

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



2980539

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

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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

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



2980539

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

## Technical data

### Notes

#### Utilization restriction

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

### Product properties

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

#### Insulation characteristics

Insulation	Basic insulation
------------	------------------

#### 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
------------------	---

#### 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 $I_C$	$\approx 1$ 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

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



2980539

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

## Output data

### DC output

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	Yellow LED
Operating voltage display	Green LED

## Dimensions

Width	6.5 mm
Height	80 mm
Depth	95 mm

## Material specifications

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



2980539

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

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

## Environmental and real-life conditions

### 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
-------------	----------------

### CE

Certificate	CE-compliant
-------------	--------------

### 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

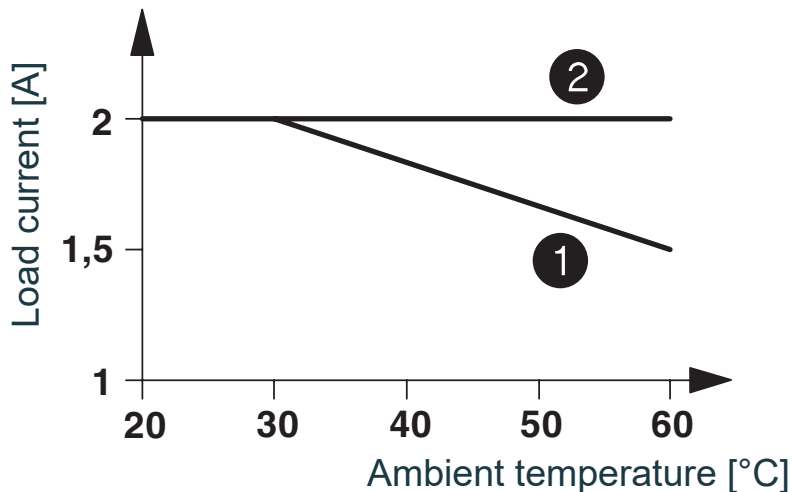
Standards/regulations	IEC 60664
	EN 50178

## Mounting

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

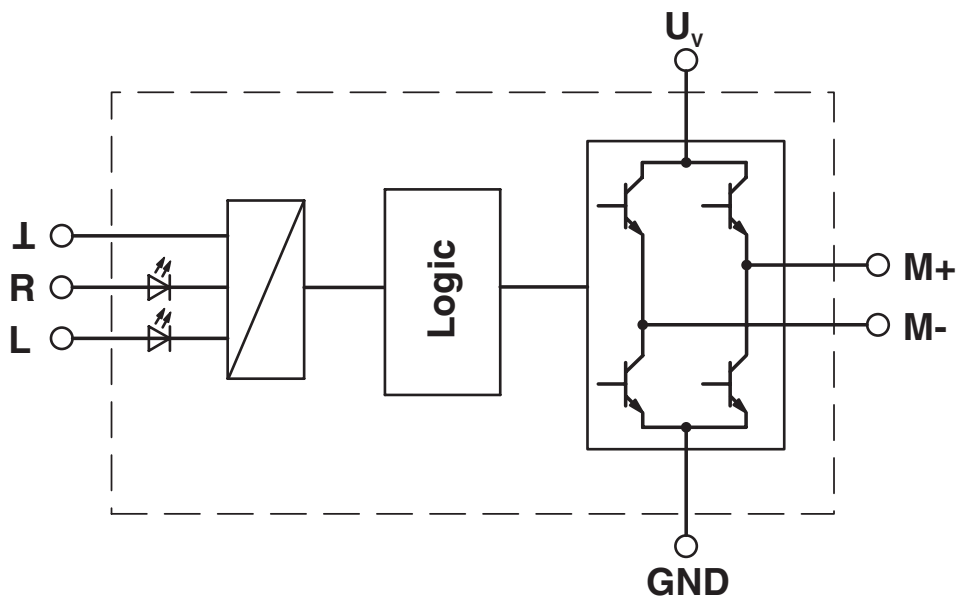
## Drawings

Diagram



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

Circuit diagram





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



2980539

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

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2980539>



**EAC**

Approval ID: TR\_TS\_D\_00573\_c

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



2980539

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

## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC002552
----------	----------

### UNSPSC

UNSPSC 21.0	39122300
-------------	----------



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



2980539

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

## 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

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



2980539

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

## Accessories

**i** Note: Applying some accessories below might limit this product.

### FBST 500-PLC RD - Continuous plug-in bridge

2966786

<https://www.phoenixcontact.com/us/products/2966786>



Continuous plug-in bridge, length: 500 mm, color: red

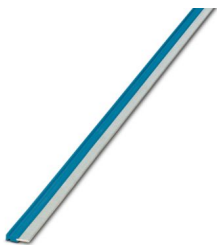
**i** Max. current carrying capacity: 32 A

