

Coupling relay - PSR-PC51-1NO-1NC-24DC-SC - 2702522

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Coupling relay for electrical isolation and power adaptation for SIL 3 F&G applications, low demand, load diagnostics in the Off and On state for open circuit and short circuit, 1 enabling current path, test pulse filter, plug-in screw terminal block, width: 17.5 mm

Your advantages

- Suitable for low-demand applications up to SIL 3 according to IEC 61508, IEC 61511, and EN 50156
- Earth leakage monitoring
- Configurable Off and On state diagnostics
- Active error acknowledgment via A1 at DO
- Integrated DCS test pulse filter
- 1 enabling current path, 1 signaling current path



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 283388
GTIN	4055626283388
Weight per Piece (excluding packing)	147.480 g
Custom tariff number	85364190
Country of origin	Germany

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	112.2 mm
Depth	114.5 mm

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 65 °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)
Air pressure (operation)	79 kPa ... 106 kPa
Air pressure (storage/transport)	79 kPa ... 106 kPa
Maximum altitude	≤ 2000 m (Above sea level)

Power supply

Rated control circuit supply voltage U_S	24 V DC -15 % / +10 %
	20.4 V DC ... 26.4 V DC
Rated control supply current I_S	typ. 75 mA
Power consumption at U_S	typ. 2 W (at U_S/U_D ; On state)
Inrush current	max. 100 mA
Filter time	2 ms (at A1-A2 in the event of voltage dips at U_S)
	max. 2 ms (at A1-A2; low test pulse width)
	≥ 100 ms (at A1-A2; low test pulse rate)
	max. 17 ms (at A1-A2; high test pulse width)
	≥ 800 ms (at A1-A2; high test pulse rate)
Diagnostic supply voltage U_D	24 V DC -20 % / +25 %
Input current at U_D	35 mA (at $U_D = 24$ V)
	45 mA (at $U_D = 19$ V)
	25 mA (at $U_D = 30$ V)
Inrush current at U_D	1.5 A ($\Delta t < 10$ μs)
Power consumption at U_D	typ. 0.9 W (at U_D ; Off state)
Protective circuit	Surge protection 36 V suppressor diode (A1-A2)33 V suppressor diode (24V-GND)
	Polarity reversal protection for rated control circuit supply voltage and diagnostic supply voltage

Digital inputs

Description of the input	Test point for proof test
Number of inputs	3
Inrush current	typ. 200 mA
Current consumption	typ. 20 mA (Input TP1)
	typ. 20 mA (Input TP2)
	typ. 30 mA (Input TP3)
Type of protection	Surge protection
Protective circuit/component	36 V suppressor diode

Relay outputs: enabling current path

Output name	Enabling current path
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