

## Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

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

The figure shows the 24 V DC version



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	68.0 GRM
Custom tariff number	85364900
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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#### Dimensions

Width	16 mm
Height	93 mm
Depth	75 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 50 °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
Typical input current at $U_N$	8 mA

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### Technical data

#### Coil side

Typical response time	3 ms ... 12 ms
Typical release time range	3 ms ... 20 ms
Operating voltage display	Yellow LED
Protective circuit	Varistor

#### Contact side

Contact type	2 PDT
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Maximum inrush current	12 A (20 ms, N/O contact)
Min. switching current	10 mA (At 5 V)
Limiting continuous current	8 A (see diagram)
Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
	124 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	57 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 250 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 250 V, AC15)

#### Connection data

Connection method	Push-in connection
Stripping length	8 mm
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 solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid 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 max	16
Conductor cross section AWG/kcmil min.	26

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### Technical data

#### General

Type of note	Notes on operation
Note	FBS 2-6... plug-in bridge for the input side (A2) and FBS-2-8... plug-in bridge for the output side (11/21)
Test voltage relay winding/relay contact	4 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay socket)
	RT III (Relay)
Mechanical service life	Approx. 10 <sup>7</sup> cycles
Standards/regulations	DIN EN 50178
	IEC 62103
Pollution degree	2
Surge voltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

### Articles in set

#### Relay socket - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

#### Single relay - REL-MR-120AC/21-21 - 2961448



Plug-in miniature power relay, with power contact, 2 PDTs, input voltage 120 V AC

# Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

## Articles in set

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-1 - 2900953



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-1 relay base, for 16 mm tall miniature power relay and solid-state 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

### UNSPSC

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

## Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

### Accessories

#### Accessories

#### 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-1-RPT-LV-120AC/2X21 - 2903332

### Accessories

Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

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Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

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Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

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Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

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### Jumper

Plug-in bridge - FBS 2-6 - 3030336



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

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## Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

### 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 2-8 - 3030284



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

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Plug-in bridge - FBS 2-8 BU - 3032567



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

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Plug-in bridge - FBS 2-8 GY 7042 - 3032541



Bridge for potential distribution

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### Terminal marking

# Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

## Accessories

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

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

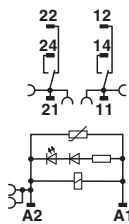
Test plugs - MPS-MT - 0201744



Test plugs, Color: silver

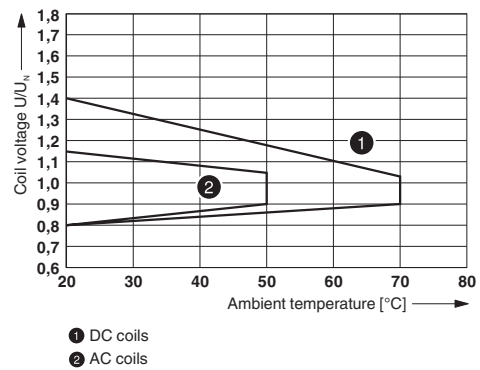
## Drawings

Circuit diagram



AC coils

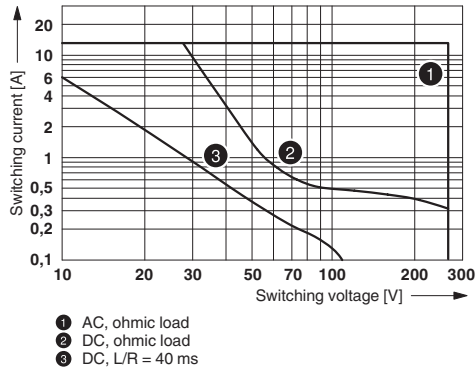
Diagram



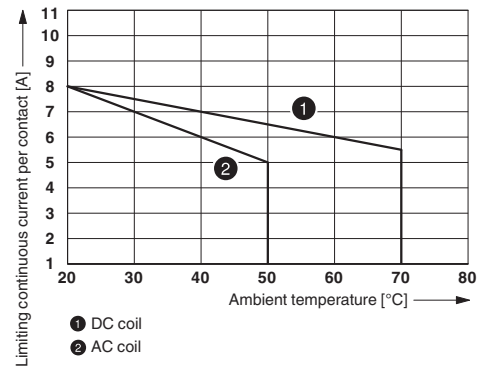
Operating voltage range

# Relay Module - RIF-1-RPT-LV-120AC/2X21 - 2903332

Diagram



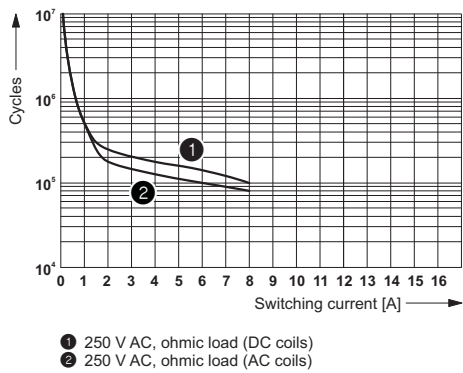
Diagram



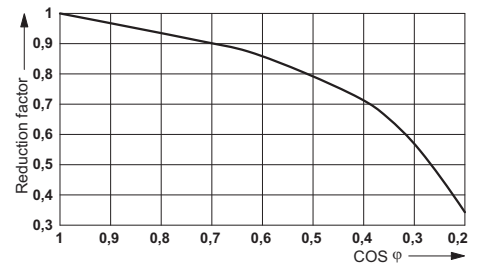
Interrupting rating

Contact derating

Diagram



Diagram



Electrical service life

Service life reduction factor