---

### FBST 500-PLC BU - Continuous plug-in bridge

2966692

<https://www.phoenixcontact.com/us/products/2966692>



Continuous plug-in bridge, length: 500 mm, color: blue

**i** Max. current carrying capacity: 32 A

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

2980539

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

## FBST 500-PLC GY - Continuous plug-in bridge

2966838

<https://www.phoenixcontact.com/us/products/2966838>



Continuous plug-in bridge, length: 500 mm, color: gray

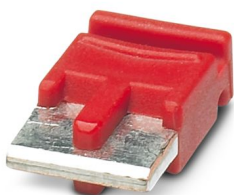
 Max. current carrying capacity: 32 A

---

## FBST 6-PLC RD - Single plug-in bridge

2966236

<https://www.phoenixcontact.com/us/products/2966236>



Single plug-in bridge, number of positions: 2, length: 6 mm, color: red

 Max. current carrying capacity: 6 A

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

2980539

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

## FBST 6-PLC BU - Single plug-in bridge

2966812

<https://www.phoenixcontact.com/us/products/2966812>

Single plug-in bridge, number of positions: 2, length: 6 mm, color: blue



 Max. current carrying capacity: 6 A

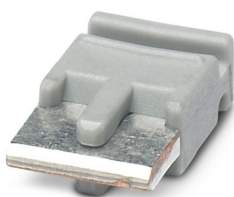
---

## FBST 6-PLC GY - Single plug-in bridge

2966825

<https://www.phoenixcontact.com/us/products/2966825>

Single plug-in bridge, number of positions: 2, length: 6 mm, color: gray



 Max. current carrying capacity: 6 A

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

2980539

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




## FBST 8-PLC GY - Single plug-in bridge

2967688

<https://www.phoenixcontact.com/us/products/2967688>

Single plug-in bridge, number of positions: 2, length: 8 mm, color: gray



 Max. current carrying capacity: 6 A

---

## PLC-ESK GY - Power terminal block

2966508

<https://www.phoenixcontact.com/us/products/2966508>

Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5



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

2980539

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



## PLC-ATP BK - Separating plate

2966841

<https://www.phoenixcontact.com/us/products/2966841>



Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation

---

## NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

<https://www.phoenixcontact.com/us/products/0801733>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



2980539

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

## NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

<https://www.phoenixcontact.com/us/products/0801681>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

---

## NS 35/ 7,5 WH PERF 2000MM - DIN rail perforated

1204119

<https://www.phoenixcontact.com/us/products/1204119>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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

2980539

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



## NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/us/products/1204122>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

---

## NS 35/ 7,5 AL UNPERF 2000MM - DIN rail, unperforated

0801704

<https://www.phoenixcontact.com/us/products/0801704>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver



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



2980539

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

## NS 35/ 7,5 ZN PERF 2000MM - DIN rail perforated

1206421

<https://www.phoenixcontact.com/us/products/1206421>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

---

## NS 35/ 7,5 ZN UNPERF 2000MM - DIN rail, unperforated

1206434

<https://www.phoenixcontact.com/us/products/1206434>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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



2980539

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

## NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/us/products/0801762>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

---

## NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/us/products/1206560>

DIN rail end piece, for DIN rail NS 35/7.5



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



2980539

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

## NS 35/15 PERF 2000MM - DIN rail perforated

1201730

<https://www.phoenixcontact.com/us/products/1201730>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

---

## NS 35/15 UNPERF 2000MM - DIN rail, unperforated

1201714

<https://www.phoenixcontact.com/us/products/1201714>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



2980539

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

## NS 35/15 WH PERF 2000MM - DIN rail perforated

0806602

<https://www.phoenixcontact.com/us/products/0806602>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white

---

## NS 35/15 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204135

<https://www.phoenixcontact.com/us/products/1204135>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



2980539

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

## NS 35/15 AL UNPERF 2000MM - DIN rail, unperforated

1201756

<https://www.phoenixcontact.com/us/products/1201756>



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

---

## NS 35/15 ZN PERF 2000MM - DIN rail perforated

1206599

<https://www.phoenixcontact.com/us/products/1206599>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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



2980539

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

## NS 35/15 ZN UNPERF 2000MM - DIN rail, unperforated

1206586

<https://www.phoenixcontact.com/us/products/1206586>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

---

## NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

<https://www.phoenixcontact.com/us/products/1201895>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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



2980539

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

## NS 35/15 CAP - End cap

1206573

<https://www.phoenixcontact.com/us/products/1206573>

DIN rail end piece, for DIN rail NS 35/15



---

## NS 35/15-2,3 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201798

<https://www.phoenixcontact.com/us/products/1201798>

DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver



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



2980539

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

## SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/products/1204517>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

---

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

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