

# REL-IR4/24DC/4X21/EX - Single relay



2909738

<https://www.phoenixcontact.com/us/products/2909738>

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Pluggable industrial relay, RT III sealed with power contacts, 4x changeover contacts, mechanical switch position indicator, polarity: non-polarized, input voltage: 24 V DC, in connection with RIF-2.../EX bases approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

## Commercial data

Item number	2909738
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CK694H
Catalog page	Page 345 (C-5-2019)
GTIN	4055626379685
Weight per piece (including packing)	35.43 g
Weight per piece (excluding packing)	35.43 g
Customs tariff number	85364190
Country of origin	PL

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## Technical data

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	1x 10 <sup>7</sup> cycles, approximately
Date of last data management	02.05.2024

### Insulation characteristics

Insulation	Basic insulation
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Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	0.91 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact)
Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	24 V DC
Input voltage range	18.7 V DC ... 46.8 V DC
Input voltage range in reference to U <sub>N</sub>	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U <sub>N</sub>	38 mA
Typical response time	13 ms
Typical release time	3 ms

### Output data

#### Switching

Contact switching type	4 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (At 24 mA)
Limiting continuous current	6 A
Maximum inrush current	16 A (20 ms, N/O contacts)

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	12 A (4 s, N/O contacts)
Min. switching current	5 mA (at 24 V)
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
	124 W (at 48 V DC)
	108 W (at 60 V DC)
	52 W (at 110 V DC)
	48 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity min.	0.12 W
Switching capacity	2 A (at 24 V, DC13)
	1 A (at 230 V, AC15)
Motor load according to UL 508	1/3 HP, 240 V AC

## Connection data

Connection method	Plug-in connection
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## Dimensions

Width	21.2 mm
Height	27.5 mm
Depth	35.6 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

### Corrosive gas test

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

## Standards and regulations

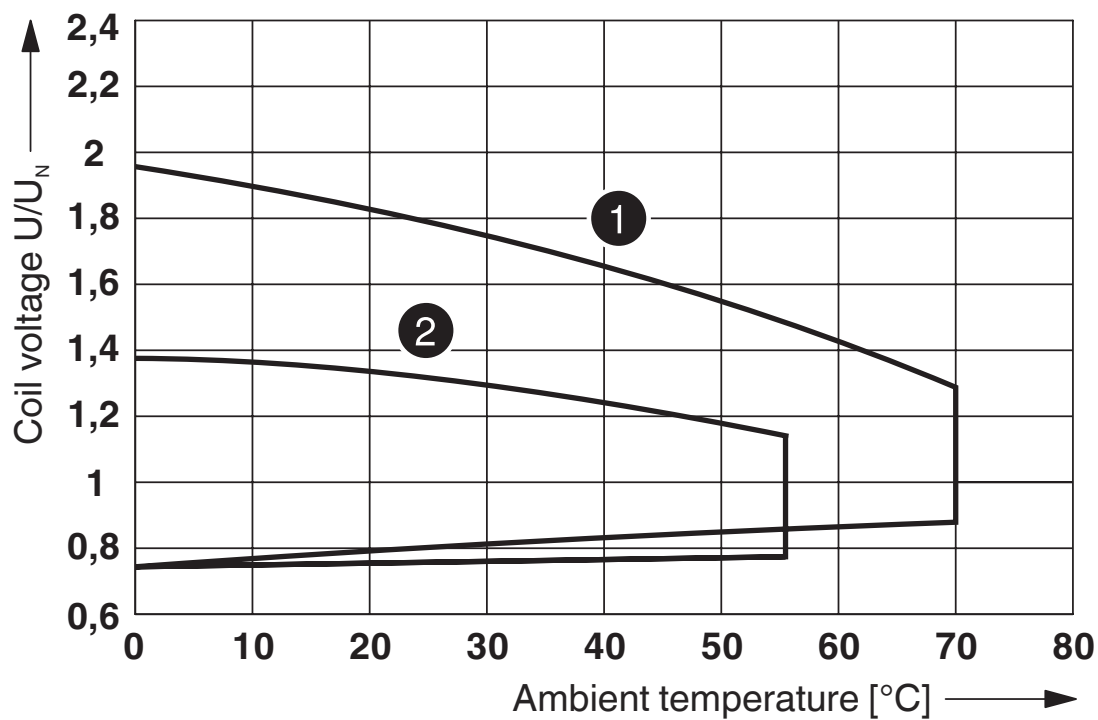
Standards/regulations	IEC 60664
	IEC 61810

## Mounting

Mounting position	any
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## Drawings

