

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

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Pre-assembled relay modules with push-in connection, consisting of: relay base, power contact relay, plug-in display/suppressor module, and retaining bracket. Input voltage: 120 V AC, 2 PDTs

The figure shows the 24 V DC version



### Key commercial data

Packing unit	1 pc
Custom tariff number	85364900
Country of origin	Germany

### Technical data

#### Dimensions

Width	43 mm
Height	111 mm
Depth	90 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 40 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

#### Coil side

Nominal input voltage $U_N$	120 V AC
Input voltage range in reference to $U_N$	(see diagram)
Nominal input current at $U_{IN}$	24 mA
Typical response time	5 ms ... 25 ms
Typical release time range	5 ms ... 20 ms
Operating voltage display	Yellow LED
Protective circuit	Varistor

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Technical data

#### Contact side

Contact type	2 PDT
Contact material	AgNi
Maximum switching voltage	440 V AC
	250 V DC
Minimum switching voltage	10 V (At 24 mA)
Maximum inrush current	50 A (20 ms, N/O contact)
Min. switching current	10 mA (at 24 V)
Limiting continuous current	9 A (see diagram)
Interrupting rating (ohmic load) max.	216 W (at 24 V DC)
	124 W (at 48 V DC)
	108 W (at 60 V DC)
	52 W (at 110 V DC)
	70 W (at 220 V DC)
	2250 VA (for 250 V AC)
	4000 VA (At 440 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (24 V (DC13))
	1.5 A (230 V (AC 15))
Motor load according to UL 508	1/3 HP, 120 V AC (single-phase AC motor)
	1/2 HP, 240 V AC (single-phase AC motor)

#### Connection data

Connection method	Push-in connection
Connection name	Input
Connection method	Push-in connection
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	16
Stripping length	8 mm
Connection name	Output
Connection method	Push-in connection
Conductor cross section solid min.	0.14 mm <sup>2</sup>

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Technical data

#### Connection data

Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve min.	0.14 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	14
Stripping length	10 mm

#### General

Test voltage relay winding/relay contact	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage relay contact/relay contact	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay socket)
	RT I (Relay)
Mechanical service life	Approx. 10 <sup>7</sup> cycles
Standards/regulations	DIN EN 50178
	IEC 62103
Rated insulation voltage	250 V AC
Pollution degree	2
Surge voltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

### Articles in set

Relay socket - RIF-4-BPT/3X21 - 2900961



RIF-4... relay base, for high-power relay with 2 or 3 PDTs or 3 N/O contacts, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Articles in set

Single relay - REL-PR2-120AC/2X21 - 2903700



Plug-in high-power relay with power contacts, 2 PDTs, coil voltage: 120 V AC

Plug-in module - RIF-LV-120-230 AC/110 DC - 2900944



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor and yellow LED, input voltage: 120 - 230 V AC/110 V DC  $\pm 20\%$

Retaining bracket - RIF-RH-4 - 2900956



Relay retaining bracket, with holder for marking material, suitable for RIF-4 relay base, for high-power relay

## Classifications

### eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371603
eCl@ss 5.1	27371603
eCl@ss 6.0	27371603
eCl@ss 7.0	27371603
eCl@ss 8.0	27371603

### ETIM

ETIM 3.0	EC001456
ETIM 4.0	EC001456
ETIM 5.0	EC001437

# Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

## Classifications

### UNSPSC

UNSPSC 6.01	30211917
UNSPSC 7.0901	39121516
UNSPSC 11	39121516
UNSPSC 12.01	39121516
UNSPSC 13.2	39121516

## Approvals

### Approvals

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Approvals

CSA

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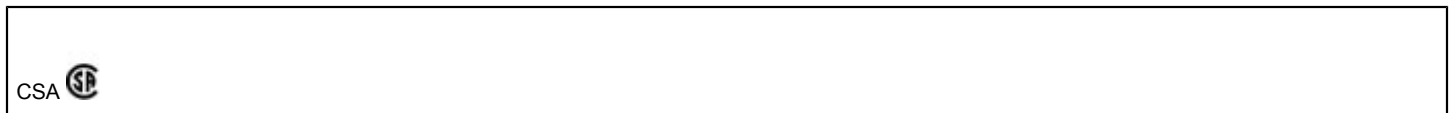
Ex Approvals

