

Coupling relay - PSR-SCP- 24DC/ETP/1X1 - 2986711

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Coupling relay for SIL 3 low demand applications, couples digital output signals to the periphery, 1 enabling current path, module for F&G applications, test pulse filter, plug-in screw connection, 17.5 mm width

Your advantages

- Narrow 17.5 mm housing
- Up to SIL 3 according to IEC 61508
- Long service life thanks to filtering of controller test pulses
- One enabling current path
- Couples digital output signals from failsafe controllers to I/O devices (valves, etc.) for electrical isolation and power adaptation



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 540797
GTIN	4046356540797
Weight per Piece (excluding packing)	187.000 g
Custom tariff number	85364900
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Note

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

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

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Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 65 °C
Max. permissible humidity (storage/transport)	≤ 85 % (Condensation and icing are not permitted based on the average annual temperature)
	≤ 85 % (On an individual basis, condensation and icing are not permitted)
Maximum altitude	≤ 2000 m (Above sea level)

Input data

Nominal input voltage U_N	24 V DC
Input voltage range	20.4 V DC ... 26.4 V DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	75 mA
Inrush current	200 mA
Typical response time	30 ms
Recovery time	1 s
Operating voltage display	Green LED (POWER)

Output data

Contact type	1 enabling current path
Contact material	AgNi, gold-flashed
Maximum switching voltage	250 V AC (125 V DC)
Minimum switching voltage	15 V AC/DC
Limiting continuous current	5 A (N/O contact, pay attention to the derating)
Maximum inrush current	5 A
Inrush current, minimum	100 mA
Sq. Total current	$25 A^2 (I_{TH2} = I_{I2} + \dots + I_{N2})$
Switching capacity min.	1.5 W
Mechanical service life	approx. 10^7 cycles

General

Relay type	Electromechanical relay with forcibly guided contacts in accordance with EN 50205
Nominal operating mode	100% operating factor
Net weight	187 g
Mounting position	optional (Observe derating)
Mounting type	DIN rail mounting
Assembly instructions	In rows with zero spacing
Degree of protection	IP20
	IP54
Min. degree of protection of inst. location	IP54
Housing color	yellow

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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

Designation	IEC 61508 - Low demand
Safety Integrity Level (SIL)	3

Standards and Regulations

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	6 kV/safe isolation (through protective impedance)
Degree of pollution	2
Overvoltage category	III
Shock	15g
Vibration (operation)	10 Hz ... 150 Hz, 2g
UL, USA/Canada	UL applied for

