Coupling relay - PSR-PS22-1NO-1NC-24VDC-SC - 2702524

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Coupling relay for SIL 3 high and low-demand applications, couples digital output signals to the I/O, 1 enabling current path, 1 confirmation current path, safe state off applications, test pulse filter, fixed screw terminal block

Your advantages

- Up to SIL 3 according to IEC 61508
- Forcibly guided contacts according to EN 50205
- Easy proof test according to IEC 61508
- Low housing width of just 6.8 mm
- Long service life thanks to filtering of controller test pulses
- 1 enabling current path, 1 diagnostic 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 055626 280240
GTIN	4055626280240
Weight per Piece (excluding packing)	71.490 g
Custom tariff number	85364900
Country of origin	Germany

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

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Depth	102.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C (observe derating)
Ambient temperature (storage/transport)	-40 °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)

Power supply

Rated control circuit supply voltage U_S	24 V DC -15 % / +10 % (A1/A2)
	20.4 V DC ... 26.4 V DC
Rated control supply current I_S	typ. 45 mA
Power consumption at U_S	typ. 1.08 W
Inrush current	typ. 150 mA (Δt < 5 ms at U_s)
Filter time	max. 3 ms (at A1-A2 in the event of voltage dips at U_s)
	max. 3 ms (at A1-A2; low test pulse width)
	≥ 50 ms (at A1-A2; low test pulse rate)
	max. 17 ms (at A1-A2; high test pulse width)
	≥ 600 ms (at A1-A2; high test pulse rate)
Diagnostic supply voltage U_D	24 V DC -15 % / +10 % (21/0V)
Input current at U_D	6 mA (at the contacts 21/0V for U_D; + 100 mA depending on load at contact 22)
Inrush current at U_D	typ. 200 mA (Δt < 1 ms; for contacts 21 - 0 V at U_D)
Protective circuit	Serial protection against polarity reversal 33 V suppressor diode (A1-A2)33 V suppressor diode (21/0V)

Relay outputs: enabling current path

Output name	Enabling current path
Output description	2 N/O contacts in series, without delay, floating
Number of outputs	1 (safety-related N/O contacts: 13/14)
Contact type	1 enabling current path
Contact material	$AgSnO_2$
Switching voltage	min. 12 V AC/DC
	max. 250 V AC/DC (Observe the load curve)
Limiting continuous current	6 A (High demand)
	4 A (Low demand)
Inrush current	min. 3 mA
	max. 6 A
Sq. Total current	36 A^2 (observe derating)
Switching capacity	min. 60 mW
Switching frequency	max. 1 Hz