Diagram



① DC coils

② AC coils

Operating voltage range

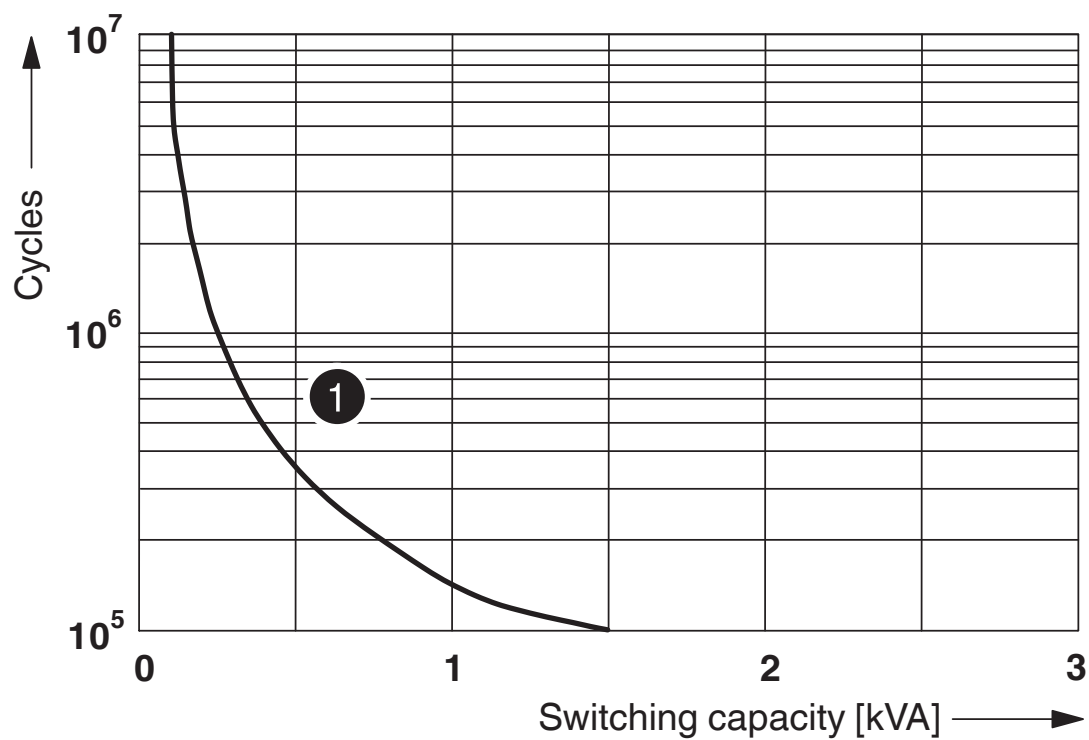
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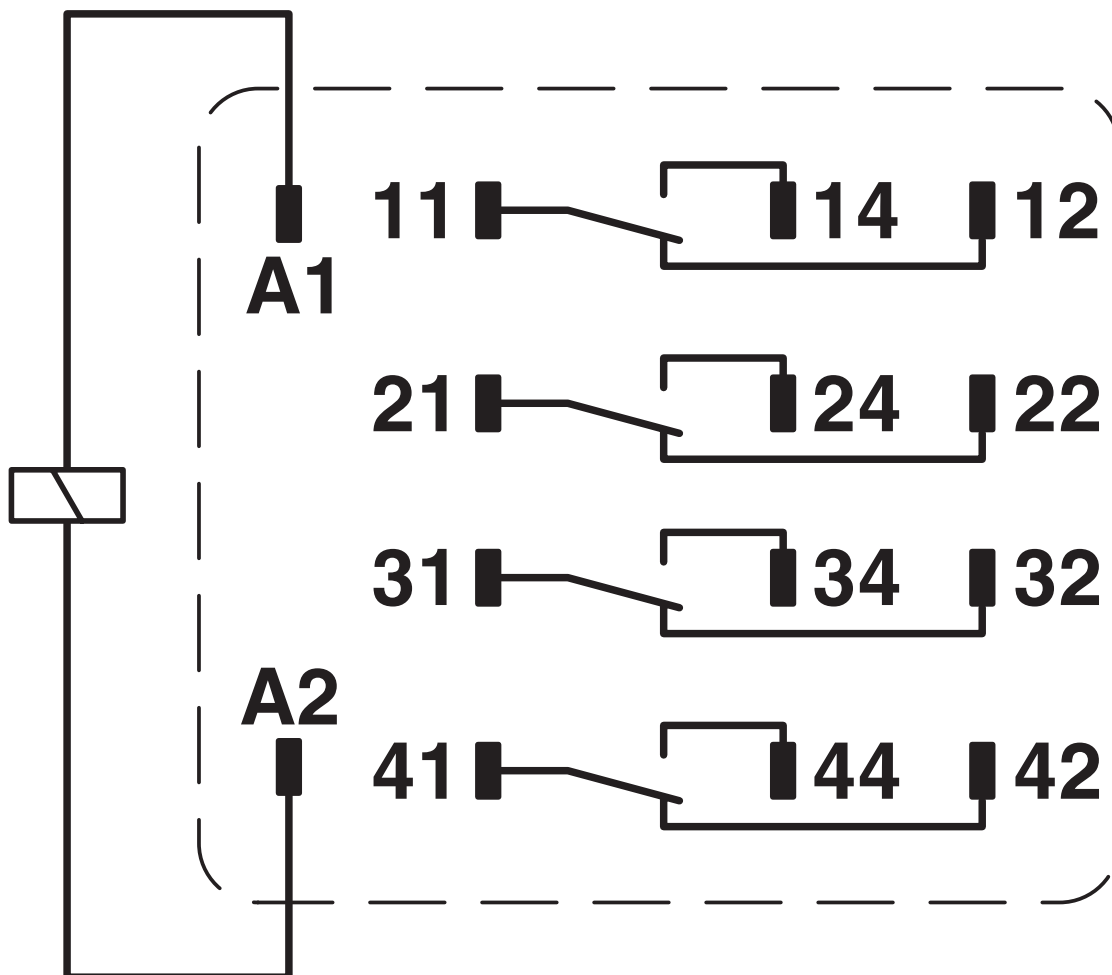
Diagram



