

# RIF-1-RSC-LDP-24DC/2X21/FG - Relay module



2909848

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Preassembled relay module with screw connection, consisting of: relay base, safety relay with force-guided contacts in accordance with DIN EN 61810-3, plug-in display/interference suppression module, and retaining bracket, contact switching type: 2 changeover contacts, input voltage: 24 V DC

## Commercial data

Item number	2909848
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C465
Product key	DK651D
GTIN	4055626394596
Weight per piece (including packing)	75 g
Weight per piece (excluding packing)	72 g
Customs tariff number	85364110
Country of origin	CN

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## Set consists of

### REL-SR- 24DC/2X21/FG X - Safety relays

1473564

<https://www.phoenixcontact.com/us/products/1473564>



Relay with force-guided contacts in accordance with DIN EN 61810-3, contact switching type: 2 changeover contacts. The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

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### RIF-LDP-12-24 DC - Plug-in module

2900939

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Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 V DC ... 24 V DC  $\pm 30\%$

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## RIF-RH-1-H - Retaining bracket

2904468

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Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 25 mm tall miniature power relay and solid-state relay

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## Technical data

### Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Forcibly guided contacts
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles
B <sub>10d</sub> (AC1)	600000 Cycles (250 V / 6 A; 1 NO)
	900000 Cycles (250 V / 3 A; 1 NO)
	1800000 Cycles (250 V / 1,5 A; 1 NO)
B <sub>10d</sub> (AC15)	180000 Cycles (250 V / 3 A; 1 NO)
	560000 Cycles (250 V / 2 A; 1 NO)
	4600000 Cycles (250 V / 0,75 A; 1 NO)
B <sub>10d</sub> (DC13)	300000 Cycles (24 V / 3 A; 1 NO)
	1000000 Cycles (24 V / 1,5 A; 1 NO)
	3000000 Cycles (24 V / 0,75 A; 1 NO)

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

Insulation	Safe isolation between input and output
	Basic insulation between the changeover contacts
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	04.02.2026
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### Electrical properties

Maximum power dissipation for nominal condition	0.72 W
Test voltage (Winding/contact)	4 kV <sub>rms</sub> (50 Hz, 60 s)
Test voltage (open contact)	1.5 kV <sub>rms</sub> (50 Hz, 60 s)
Test voltage (Changeover contact/changeover contact)	2.5 kV <sub>rms</sub> (50 Hz, 60 s)

Air clearances and creepage distances between the power circuits

Rated insulation voltage	250 V AC (Input/output)
Rated surge voltage	6 kV (Input/output)
	4 kV (between the changeover contacts)

Short-circuit protection device

Current	10 A (RT28-32)
Voltage	500 V (SCPD)
Short-circuit current	1 kA (conditional short-circuit current)

### Input data

Coil side

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Nominal operating voltage $U_N$	24 V DC
Input voltage range	20.4 V DC ... 28.8 V DC (20 °C)
Input voltage range in reference to $U_N$	see diagram
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	30 mA
Typical response time	15 ms
Typical release time	10 ms
Coil voltage	24 V DC
Protective circuit	Freewheeling diode
Operating voltage display	Yellow LED

## Output data

### Switching

Contact switching type	2 changeover contacts, forcibly actuated
Type of switch contact	Single contact
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	144 W (24 V DC) 58 W (48 V DC) 54 W (60 V DC) 55 W (110 V DC) 55 W (220 V DC) 1500 VA (250 V AC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 3 A/240 V (N/O contact)

## Connection data

Connection method	Screw connection
Stripping length	8 mm
Conductor cross-section rigid	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross-section rigid (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)
Conductor cross-section flexible (2 conductors with same cross section)	0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)
Conductor cross-section AWG	20 ... 10 (solid) 20 ... 12 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

## Dimensions

### Item dimensions

Width	16 mm
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Height	90 mm
Depth	75 mm

## Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V2 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT I (Relay)
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### CE

Certificate	CE-compliant
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### UKCA

Certificate	UKCA-compliant
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### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

