

PLC-SC-ELR W1/ 2-24DC - Reversing load relay



2980539

<https://www.phoenixcontact.com/us/products/2980539>

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PLC-INTERFACE as an electronic reversing load relay, consisting of PLC-BSC.../21 basic terminal block with screw connection and integrated circuit, for driving DC motors, with LED and protective circuit, output: 10 ... 30 V DC/2 A

Your advantages

- Wear-free reversing
- Short-circuit, surge, and overload-proof output
- Screw or spring-cage connection
- Braking by controlling both inputs
- Integrated locking circuit and load wiring

Commercial data

Item number	2980539
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C476
Product key	CK7621
Catalog page	Page 423 (C-5-2019)
GTIN	4046356051309
Weight per piece (including packing)	59.9 g
Weight per piece (excluding packing)	46.9 g
Customs tariff number	85364190
Country of origin	DE

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Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Product properties

Product type	Solid-state contactor
Product family	PLC-INTERFACE
Operating mode	100% operating factor

Insulation characteristics: Air clearances and creepage distances between the power circuits

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

Electrical properties

Number of phases	1
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Air clearances and creepage distances between the power circuits

Rated insulation voltage	50 V
Rated surge voltage	0.5 kV

Supply

Input name	Device supply
Rated control circuit supply voltage U_S	24 V DC
Control supply voltage range	19.2 V DC ... 28.8 V DC

Input data

Control

Input name	Control input right/left
Rated actuating voltage U_C	24 V DC
Triggering voltage range	19.2 V DC ... 28.8 V DC
Rated actuating current I_C	≈ 1 mA
Typical response time	200 μ s
Protective circuit	Reverse polarity protection Surge protection
Surge voltage protection	> 33 V DC
Transmission frequency	300 Hz
Switchover time R_L/L_L (turn-on time)	80 ms

Output data

DC output

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Note	Protect the supply voltage at the output using a suitable fuse.
Rated operating voltage U_e	24 V DC
Operating voltage range	10 V DC ... 30 V DC
Rated operating current (Load output)	2 A
Load current	2 A
Quiescent current	10 mA
Protective circuit	Reverse polarity protection; Polarity protection diode (No continuous protection against polarity reversal)
	Surge protection
Surge voltage protection	> 33 V DC

Motor switching output

Note	Short-circuit and overload protection
Continuous load current	2 A (see derating curve)
Short-circuit current	15 A (during braking)
Protective circuit	Surge protection
	RC element
Surge voltage protection	> 33 V DC

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1.5 mm ² (TWIN ferrule)
Conductor cross section AWG	26 ... 14
Tightening torque	0.45 Nm ... 0.55 Nm (Usually these terminal blocks must be supported during conductor connection (held by one hand, supported on the housing))

Signaling

Status display	LED (yellow)
Operating voltage display	Green LED

Dimensions

Width	6.5 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0

Environmental and real-life conditions

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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

UKCA

Certificate	UKCA-compliant
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CE

Certificate	CE-compliant
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Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Air clearances and creepage distances between the power circuits

Standards/regulations	IEC 60664
	EN 50178

Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	Vertical (horizontal DIN rail)

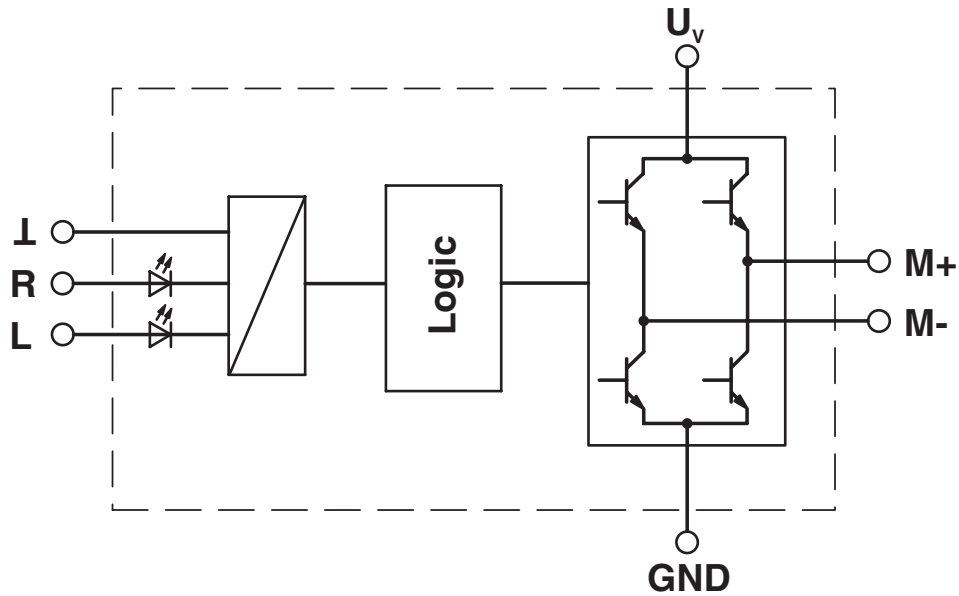
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Drawings