① 250 V AC, Ohmic load

Electrical service life

Circuit diagram



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Diagram



Service life reduction factor



Permissible humidity for operation and storage.

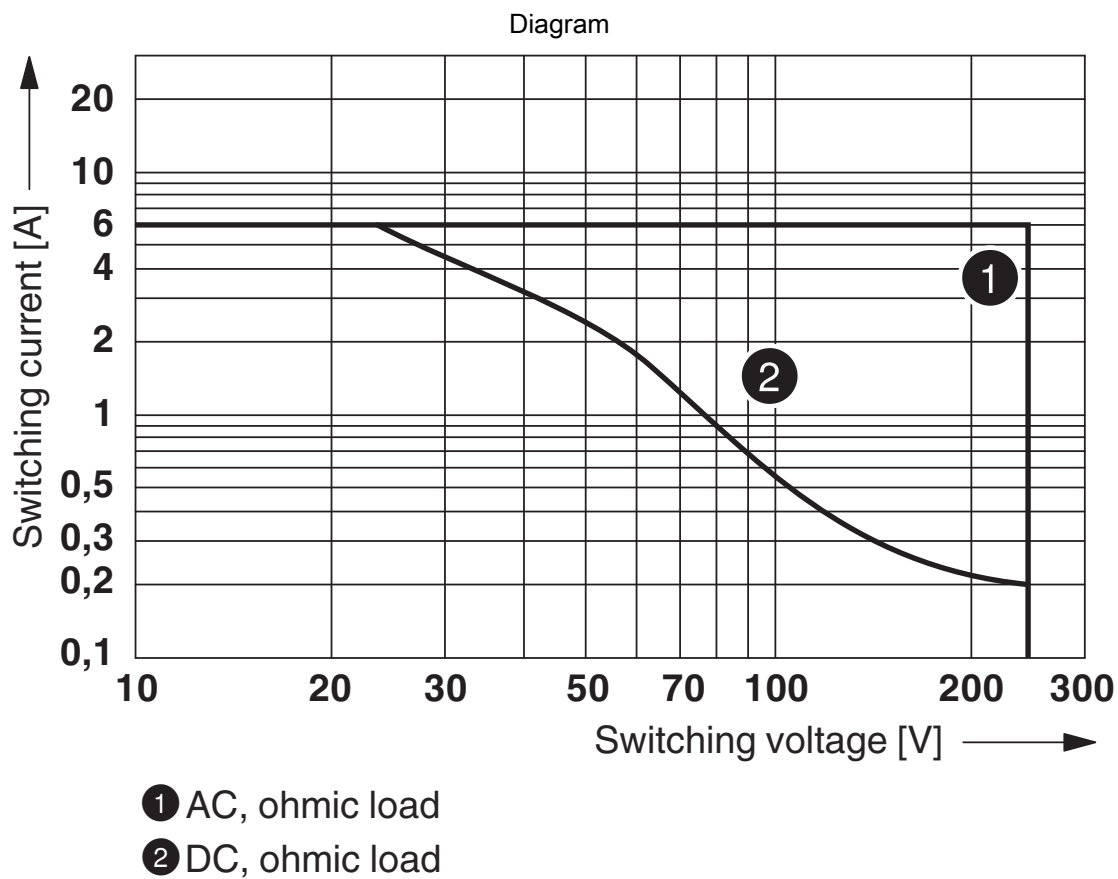
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^{\circ}\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^{\circ}\text{C}$ .





Interrupting rating

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## Approvals


To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909738>




**cUL Recognized**  
Approval ID: FILE E 172140



**UL Recognized**  
Approval ID: FILE E 172140



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



**EAC**  
Approval ID: RU\*C-DE.\*08.B.00010

**cULus Recognized**

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## Classifications

### ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

### ETIM

ETIM 9.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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## Mandatory accessories

### RIF-2-BPT/4X21/EX - Relay base

1047028

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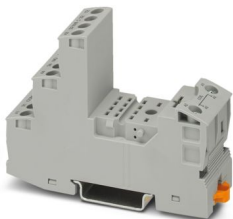


RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, Push-in connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

### RIF-2-BSC/4X21/EX - Relay base

1047031

<https://www.phoenixcontact.com/us/products/1047031>



RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, screw connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

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