

# RIF-2-RSC-LV-120AC/4X21/EX - Relay Module



2909846

<https://www.phoenixcontact.com/in/products/2909846>

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Pre-assembled relay module consisting of: relay base, function plug-in module, power contact relay, and retaining bracket, approval in accordance with ATEX/IECEX (Zone 2) and Ex Zone Class I, Div. 2, Screw connection, 4 changeover contacts, Varistor, Input voltage: 120 V AC

## Product Description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

## Commercial Data

Item number	2909846
Packing unit	10 pc
Minimum order quantity	1 pc
Sales Key	CK6
Product Key	CK651A
Catalog Page	Page 344 (C-5-2019)
GTIN	4055626395494
Weight per Piece (including packing)	117 g
Weight per Piece (excluding packing)	117 g
Customs tariff number	85364900
Country of origin	CN

## 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	Relay Module
Product family	RIFLINE complete
Application	Class I, Division 2 potentially explosive areas
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

#### Insulation characteristics

Insulation	Basic insulation
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#### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III II (Zone 2)
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	1.7 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2 kV <sub>rms</sub> (50 Hz, 1 min., contact/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

### Input data

#### Coil side

Nominal input voltage $U_N$	120 V AC
Input voltage range	96 V AC ... 144 V AC (20 °C)
Input voltage range in reference to $U_N$	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	13 mA
Typical response time	5 ms ... 15 ms
Typical release time range	5 ms ... 20 ms
Coil voltage	120 V AC
Protective circuit	Varistor

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Operating voltage display	Yellow LED
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## Output data

### Switching

Contact 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 (24 mA)
Limiting continuous current	5 A (see diagram)
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	5 mA (24 V)
Interrupting rating (ohmic load) max.	120 W (24 V DC) 124 W (48 V DC) 108 W (60 V DC) 52 W (110 V DC) 48 W (220 V DC) 1250 VA (250 V AC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 1 A/240 V (N/O contact) DC13, 2 A/24 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

Width	27 mm
Height	89 mm
Depth	75 mm

## Material specifications

Flammability rating according to UL 94	V2 (Housing)
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## Environmental and real-life conditions

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## Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT III (Relay)
Ambient temperature (operation)	-40 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

### ATEX

Identification	Ⓜ II 3G Ex ec nC IIC T4 Gc
Certificate	IBExU17ATEXB014X

### UKCA Ex (UKEX)

Identification	Ⓜ II 3G Ex ec nC IIC T4 Gc
Certificate	PxclF21UKEX2909741X

### IECEX

Identification	Ex ec nC IIC T4 Gc
Certificate	IECEX IBE 17.0032X

### UL, USA/Canada

Identification	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC

### Corrosive gas test

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

## Standards and regulations

Standards/regulations	IEC 60947-5-1
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### Ex zone

Standards/regulations	EN/IEC 60079-0
	EN/IEC 60079-7
	EN/IEC 60079-15

## Mounting

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

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