Circuit diagram



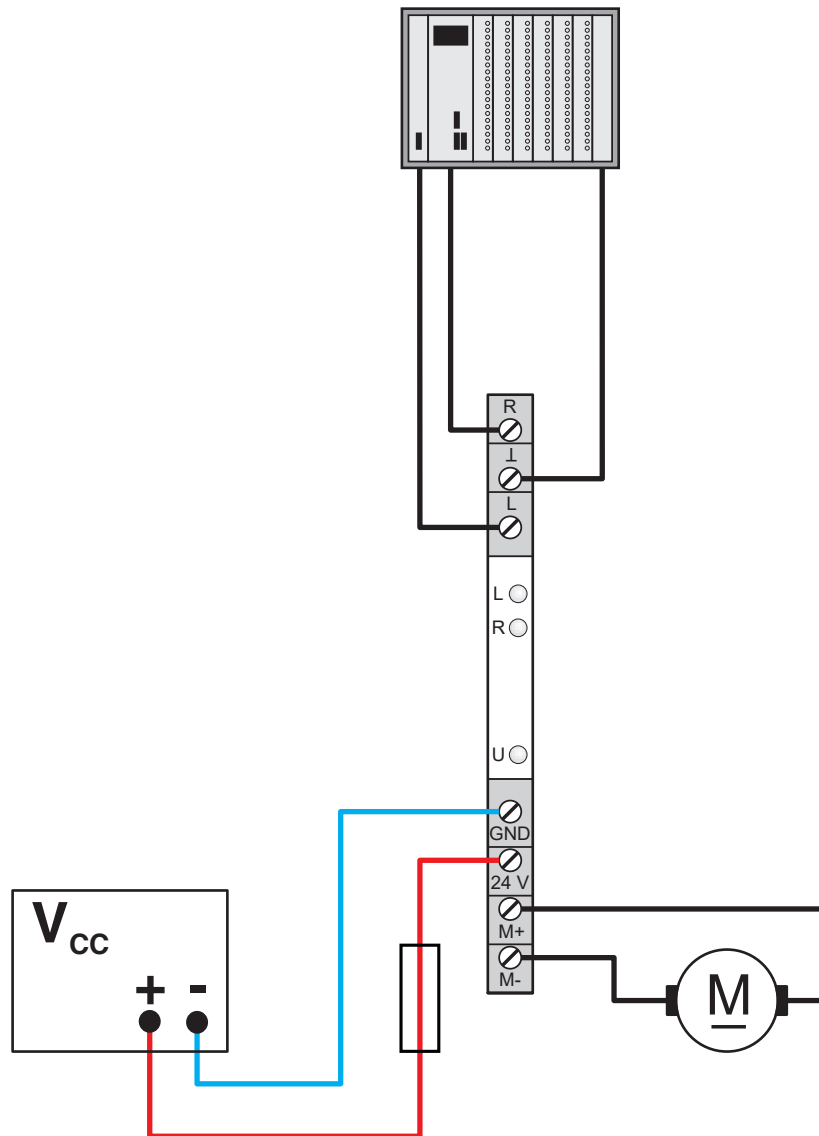
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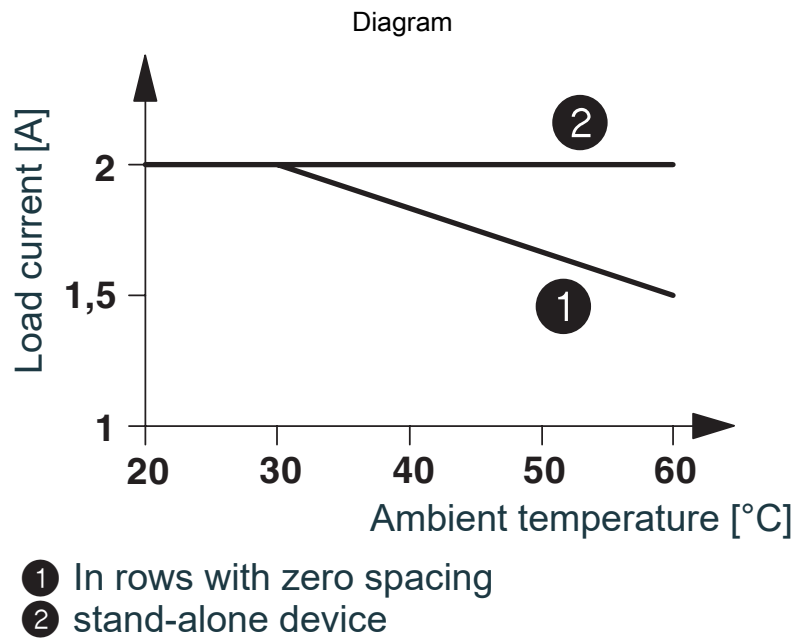
Application drawing



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Classifications

ECLASS

ECLASS-11.0	27371018
ECLASS-13.0	27371018
ECLASS-12.0	27371018

ETIM

ETIM 9.0	EC002552
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

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	9ce093dc-a901-4bb3-8fd1-48daf6429986

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com