

Safety relays - PSR-SCP- 24DC/MXF1/4X1/2X2/B - 2902725

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://download.phoenixcontact.com>)



Multifunctional safety relay for emergency stop and safety doors up to SIL 3, Cat. 4, PL e, automatically or manually monitored activation, 4 N/O contacts, 3 safety functions, 2 shutdown levels, plug-in screw terminal block

Your advantages

- ✓ Up to Cat.4/PL e according to EN ISO 13849-1, SILCL 3 according to EN 62061, SIL 3 according to IEC 61508
- ✓ 3 safety functions in one device
- ✓ Low housing width of only 22.5mm
- ✓ No software configuration required
- ✓ Also available with push-in connection



Key commercial data

package_quantity	1
GTIN	4046356673006

Technical data

Note

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

Dimensions

Width	22.5 mm
Height	112.2 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 45 °C (see derating curve)
Ambient temperature (storage/transport)	-25 °C ... 85 °C
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	≤ 2000 m (Above sea level)

Input data

Nominal input voltage U _N	24 V DC
--------------------------------------	---------

Safety relays - PSR-SCP- 24DC/MXF1/4X1/2X2/B - 2902725

Technical data

Input data

Input voltage range in reference to U _N	0.85 ... 1.1
Typical input current at U _N	125 mA (with actuated relays)
Typical input current at U _N	55 mA (Two-channel 24 V/0 V + max. 200 mA control (message outputs 32/62) with non-actuated relays)
Current consumption	typ. 5 mA (I _{max} /I _x inputs)
Current consumption	20 mA (in electric torque)
Voltage at input/start and feedback circuit	24 V -15 %; +10 % (first channel: 24 V; second channel: 0 V)
Typical response time	175 ms (monitored/manual start)
Typical response time	250 ms (automatic start)
Typ. starting time with U _s	250 ms (when controlled via A1)
Typical release time	25 ms (when controlled via S11/I1,I3,I5 and S21/I2,I4,I6)
Typical release time	20 ms (when controlled via A1)
Concurrence input 1/2	∞
Recovery time	1 s (Availability time after activation of sensor circuit: 100ms)
Status display	5 green LEDs
Maximum switching frequency	0.5 Hz
Max. permissible overall conductor resistance	100 Ω
Filter time	max. 1.5 ms (Test pulse duration; for all equivalent inputs)
Filter time	min. 7.5 ms (Test pulse rate; for all equivalent inputs)

Output data

Contact type	4 enabling current paths
Contact type	2 semiconductor alarm outputs
Contact material	AgCuNi, +0,2 -0,4 μm Au
Minimum switching voltage	10 V AC/DC
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A (N/O contact)
Limiting continuous current	max. 100 mA (Alarm output (24 V DC))
Inrush current, minimum	10 mA
Maximum inrush current	6 A
Sq. Total current	$72 \text{ A}^2 (I_{TH}^2 = I_1^2 + I_2^2 + I_3^2 + I_4^2)$
Interrupting rating (ohmic load) max.	1500 VA (250 V AC, τ = 0 ms)
Interrupting rating (ohmic load) max.	66 W (220 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	66 W (110 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	100 W (48 V DC, τ = 0 ms)
Interrupting rating (ohmic load) max.	144 W (24 V DC, τ = 0 ms)
Maximum interrupting rating (inductive load)	48 W (24 V DC, τ = 40 ms)
Maximum interrupting rating (inductive load)	43 W (48 V DC, τ = 40 ms)
Switching capacity min.	0.1 W
Output fuse	6 A gL/gG NEOZED (N/O contact)
Output fuse	4 A gL/gG NEOZED (for low-demand applications)

Safety relays - PSR-SCP- 24DC/MXF1/4X1/2X2/B - 2902725

Technical data

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Mechanical service life	10 x 10 ⁶ cycles
Nominal operating mode	100% operating factor
Net weight	221 g
Mounting type	DIN rail mounting
Assembly instructions	See derating curve
Mounting position	vertical or horizontal
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Control	one and two channel
Housing color	yellow

Connection data

Connection method	Screw connection
pluggable	Yes
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.	24
Conductor cross section AWG max.	12
Stripping length	7 mm
Screw thread	M3

Safety-related characteristic data

Stop category	0
Safety Integrity Level (SIL)	3
Safety Integrity Level (SIL)	3
Designation	EN ISO 13849
Performance level (PL)	e (5 A DC13; 3 A AC15; 8760 cycles/year)
Category	4
Safety Integrity Level Claim Limit (SIL CL)	3
Designation	EN 50156
Safety Integrity Level (SIL)	3

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
Rated insulation voltage	250 V AC
Rated surge voltage/insulation	4 kV/basic isolation (safe isolation, reinforced insulation and 6 kV between input circuit, enabling current paths and safety circuit 1 (13/14, 23/24) and safety circuit 2 (43/44, 53/54).)
Degree of pollution	2

Safety relays - PSR-SCP- 24DC/MXF1/4X1/2X2/B - 2902725

Technical data

Standards and Regulations

Overvoltage category	III
-----------------------------	-----

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371901
eCl@ss 5.1	27371901
eCl@ss 6.0	27371819
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449
ETIM 6.0	EC001449



UNSPSC


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


Approvals

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

Approval details

Functional Safety  
--

UL Listed 
--

cUL Listed 

Safety relays - PSR-SCP- 24DC/MXF1/4X1/2X2/B - 2902725

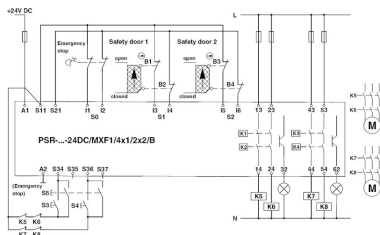
Approvals

EAC ENEC

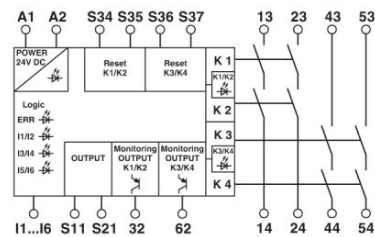
cULus Listed

Drawings

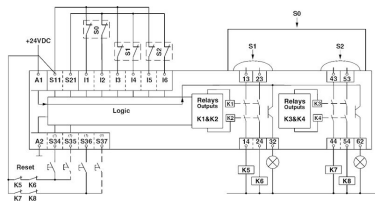
Application drawing



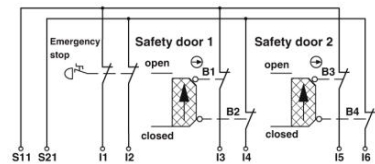
Circuit diagram



Circuit diagram



Circuit diagram



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