## Standards and regulations

### All specifications in accordance with the standard

Standards/regulations	IEC 60947-5-1
	IEC 61810-3

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

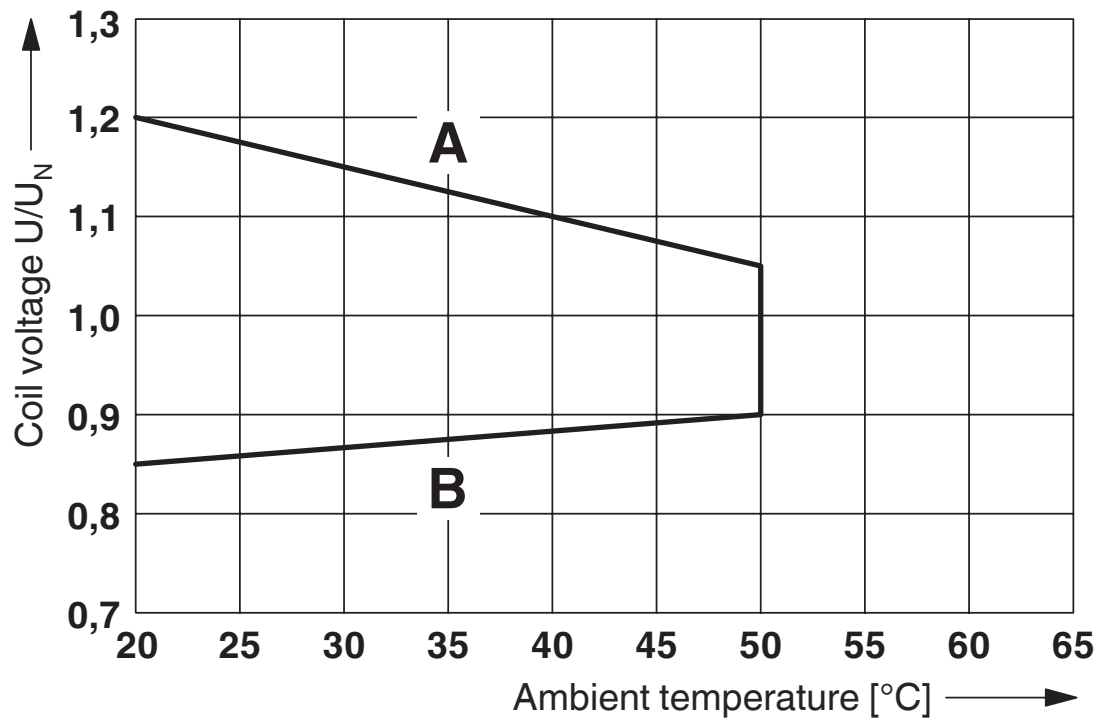
Standards/regulations	DIN EN 60947-5-1
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## Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

