

1086946

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Coupling relay for SIL 3 high and low-demand applications, coupled digital output signals to the I/O, 2 independently controllable enabling current paths, 2 confirmation current paths, safe state off applications, test pulse filter, pluggable Push-in terminal block

Product description

The safe coupling relay couples digital output signals from failsafe controllers to I/O devices and is used for power adaptation and electrical isolation. The safe coupling relay can be used in high- and low-demand applications. The safe coupling relay safely interrupts circuits.

Your advantages

- Up to SIL 3 in accordance with IEC 61508, IEC 61511, and IEC 50156
- · Approved for Class I, Zone 2 applications
- Force-guided contacts in accordance with EN 50205
- Easy proof test according to IEC 61508 thanks to integrated signal contact
- · Low housing width of just 12.5 mm
- · Long service life thanks to filtering of controller test pulses
- · 2 enabling current paths, 2 confirmation current paths
- · Independent control of the relay channels possible

Commercial data

Item number	1086946
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DNA182
Product key	DNA182
GTIN	4055626881669
Weight per piece (including packing)	203.05 g
Weight per piece (excluding packing)	114.755 g
Customs tariff number	85364190
Country of origin	DE



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Technical data

Notes

Note on application CCCex note Use in potentially explosive areas is not permitted in China.	Note on application	
CCCex note Use in potentially explosive areas is not permitted in China. Product properties Product type Product family Application	Note on application	Only for industrial use
Product type Coupling relay Product family PSRmini Application Safe switch off High demand Low demand Ex Control 1 and 2 channel Mechanical service life 10x 10 ⁶ cycles Relay type Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 Insulation characteristics Overvoltage category III Degree of pollution 2 Times Typ. starting time with U _a < 70 ms (when controlled via A1 or A3 at U _a) Recovery time 500 ms Electrical properties Secure of pollution Maximum power dissipation for nominal condition 7.05 W (S1, S2, S3, S4 = ON, 2-channel load, U _a = 30 V, U _a = 24 V, U _a = 2*4 mA, U _a = 36 A, R _{contact} = 0.05 Ω) Nominal operating mode 100% operating factor Rated insulation voltage 250 V AC Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (131/4, 33/34) and between (13/4) and (33/4), Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated contro	Utilization restriction	
Product type	CCCex note	Use in potentially explosive areas is not permitted in China.
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Application Safe switch off High demand Low demand EX Control 1 and 2 channel Mechanical service life Relay type Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 Insulation characteristics Overvoltage category Ill Degree of pollution 2 Times Typ. starting time with U _s Typical release time Secovery time So ms Electrical properties Maximum power dissipation for nominal condition Nominal operating mode Rated insulation voltage Rated surge voltage/insulation Rated surge voltage/insulation Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control icruit supply voltage U _S Rated control icruit supply voltage U _S Rated control icruit supply voltage U _S Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S Vp. 15 mA (per channel (configurable))	Product type	Coupling relay
High demand Low demand Ex 1 and 2 channel Mechanical service life 10x 10° cycles Relay type Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 Insulation characteristics Overvoltage category Ill Degree of pollution 2 Times Typ. starting time with U _s 7 ypical release time 8 < 70 ms (when controlled via A1 or A3 at U _S) 7 ypical release time 8 < 30 ms (when controlled via A1 or A3 at U _S) Recovery time Maximum power dissipation for nominal condition 7.05 W (S1, S2, S3, S4 = ON, 2-channel load, U _B = 30 V, U _S = 24 V, I _S = 2*46 mA, I _S * = 36 A, R _{contact} = 0.05 Ω) Nominal operating mode Rated insulation voltage Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.0 V DC 30 V DC Rated control circuit supply voltage U _S 19.0 V DC 30 V DC Rated control circuit supply voltage U _S 19.0 V DC 30 V DC	Product family	PSRmini
Low demand Ex	Application	Safe switch off