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Approvals submitted

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### Approval details



## Accessories

Accessories

Bridge

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, Number of positions: 2, Color: red

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Accessories

Plug-in bridge - FBS 2-6 BU - 3036932



Plug-in bridge, Number of positions: 2, Color: blue

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Plug-in bridge - FBS 2-6 GY - 3032237



Plug-in bridge, Number of positions: 2, Color: gray

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Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, Number of positions: 5, Color: red

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Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, Number of positions: 10, Color: red

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Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, Number of positions: 20, Color: red

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## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Accessories

Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, Number of positions: 50, Color: red

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### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

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Insulating sleeve - MPS-IH RD - 0201676



Insulating sleeve, Color: red

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Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue

## Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

### Accessories

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Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 5.2 mm, Lettering field: 5.1 x 10.5 mm

# Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

## Accessories

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 15.2 mm, Lettering field: 10.5 x 15.1 mm

## Test plug terminal block

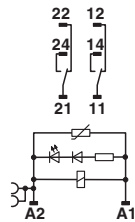
Test plugs - MPS-MT - 0201744



Test plugs, Color: silver

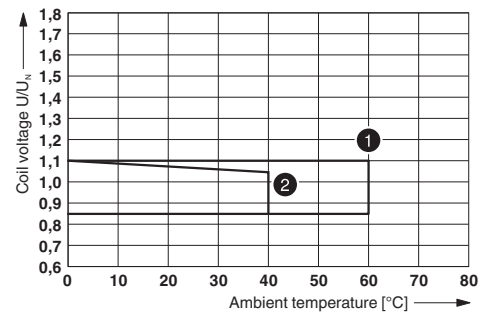
## Drawings

Circuit diagram



AC coils

Diagram

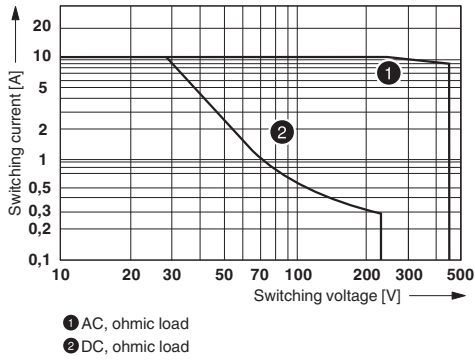


- ① DC coil (observe contact derating)
- ② AC coil (observe contact derating)

Operating voltage range

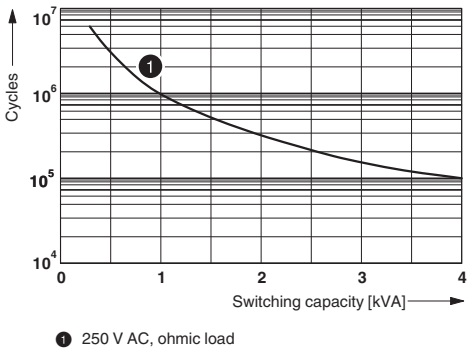
# Relay Module - RIF-4-RPT-LV-120AC/2X21 - 2903280

Diagram



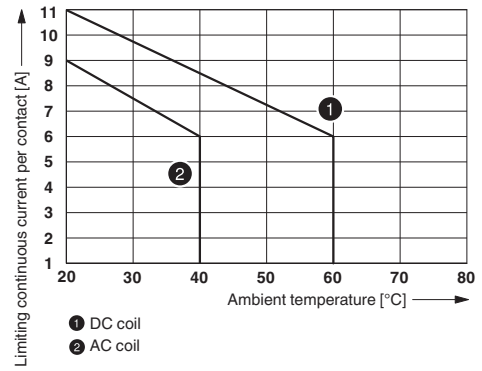
Interrupting rating

Diagram



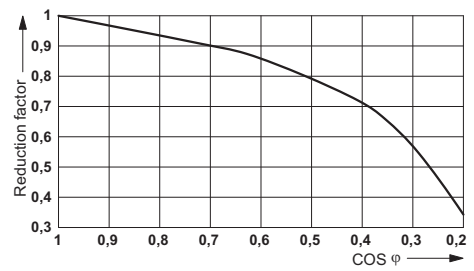
Electrical service life

Diagram



Contact derating

Diagram



Service life reduction factor