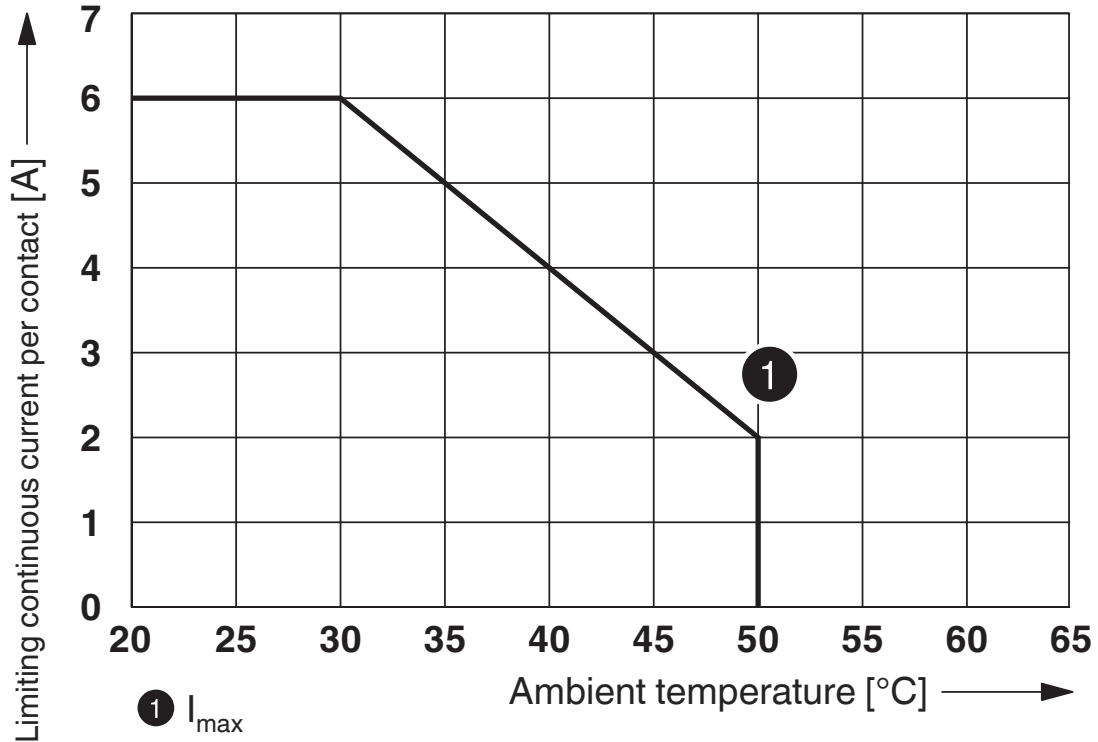
Drawings

Diagram



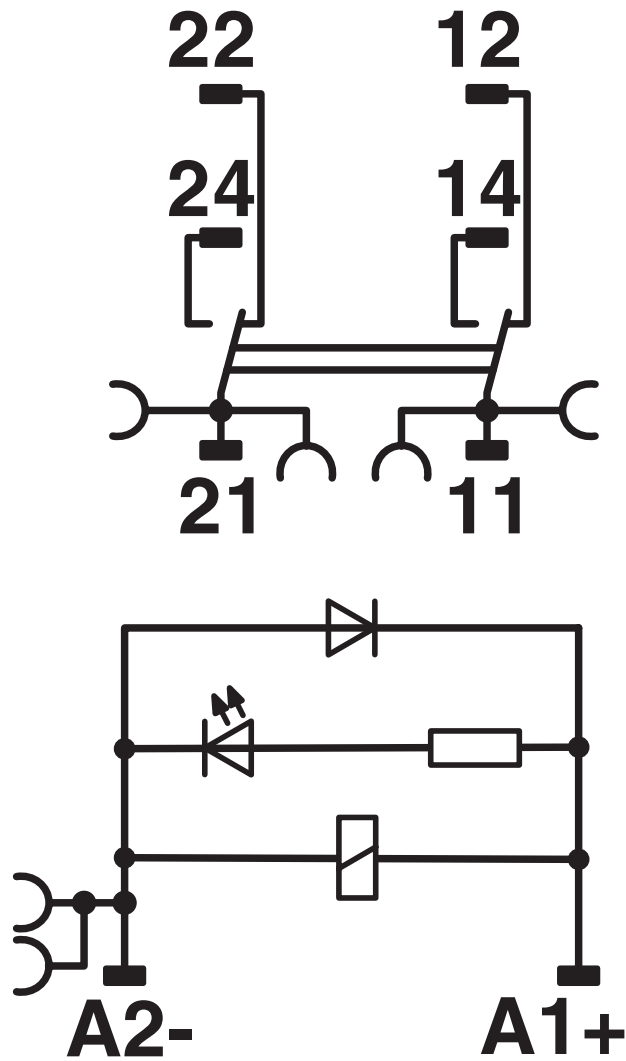
Operating voltage range

Diagram



Contact derating

Circuit diagram



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## Classifications

### ECLASS

ECLASS-13.0

27371601

### ETIM

ETIM 9.0

EC001437

### 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	39d28aeb-bbcb-4df7-b521-b02a42981407

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