

Safety relays - PSR-MC42-2NO-1DO-24DC-SP - 2702902

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Safety relay with IO-Link for emergency stop, safety doors, and light grids, up to SILCL 3, Cat. 4, PL e, 2 sensor circuits, automatic or manual, monitored start, 2 enabling current paths, 1 signal output, $U_s = 24\text{ V DC}$, plug-in spring-cage terminal block

Your advantages

- ✓ Up to Cat. 4/PL e according to ISO 13849-1, SILCL 3 according to IEC 62061, SIL 3 according to IEC 61508
- ✓ Single and two-channel control
- ✓ 2 sensor circuits
- ✓ 2 enabling current paths, 1 digital signal output
- ✓ Diagnostic data via IO-Link in combination with PSR-CT safety switches
- ✓ For emergency stop and safety door monitoring, plus evaluation of light grids
- ✓ Manually monitored and automatic activation



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 458564
GTIN	4055626458564
Weight per Piece (excluding packing)	181.800 g
Sales Key	DNA181

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	116.6 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 ... 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

Designation	A1/A2
Rated control circuit supply voltage U_S	24 V DC -20 % / +25 % (provide external protection)
Rated control supply current I_S	typ. 60 mA
Power consumption at U_S	typ. 1.44 W
Inrush current	typ. 2.5 A ($\Delta t = 500 \mu s$ at U_S)
Filter time	1 ms (at A1 in the event of voltage dips at U_S)
Protective circuit	Serial protection against polarity reversal Suppressor diode

Supply of the IO-Link ports

Designation	L+/L-
Nominal voltage for I/O supply	24 V DC -20 % / +25 % (is provided via the IO-Link interface of the IO-Link master.)
Current consumption	typ. 16 mA
Type of protection	Serial protection against polarity reversal
Protective circuit/component	Suppressor diode

Digital inputs

Input name	Sensor circuit S0
	S12, S22
Description of the input	safety-related sensor inputs
	NPN (S12), NPN/PNP (S22)
Number of inputs	2
Input voltage range "0" signal	0 V DC ... 5 V DC (S12)
	For S22, see note in "Signal generator connection versions" section.
Input voltage range "1" signal	11 V DC ... 30 V DC
Input current range "0" signal	0 mA ... 2 mA (S12, S22)
Inrush current	< 5 mA (typ. with U_S at S12, $\Delta t = 150 ms$)
	< 5 mA (typically with U_S at S22/24 V, $\Delta t = 500 \mu s$)
	> -5 mA (typically with U_S at S22/0 V, $\Delta t = 500 \mu s$)
Current consumption	< 5 mA (Typically with U_S at S12)
	< 5 mA (typically with U_S at S22/24 V)
	> -5 mA (typically with U_S at S22/0 V)
Filter time	1.5 ms (Test pulse width of low test pulses)
	Test pulse rate = 5 x Test pulse width
	Deactivate switch-on pulses/light tests for safety applications.