

# ELR W1/ 6-24DC - Reversing load relay



2982090

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Electronic reversing load relay, for controlling DC motors, with LED display and protective circuit, output: 10 ... 30 V DC/6 A with a switch-over time of 80 ms

## Commercial data

Item number	2982090
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C476
Product key	DK7622
GTIN	4017918943936
Weight per piece (including packing)	118.9 g
Weight per piece (excluding packing)	112.3 g
Customs tariff number	85371098
Country of origin	DE

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## Technical data

### Product properties

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

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

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

### Electrical properties

Number of phases	1
Test voltage (Input/output)	2.5 kV <sub>rms</sub> (50 Hz, 60 s)

### Supply

Input name	Device supply
Rated control circuit supply voltage $U_S$	24 V DC
Control supply voltage range	10 V DC ... 30 V DC
Rated control supply current $I_S$	7 mA
Protective circuit	Surge protection

### Input data

#### Control

Input name	Control input right/left
Current consumption	3 mA
Rated actuating voltage $U_C$	24 V DC
Triggering voltage range	19.2 V DC ... 28.8 V DC
Rated actuating current $I_C$	3 mA
Typical response time	200 $\mu$ s
Protective circuit	Reverse polarity protection Surge protection
Surge voltage protection	> 33 V DC
Switchover time $R_L/L_L$ (turn-on time)	80 ms

### Output data

#### DC output

Rated operating voltage $U_e$	24 V DC
Operating voltage range	10 V DC ... 30 V DC
Rated operating current (Load output)	6 A
Load current	6 A (see to derating)
Quiescent current	approx. 7 mA (When switched off)

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Protective circuit	Reverse polarity protection
	Surge protection
Surge voltage protection	> 33 V DC
Current limitation at short-circuits	20 A

## Connection data

### Control circuits

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>
Conductor cross-section AWG	26 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb <sub>F</sub> -in. ... 7 lb <sub>F</sub> -in.

### Load circuit

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>
Conductor cross-section AWG	26 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb <sub>F</sub> -in. ... 7 lb <sub>F</sub> -in.

## Signaling

Status display	LED (yellow)
Operating voltage display	Green LED

## Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

Color	gray (RAL 7042)
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 80 °C

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## Approvals

### UKCA

Certificate	UKCA-compliant
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### UL approval

Certificate	NLDX.E228652
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## Standards and regulations

### Air clearances and creepage distances between the power circuits

Standards/regulations	EN 50178
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## Mounting

Mounting type	DIN rail mounting
Assembly note	alignable, for spacing see derating
Mounting position	vertical (horizontal DIN rail, motor output below)