Ex Control 1 and 2 channel Mechanical service life 10x 10° cycles Relay type Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 Insulation characteristics Overvoltage category III Degree of pollution 2 Times Typ. starting time with U _s < 70 ms (when controlled via A1 or A3 at U _s) Typical release time < 30 ms (when controlled via A1 or A3 at U _s) Recovery time 500 ms Electrical properties Maximum power dissipation for nominal condition U _s = 24 V, I _s = 2*46 mA, I _s * = 36 A, R _{contact} = 0.05 Ω) Nominal operating mode 100% operating factor Rated insulation voltage 250 V AC Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control control supply current I _S 19.2 V DC 30 V DC		High demand
$ \begin{array}{c} \text{Control} & 1 \text{ and 2 channel} \\ \text{Mechanical service life} & 10x 10^6 \text{ cycles} \\ \text{Relay type} & \text{Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3} \\ \\ \text{Insulation characteristics} & \\ \text{Overvoltage category} & III \\ \text{Degree of pollution} & 2 \\ \\ \text{Times} & \\ \\ \text{Typ. starting time with U_s} & < 70 \text{ ms (when controlled via A1 or A3 at U_s)} \\ \text{Typical release time} & < 30 \text{ ms (when controlled via A1 or A3 at U_s)} \\ \text{Recovery time} & 500 \text{ ms} \\ \\ \text{Electrical properties} & \\ \\ \text{Maximum power dissipation for nominal condition} & 7.05 \text{ W (S1, S2, S3, S4 = ON, 2-channel load, $U_g = 30$ V, $U_s = 2^4 \text{ V, $I_s = 2^3 46$ mA, I_t^2 = 36 A, $R_{contact} = 0.05 \Omega$)} \\ \text{Nominal operating mode} & 100\% \text{ operating factor} \\ \text{Rated insulation voltage} & 250 \text{ V AC} \\ \text{Rated surge voltage/insulation} & \text{Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) } \\ \text{Basic insulation 4 kV between all current paths and housing} \\ \text{500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42)} \\ \text{Supply} & \\ \text{Designation} & \text{A1/A2, A3/A4} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 \text{ V DC} 30 \text{ V DC} \\ \text{Rated control circuit supply voltage U_s} & 19.2 $		Low demand
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Relay type Electromechanical relay with force-guided contacts in accordance with IEC/EN 61810-3 Insulation characteristics Overvoltage category III Degree of pollution 2 Times Typ. starting time with U ₈ 7ypical release time 500 ms Electrical properties Maximum power dissipation for nominal condition Nominal operating mode Rated insulation voltage Rated surge voltage/insulation Rated surge voltage/insulation Safe isolation, reinforced insulation 64 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U ₈ Rated control supply current I ₈ typ. 15 mA (per channel (configurable))	Control	1 and 2 channel
Insulation characteristics Overvoltage category Degree of pollution Image: Typ. starting time with U_s Typ. starting time with U_s Typ. starting time with U_s Typical release time Recovery time Soo ms Electrical properties Maximum power dissipation for nominal condition Tos W (S1, S2, S3, S4 = ON, 2-channel load, U_B = 30 V, U_S = 24 V, I_S = 2*46 mA, I_L *2 = 36 A, I_S = 30 V, I_S = 24 V, I_S = 10.05 I_S Accordance in sulation voltage Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U_S Rated control supply current I_S Typ. 15 mA (per channel (configurable))	Mechanical service life	10x 10 ⁶ cycles
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Relay type	
Times Typ. starting time with U_s Typical release time Recovery time Typ. Starting time with U_s Typical release time Soo ms Electrical properties Maximum power dissipation for nominal condition $V_s = 24 \text{ V}$, $V_s = 2*46 \text{ mA}$, $V_s = 2*46 \text$	Insulation characteristics	
Times Typ. starting time with U_s < 70 ms (when controlled via A1 or A3 at U_s) Typical release time	Overvoltage category	III
Typ. starting time with U_s < 70 ms (when controlled via A1 or A3 at U_s) Typical release time < 30 ms (when controlled via A1 or A3 at U_s) Recovery time 500 ms Electrical properties Maximum power dissipation for nominal condition 7.05 W (S1, S2, S3, S4 = ON, 2-channel load, $U_B = 30 \text{ V}$, $U_S = 24 \text{ V}$, $I_S = 2*46 \text{ mA}$, $I_L^2 = 36 \text{ A}$, $R_{contact} = 0.05 \Omega$) Nominal operating mode 100% operating factor Rated insulation voltage 250 V AC Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U_S 19.2 V DC 30 V DC Rated control circuit supply voltage U_S 24 V DC -20 % / +25 % Rated control supply current I_S typ. 15 mA (per channel (configurable))	Degree of pollution	2
