

# Reversing load relay - ELR W1/ 2-24DC - 2963598


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Electronic reversing load relay, for driving DC motors, with light indicator and protection circuit, output: 10-30 V DC/2 A



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 943592
GTIN	4017918943592

## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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### Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

### Ambient conditions

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

### Input data

Input name	Device supply
Nominal supply voltage	24 V DC ±20 %
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

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## Technical data

### Input data

Protective circuit	Surge protection
Operating voltage display	Green LED
Status display	LED yellow, forward running (R), LED yellow, reverse running (L)
Input name	Control input right/left
Nominal input voltage $U_N$	24 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.2
Input voltage range	19.2 V DC ... 28.8 V DC
Typical input current at $U_N$	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
Protective circuit	Reverse polarity protection
	Surge protection
Surge voltage protection	> 33 V DC
Typical response time	200 $\mu$ s
Status display	LED yellow, forward running (R), LED yellow, reverse running (L)
Current consumption	3 mA
Switchover time $R_L/L_L$ (turn-on time)	80 ms

### Output data load output

Output name	DC output
Rated operating voltage $U_e$	24 V DC
Operating voltage range	10 V DC ... 30 V DC
Type of protection	Reverse polarity protection
	Surge protection

### General

Test voltage input/output	2.5 kV <sub>rms</sub>
Mounting position	vertical (horizontal DIN rail, motor output below)
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor

### Connection data

Connection name	Control circuits
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	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
Torque	0.5 Nm ... 0.6 Nm
	5 lb <sub>f</sub> -in. ... 7 lb <sub>f</sub> -in.

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### Technical data

#### Connection data 2

Connection name	Load circuit
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	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
Torque	0.5 Nm ... 0.6 Nm
	5 lb <sub>f</sub> -in. ... 7 lb <sub>f</sub> -in.

#### Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	EN 50178
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	III

#### Conformance/approvals

Designation	UL approval
Certificate	NLDX.E228652

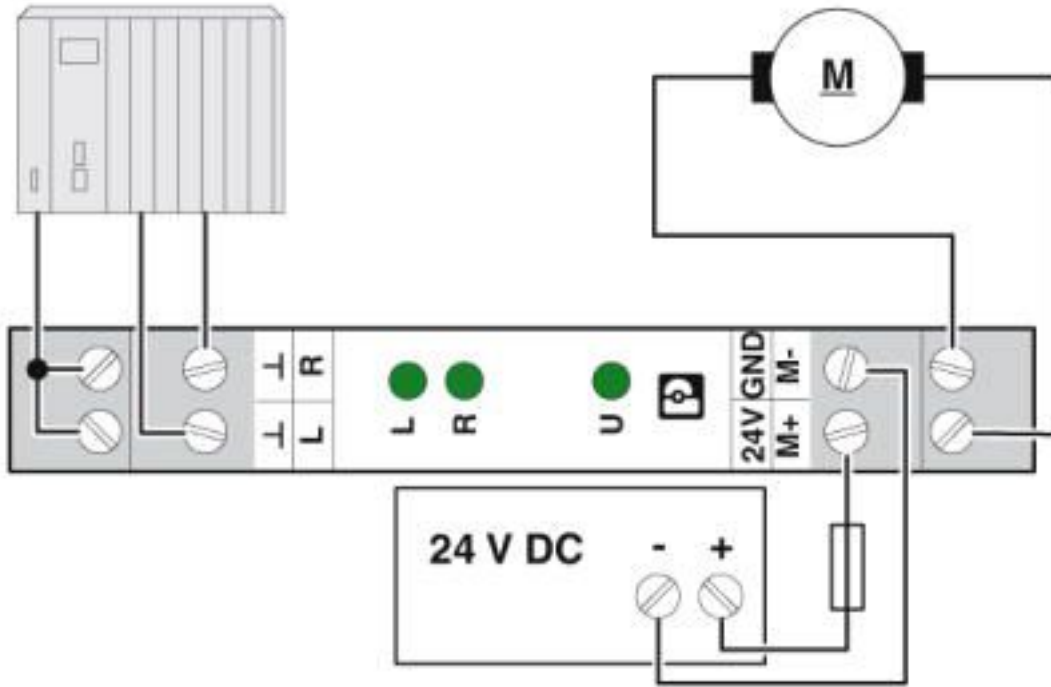
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

