

ELR W1/ 6-24DC - Reversing load relay



2982090

<https://www.phoenixcontact.com/us/products/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	CK7622
Catalog page	Page 46 (C-5-2019)
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

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	CONTACTRON
Operating mode	100% operating factor

Insulation characteristics

Insulation	Basic insulation
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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 _{rms} (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 μ 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

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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)
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 ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm
	5 lb _F -in. ... 7 lb _F -in.

Load circuit

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²
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	5 lb _F -in. ... 7 lb _F -in.

Signaling

Status display	Yellow LED
Operating voltage display	Green LED

Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Environmental and real-life conditions

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Ambient conditions

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

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 instructions	alignable, for spacing see derating
Mounting position	vertical (horizontal DIN rail, motor output below)

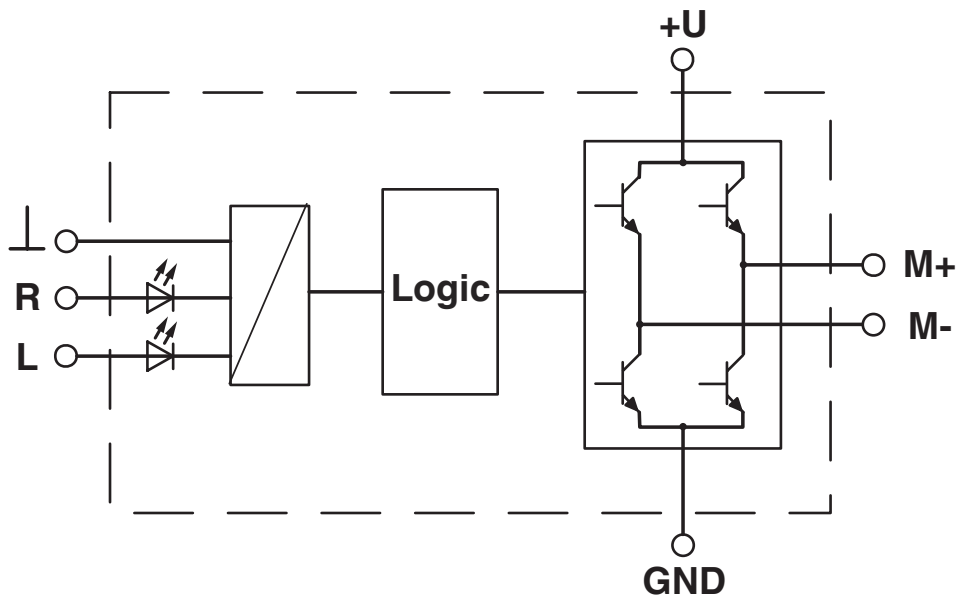
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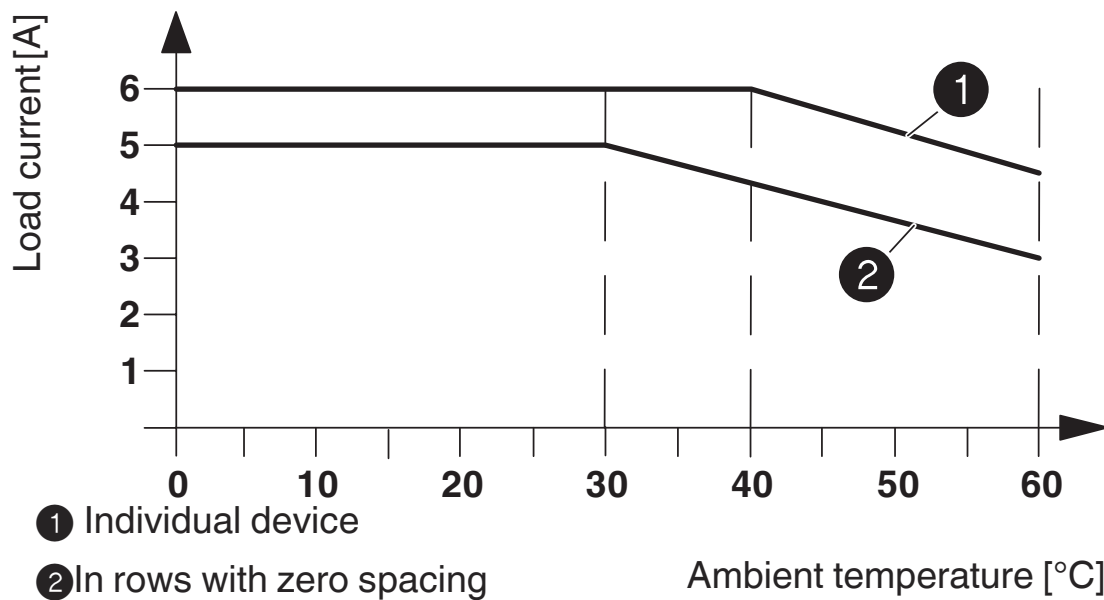
<https://www.phoenixcontact.com/us/products/2982090>