Typical release time	Times	
Typical release time	Typ. starting time with U _s	< 70 ms (when controlled via A1 or A3 at U _S)
Electrical properties Maximum power dissipation for nominal condition		
Maximum power dissipation for nominal condition 7.05 W (S1, S2, S3, S4 = ON, 2-channel load, U _B = 30 V, U _S = 24 V, I _S = 2*46 mA, I _L ² = 36 A, R _{contact} = 0.05 Ω)Nominal operating mode 100% operating factorRated insulation voltage 250 V AC Rated surge voltage/insulationSafe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34)Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42)SupplyDesignationRated control circuit supply voltage U _S 19.2 V DC 30 V DCRated control circuit supply voltage U _S 24 V DC -20 % / +25 %Rated control supply current I _S typ. 15 mA (per channel (configurable))	Recovery time	500 ms
$U_{S} = 24 \text{ V}, I_{S} = 2*46 \text{ mA}, I_{L}^{2} = 36 \text{ A}, R_{\text{contact}} = 0.\overline{05} \ \Omega)$ Nominal operating mode $100\% \text{ operating factor}$ Rated insulation voltage 250 V AC Rated surge voltage/insulation} $\frac{250 \text{ V AC}}{21/22, 41/42) \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)}$ $\frac{21/22, 41/42) \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)}{21/22, 41/42) \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)}$ $\frac{21}{22} \text{ V IS} = 2*46 \text{ mA}, I_{L}^{2} = 36 \text{ A}, R_{\text{contact}} = 0.\overline{05} \ \Omega)$ $\frac{250 \text{ V AC}}{21/22, 41/42) \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)}$ $\frac{21}{22} \text{ V IS} = 2*46 \text{ mA}, I_{L}^{2} = 36 \text{ A}, R_{\text{contact}} = 0.\overline{05} \ \Omega)$ $\frac{250 \text{ V AC}}{21/22, 41/42) \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)$ $\frac{23/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (33/34)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (23/22, 41/42)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (21/22, 41/42)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (21/22, 41/42)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (21/22, 41/42)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (21/22, 41/42)$ $\frac{20/34}{21/22, 41/42} \text{ to } (13/14, 33/34) \text{ and between } (13/14) \text{ and } (21/22, 41/42)$	Electrical properties	
Rated insulation voltage Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S typ. 15 mA (per channel (configurable))	Maximum power dissipation for nominal condition	
Rated surge voltage/insulation Safe isolation, reinforced insulation 6.4 kV from (A1/A2, A3/A4, 21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S typ. 15 mA (per channel (configurable))	Nominal operating mode	100% operating factor
21/22, 41/42) to (13/14, 33/34) and between (13/14) and (33/34) Basic insulation 4 kV between all current paths and housing 500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42) Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S typ. 15 mA (per channel (configurable))	Rated insulation voltage	250 V AC
Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S Typ. 15 mA (per channel (configurable))	Rated surge voltage/insulation	
Supply Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S Typ. 15 mA (per channel (configurable))		Basic insulation 4 kV between all current paths and housing
Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S A1/A2, A3/A4 19.2 V DC 30 V DC 24 V DC -20 % / +25 % typ. 15 mA (per channel (configurable))		500 V isolation between (A1/A2, A3/A4) and (21/22, 41/42)
Designation A1/A2, A3/A4 Rated control circuit supply voltage U _S Rated control circuit supply voltage U _S Rated control supply current I _S A1/A2, A3/A4 19.2 V DC 30 V DC 24 V DC -20 % / +25 % typ. 15 mA (per channel (configurable))	Supply	
Rated control circuit supply voltage U _S 19.2 V DC 30 V DC Rated control circuit supply voltage U _S 24 V DC -20 % / +25 % Rated control supply current I _S typ. 15 mA (per channel (configurable))		A1/A2, A3/A4
Rated control circuit supply voltage U _S 24 V DC -20 % / +25 % Rated control supply current I _S typ. 15 mA (per channel (configurable))		19.2 V DC 30 V DC
Rated control supply current I _S typ. 15 mA (per channel (configurable))	-	24 V DC -20 % / +25 %
typ. 25 mA (per channel (configurable))	Rated control supply current I _S	typ. 15 mA (per channel (configurable))
		typ. 25 mA (per channel (configurable))