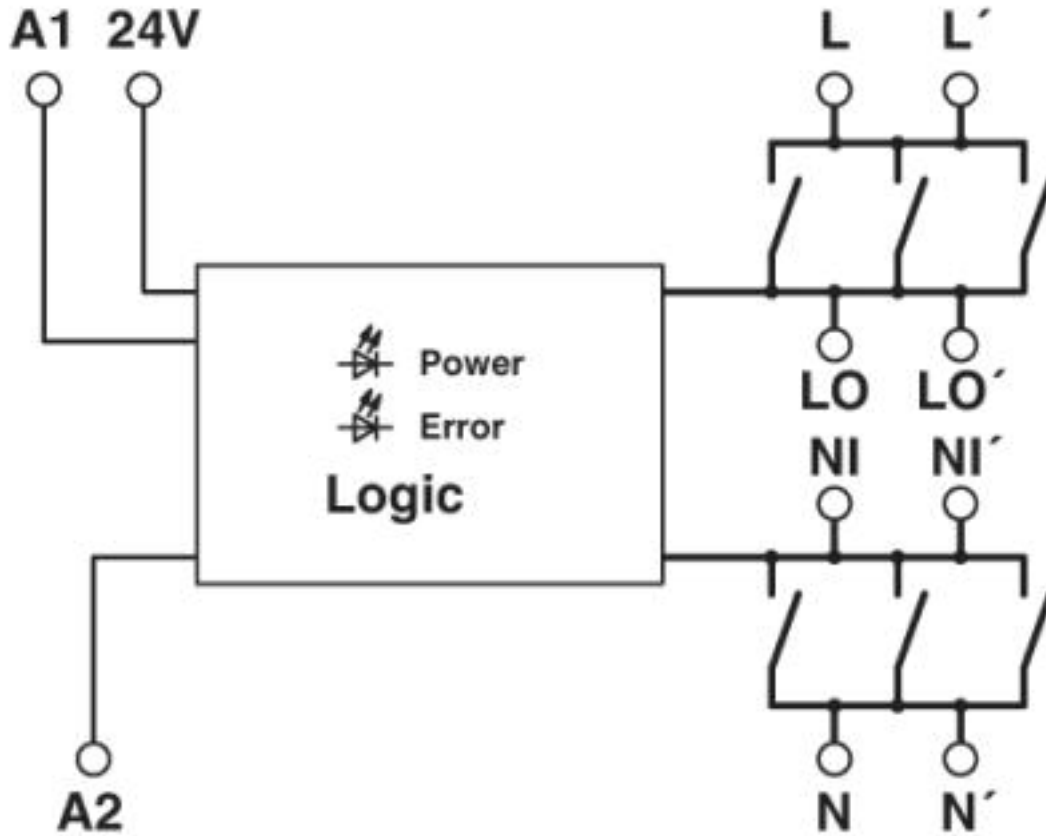
Environmental Product Compliance

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

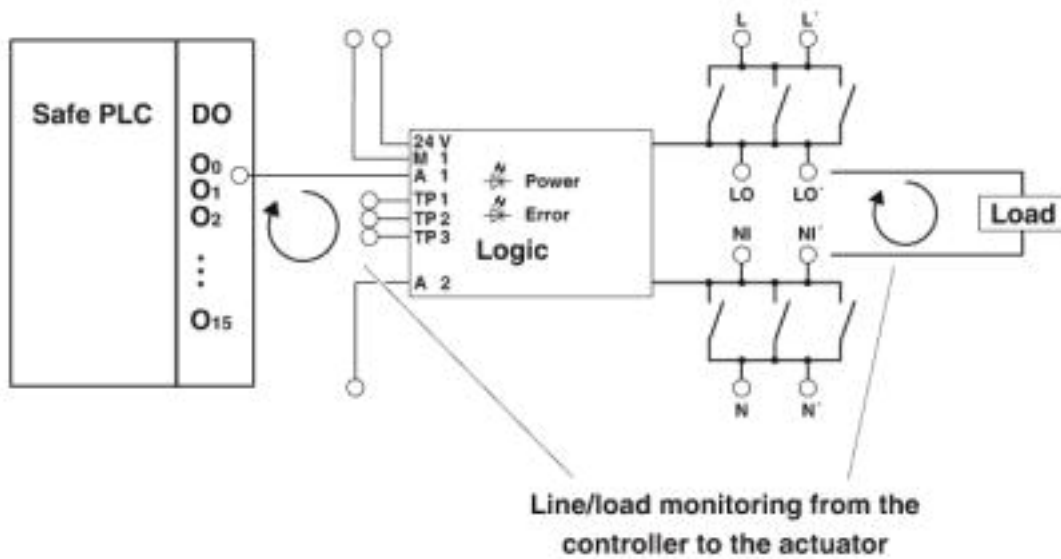
Drawings

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Circuit diagram



Circuit diagram



Line/load monitoring from the controller to the actuator

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Classifications

eCl@ss

eCl@ss 4.0	40020600
eCl@ss 4.1	40020600
eCl@ss 5.0	27371900
eCl@ss 5.1	27371900
eCl@ss 6.0	27371800
eCl@ss 7.0	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

ETIM 2.0	EC001449
ETIM 3.0	EC001449
ETIM 4.0	EC001449
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449

UNSPSC

UNSPSC 6.01	30211901
UNSPSC 7.0901	39121501
UNSPSC 11	39121501
UNSPSC 12.01	39121501
UNSPSC 13.2	39121501
UNSPSC 18.0	39122205
UNSPSC 19.0	39122205
UNSPSC 20.0	39122205
UNSPSC 21.0	39122205

Approvals

Approvals

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Functional Safety / Functional Safety / EAC

Ex Approvals

Approval details

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Approvals

Functional Safety		968/EZ 556.02/18
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EAC		RU C- DE.A*30.B.01082