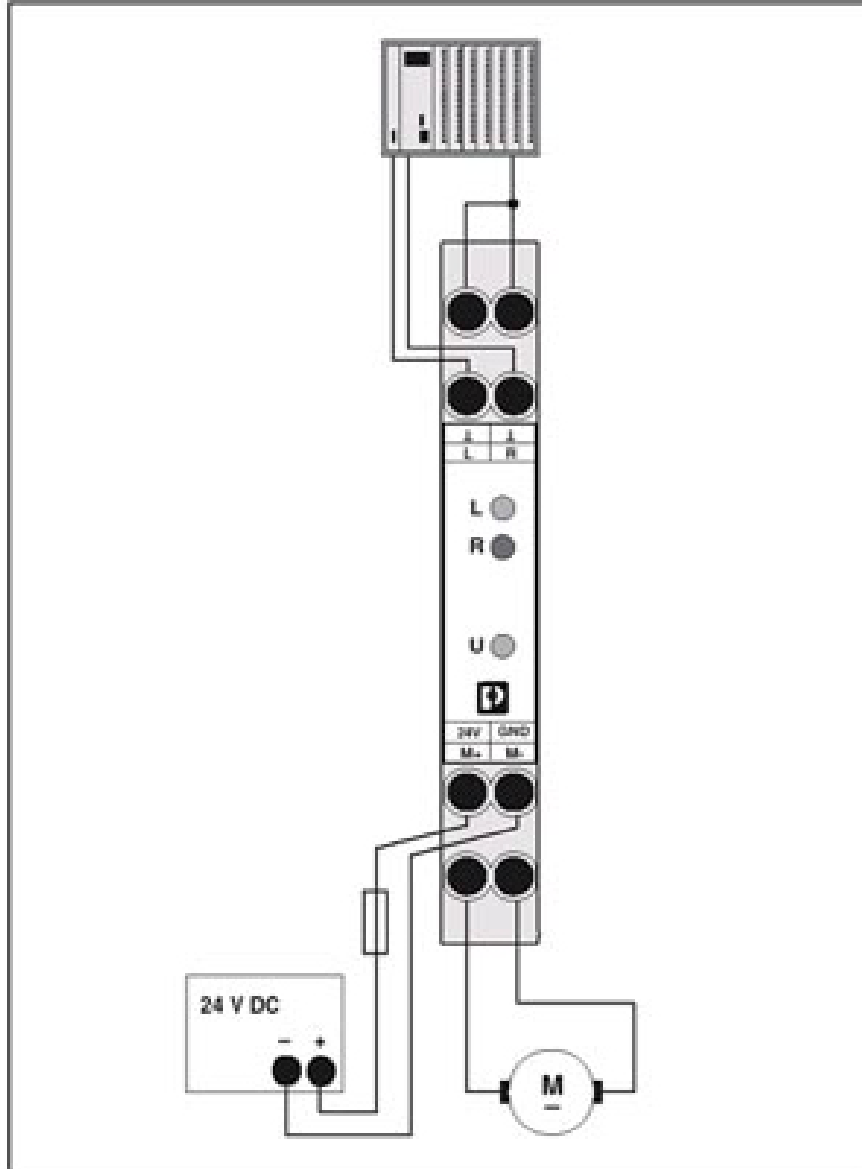
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## Drawings