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	typ. 40 mA (per channel (configurable))
	typ. 46 mA (per channel (configurable))
Power consumption at U _S	typ. 360 mW (per channel (configurable))
	typ. 600 mW (per channel (configurable))
	typ. 960 mW (per channel (configurable))
	typ. 1.1 W (per channel (configurable))
Inrush current	typ. 200 mA (Δt = 10 μs at U _s , per channel (configurable))
	typ. 300 mA (Δt = 10 μs at U $_s$, per channel (configurable))
Filter time	2 ms (in the event of voltage dips at U _s)
Protective circuit	Serial protection against polarity reversal; 38.6 V suppressor diode

Output data

Relay: Enabling current paths (13/14, 33/34)

Output description	2 N/O contacts parallel, without delay, safety-related, floating
Number of outputs	2
Contact switching type	2 enabling current paths
Contact material	AgSnO ₂
Switching voltage	min. 12 V DC
	max. 250 V AC/DC
Switching capacity	min. 60 mW
Inrush current	min. 3 mA
	max. 6 A
Limiting continuous current	6 A (High demand)
	4 A (Low demand)
Sq. Total current	72 A ² (High-demand, observe derating)
	32 A ² (Low-demand, observe derating)
Switching frequency	max. 0.1 Hz
Mechanical service life	10x 10 ⁶ cycles
Output fuse	6 A gL/gG
	4 A gL/gG (for low-demand applications)

Relay: Confirmation current paths (21/22, 41/42)

. totay:	
Output description	2 N/C contacts parallel, without delay, safety-related, floating
Number of outputs	2
Contact switching type	2 confirmation current paths
Contact material	AgCuNi, + Au
Switching voltage	min. 5 V DC
	max. 30 V DC
Switching capacity	min. 20 mW
Inrush current	min. 1 mA
	max. 100 mA
Limiting continuous current	100 mA
Mechanical service life	10x 10 ⁶ cycles



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Output fuse	150 mA Fast-blow
nnection data	
Conductor connection	
Connection method	Push-in connection
Conductor cross section rigid	0.2 mm² 1.5 mm²
Conductor cross section flexible	0.2 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² 1.5 mm ² (only together with CRIMPFOX 6
Conductor cross-section AWG	24 16
Stripping length	8 mm
naling	
Status display	2 x LED (green)
nensions	
Width	12.5 mm
Height	116.6 mm
Depth	114.5 mm
terial specifications	
Color (Housing)	yellow (RAL 1018)
terial specifications Color (Housing) Housing material aracteristics	yellow (RAL 1018)
Color (Housing) Housing material aracteristics Safety data Stop category	
Color (Housing) Housing material aracteristics afety data Stop category afety data: EN ISO 13849	PA
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Color (Housing) Housing material aracteristics afety data Stop category afety data: EN ISO 13849 Category Performance level (PL) afety data: EN 50156-2 Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508)
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Color (Housing) Housing material aracteristics afety data Stop category afety data: EN ISO 13849 Category Performance level (PL) afety data: EN 50156-2 Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508)
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Color (Housing) Housing material aracteristics afety data Stop category afety data: EN ISO 13849 Category Performance level (PL) afety data: EN 50156-2 Safety Integrity Level (SIL) afety data: IEC 61508 – High-demand for 2-channel wiring (1002 str Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508) ructure) 3
Color (Housing) Housing material aracteristics afety data Stop category afety data: EN ISO 13849 Category Performance level (PL) afety data: EN 50156-2 Safety Integrity Level (SIL) afety data: IEC 61508 – High-demand for 2-channel wiring (1002 str Safety Integrity Level (SIL) afety data: IEC 61508 – High-demand for 1-channel wiring (1001 str Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508) ructure) 3
Color (Housing) Housing material aracteristics Safety data Stop category Safety data: EN ISO 13849 Category Performance level (PL) Safety data: EN 50156-2 Safety Integrity Level (SIL) Safety data: IEC 61508 – High-demand for 2-channel wiring (1002 str. Safety Integrity Level (SIL) Safety data: IEC 61508 – High-demand for 1-channel wiring (1001 str. Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508) ructure) 3
Color (Housing) Housing material aracteristics Safety data Stop category Safety data: EN ISO 13849 Category Performance level (PL) Safety data: EN 50156-2 Safety Integrity Level (SIL) Safety data: IEC 61508 – High-demand for 2-channel wiring (1002 str. Safety Integrity Level (SIL) Safety data: IEC 61508 – High-demand for 1-channel wiring (1001 str. Safety Integrity Level (SIL) Safety data: IEC 61508 – High-demand for 2-channel wiring (1001 str. Safety Integrity Level (SIL)	PA 0 4 e 3 (Reference IEC 61508) ructure) 2 ucture) 2



