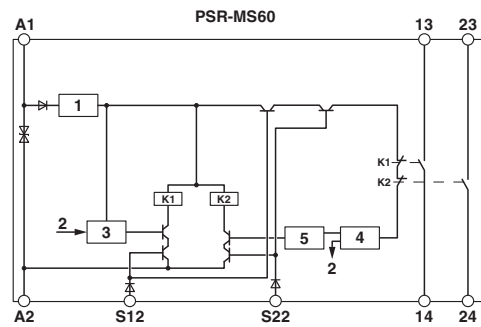


Drawings

Block diagram

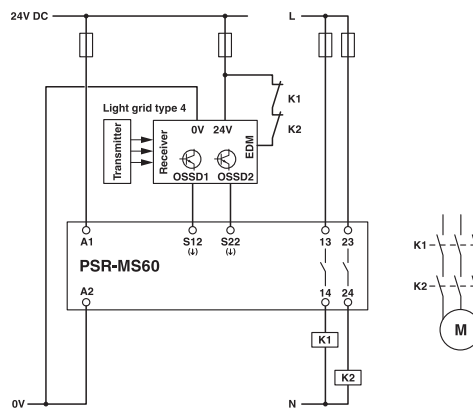


Block diagram



- Key:
- 1 = Voltage limitation
 - 2 = Channel 1
 - 3 = Control circuit channel 1
 - 4 = Start channel 1 and 2
 - 5 = Control circuit channel 2
 - K1, K2 = Force-guided elementary relays

Application drawing



Phoenix Contact 2016 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>



Below is a list of articles with direct links to our shop Electric Automation Network where you can see:

- Quote per purchase volume in real time.
- Online documentation and datasheets of all products.
- Estimated delivery time enquiry in real time.
- Logistics systems for the shipment of materials almost anywhere in the world.
- Purchasing management, order record and tracking of shipments.

To access the product, [click on the green button.](#)

Product	Code	Reference	Product link
Safety relay for emergency stop, safety doors, and light grids up to SILCL 3, Cat. 4, PL e, 2-channel operation, automatic start, 2 enabling current paths (1-channel), US = 24 V DC, fixed screw terminal block	2904958	PSR-MS60-2NO-24DC-SC	Buy on EAN