

# 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	DK7621
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 $I_C$	$\approx$  mA
Typical response time	200 $\mu$ 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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (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)

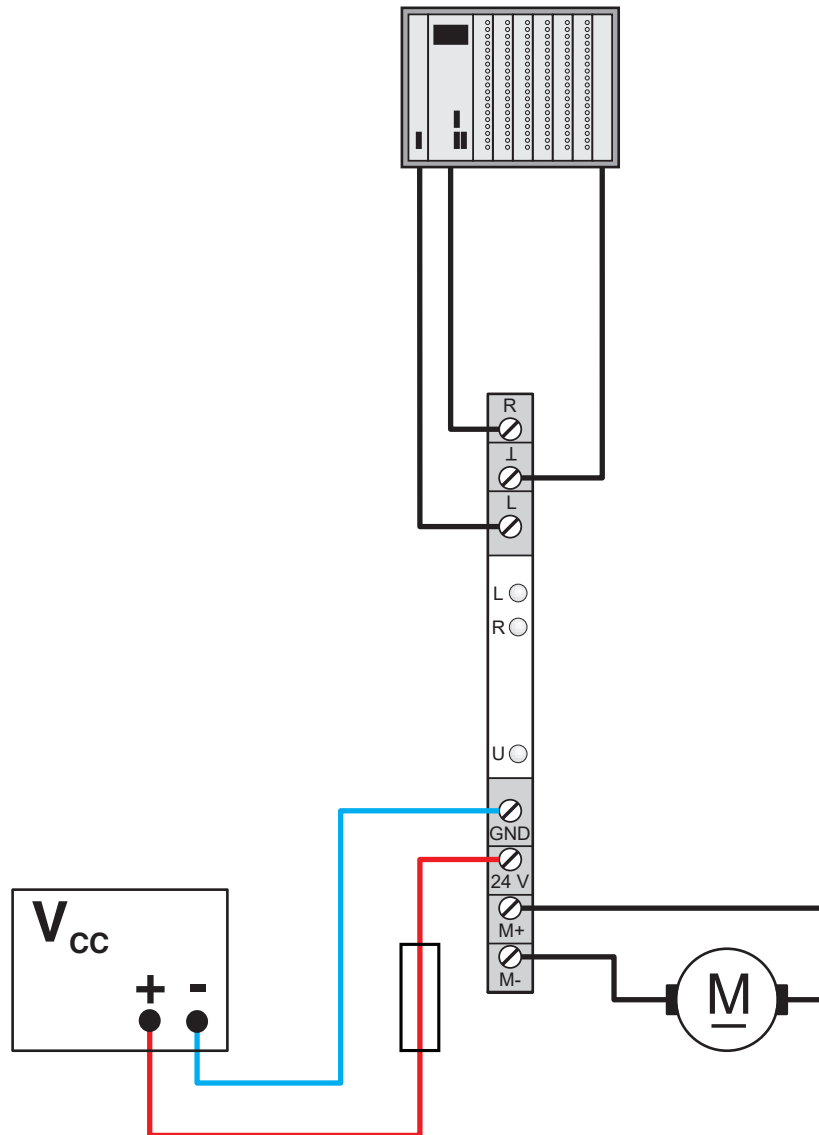
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## Drawings

Application drawing

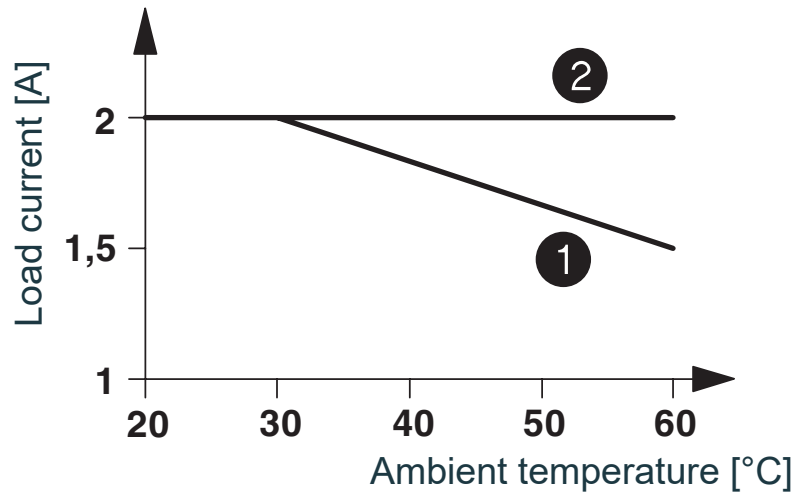


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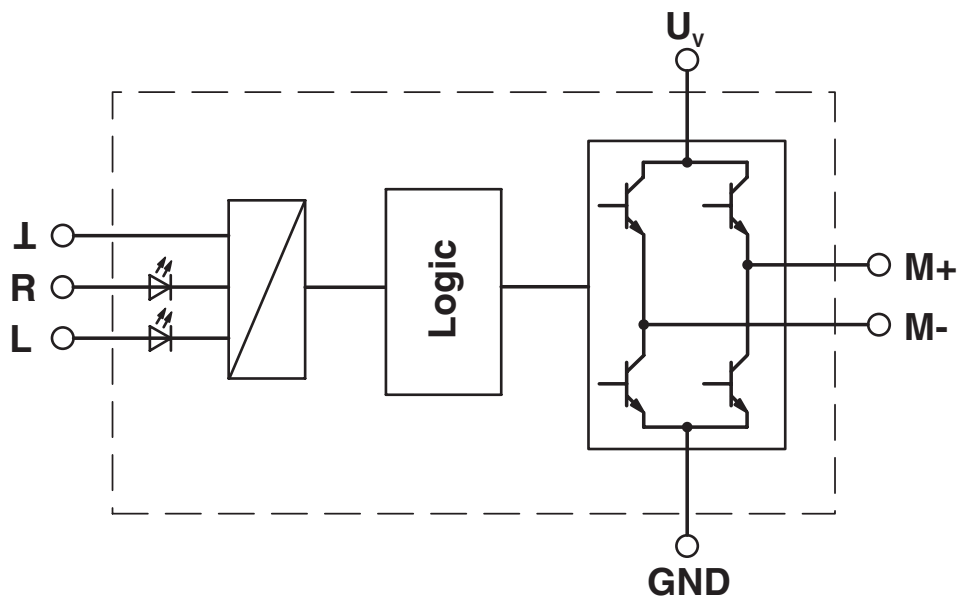
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Diagram



- ① In rows with zero spacing
- ② stand-alone device

Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0	27371018
ECLASS-15.0	27371018

### ETIM

ETIM 10.0	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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