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Safety data: EN IEC 62061	
Safety Integrity Level (SIL)	3
Environmental and real-life conditions	
Ambient conditions	
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-40 °C 70 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C 85 °C
Maximum altitude	≤ 2000 m (Above sea level)
Max. permissible humidity (storage/transport)	75 % (on average, 85% infrequently, non-condensing)
Max. permissible relative humidity (operation)	75 % (on average, 85% infrequently, non-condensing)
Shock	15g
Vibration (operation)	10 Hz 150 Hz, 2g
Approvals	
Identification	
Certificate	DEMKO 19 ATEX 2240X
IECEx Identification	Ex ec nC IIC T4 Gc
Certificate	IECEX ULD 19.0023X
Certificate	ILCLX OLD 19.0023X
UL, USA/Canada	
Identification	cULus
Certificate	E140324
UL Ex, USA / Canada	
Identification	Class I, Zone 2, AEx ec nC IIC T4 / Ex ec nC IIC Gc T4 X
	Class I, Div. 2, Groups A, B, C, D, T4
Certificate	E360692
CF.	
CE Identification	CE-compliant
Identification	OL SOMPHUM.
Environmental simulation test	
Identification	G3
Certificate	ISA-S71.04
CCC / China-Ex	
Identification	Ex ec nC IIC T4 Gc
Certificate	2022122304115696
Mounting	
Mounting type	DIN rail mounting



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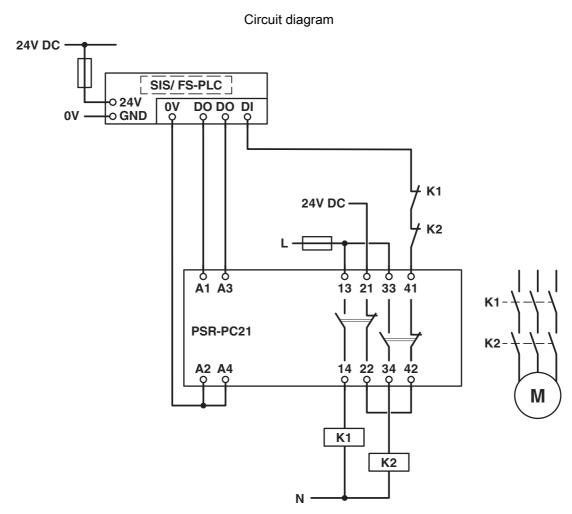
Assembly note	See derating curve
Mounting position	vertical or horizontal



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Drawings

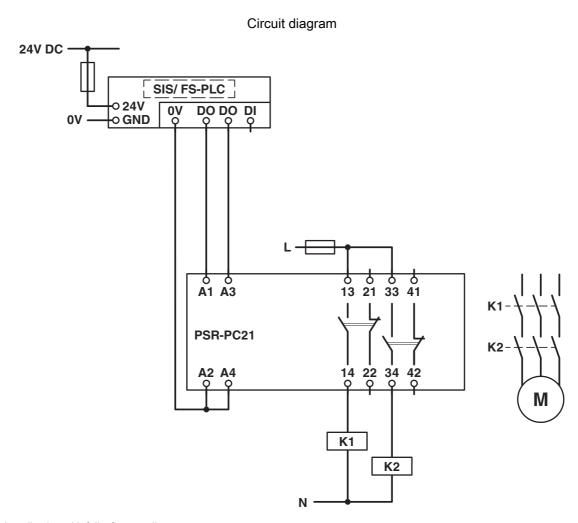


High-demand application with failsafe controller



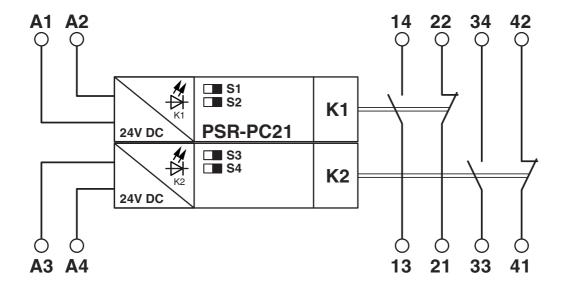
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High-demand application with failsafe controller

Block diagram



Block diagram



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https://www.phoenixcontact.com/au/products/1086946

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/au/products/1086946



Functional Safety

Approval ID: 968/FSP 1955.02/24



cULus Listed

Approval ID: E140324



IECEx

Approval ID: IECEx ULD 19.0023X



ATEX

Approval ID: DEMKO 19 ATEX 2240X



cULus Listed

Approval ID: E360692



CCC

Approval ID: 2022122304115696



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Classifications

UNSPSC 21.0

ECLASS		
ECLASS-13.0	27371819	
ETIM		
ETIM 9.0	EC001449	
UNSPSC		

39122200



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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-l
China RoHS	
Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.
EU REACH SVHC	
REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	60c80de9-918f-4455-8c74-685314cc2785

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