Drawings

Block diagram



Diagram



① Individual device

② In rows with zero spacing

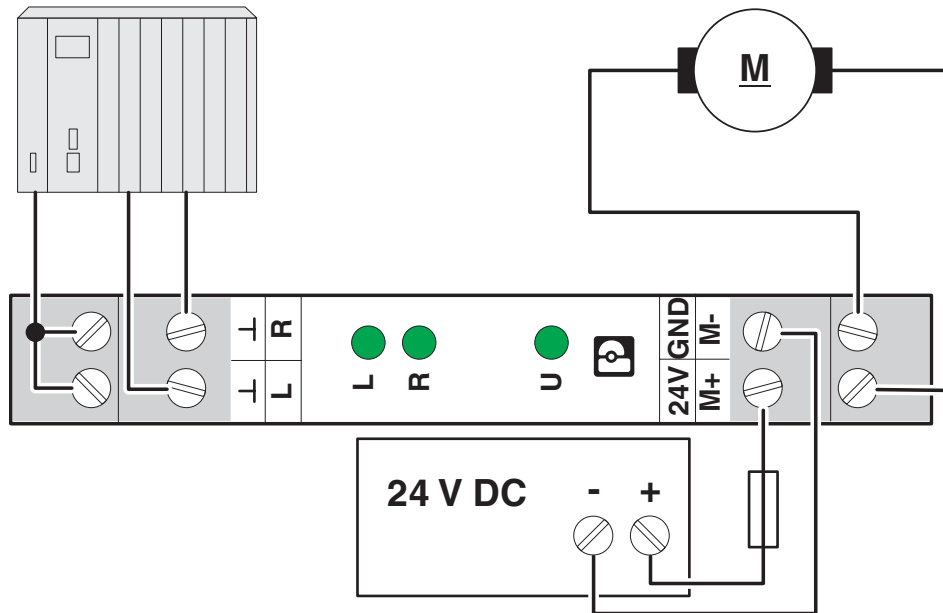
Ambient temperature [°C]

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Connection diagram

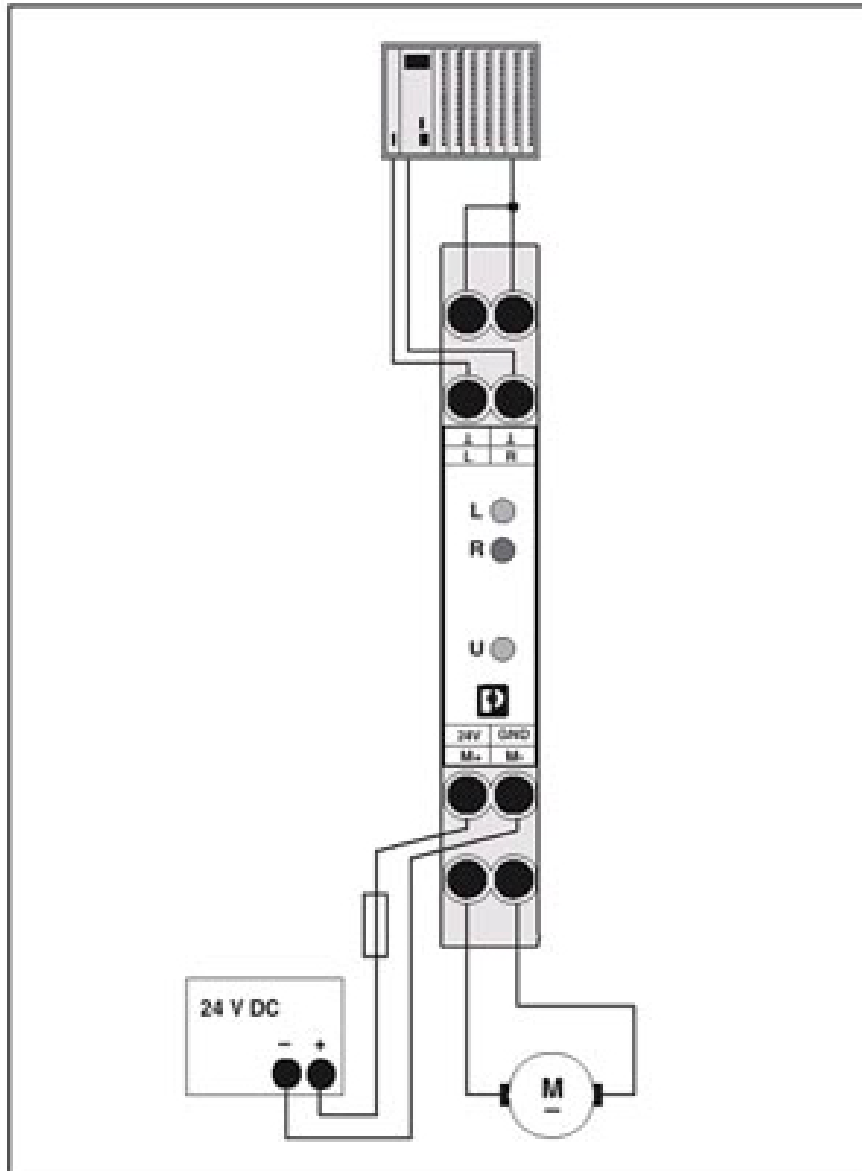


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Application drawing



Example application

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Approvals

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EAC

Approval ID: TR_TS_D_00573_c



UL Listed

Approval ID: FILE E 228652



cUL Listed

Approval ID: FILE E 228652

cULus Listed

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002552
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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