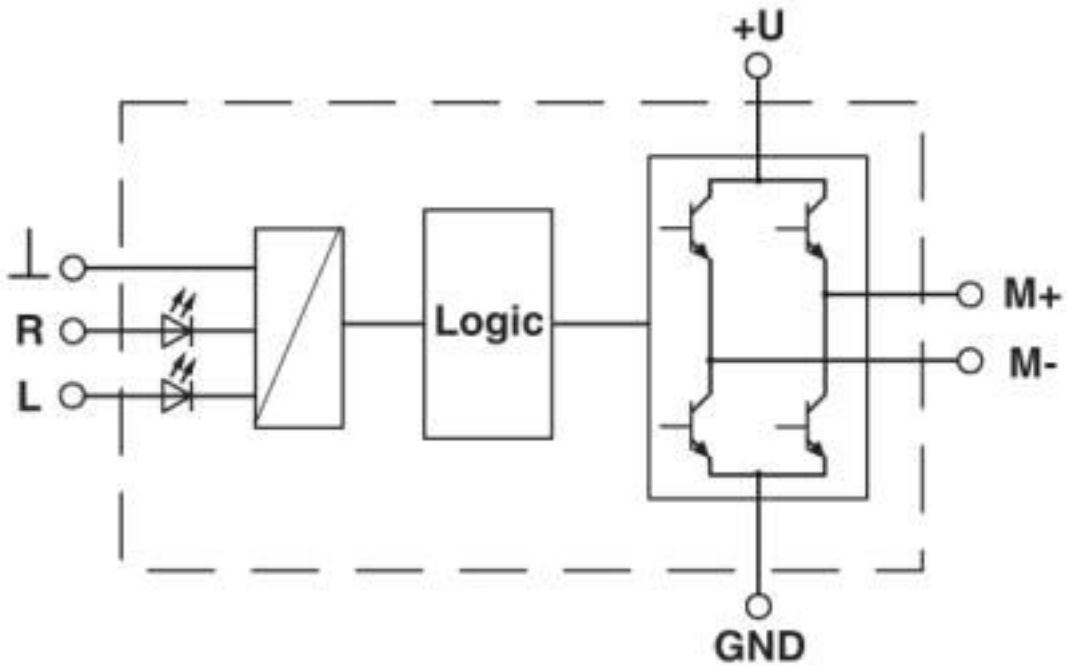
### Drawings

# Reversing load relay - ELR W1/ 2-24DC - 2963598

Connection diagram



Block diagram



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## Classifications

### eCl@ss

eCl@ss 10.0.1	27371014
eCl@ss 4.0	27371100
eCl@ss 4.1	27371100
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371000
eCl@ss 7.0	27371014
eCl@ss 8.0	27371014
eCl@ss 9.0	27371014

### ETIM

ETIM 4.0	EC002055
ETIM 5.0	EC002055
ETIM 6.0	EC002055
ETIM 7.0	EC002055

### UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	39121514
UNSPSC 18.0	39122333
UNSPSC 19.0	39122333
UNSPSC 20.0	39122333
UNSPSC 21.0	39122333

## Approvals

### Approvals

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Approvals

UL Listed / cUL Listed / EAC / cULus Listed

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Ex Approvals


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### Approval details


## Reversing load relay - ELR W1/ 2-24DC - 2963598

### Approvals

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 228652
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 228652
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EAC			TR_TS_D_00573_c
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cULus Listed			
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