Application drawing



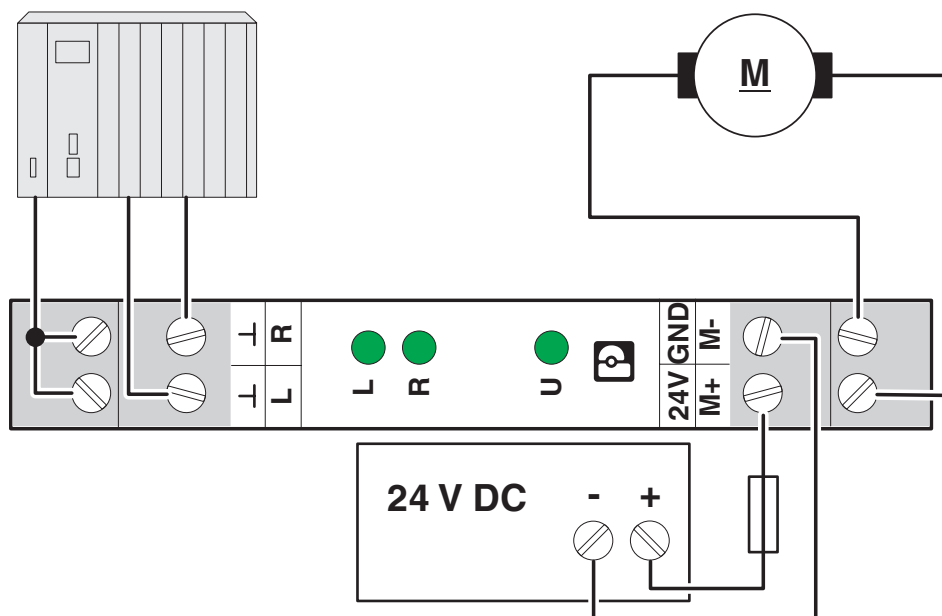
Example application

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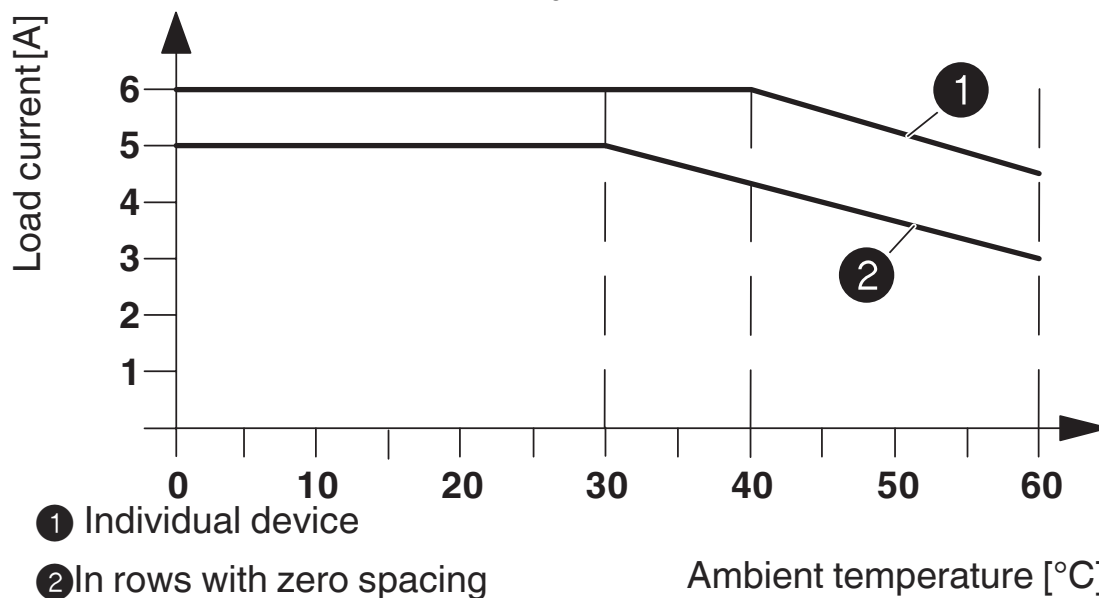
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Connection diagram



Diagram

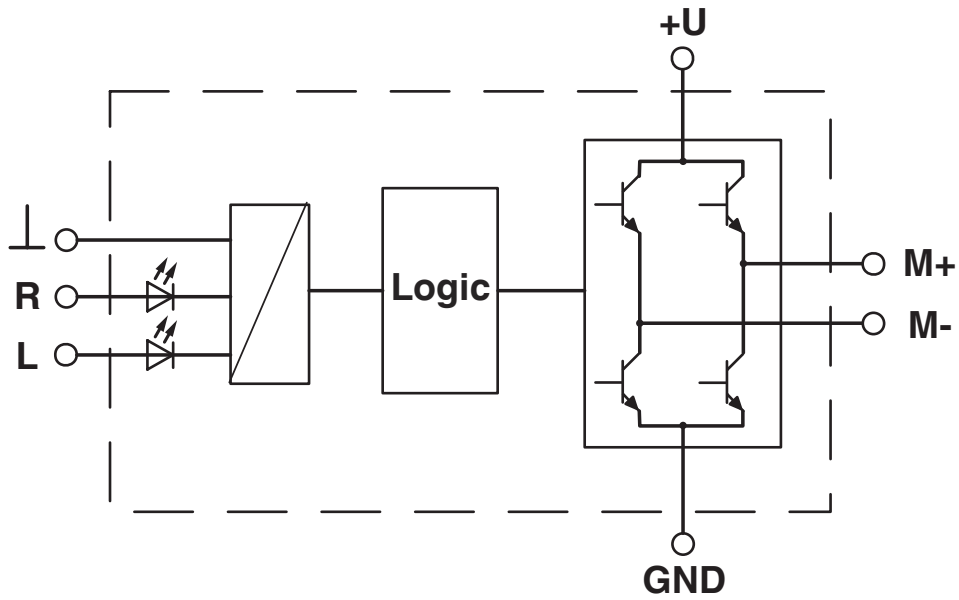


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Block diagram



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## Classifications

### ECLASS

ECLASS-13.0

27371018

### ETIM

ETIM 9.0

EC002552

### 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	845586cb-3ca9-4ee4-b734-70e61ddf1188

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