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## Relay Module - RIF-1-RPT-LV-230AC/1X21MS - 2905290

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Pre-assembled relay module with push-in connection, consisting of: relay base, relay retaining bracket, plug-in suppressor module, and power contact relay with test button and integrated status LED. Contact type: 1 PDT. Input voltage: 230 V AC

The figure shows the 24 V DC version

RoHS

### Key Commercial Data

Packing unit	10 STK
GTIN	 4 046356 944663
GTIN	4046356944663

### 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 $U_N$	230 V AC (50/60 Hz)
Input voltage range in reference to $U_N$	see diagram
Typical input current at $U_N$	3.5 mA
Typical response time	4 ms ... 10 ms
Typical release time range	3 ms ... 20 ms

# Relay Module - RIF-1-RPT-LV-230AC/1X21MS - 2905290

## Technical data

### Coil side

Coil voltage	230 V AC
Protective circuit	Varistor
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.81 W

### Contact side

Contact type	1 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	32 A (20 ms, N/O contact)
Limiting continuous current	see diagram
Interrupting rating (ohmic load) max.	264 W (at 24 V DC)
	62 W (at 48 V DC)
	48 W (at 60 V DC)
	52 W (at 110 V DC)
	66 W (at 220 V DC)
	2500 VA (for 250 V AC)
Switching capacity min.	120 mW
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	3 A (at 240 V, AC15)

### Connection data input side

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (with or without ferrule)
Conductor cross section flexible (2 conductors with same cross section)	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve)
	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrules without plastic sleeve)
Conductor cross section AWG	26 ... 16

### Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (with or without ferrule)
Conductor cross section flexible (2 conductors with same cross section)	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve)
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# Relay Module - RIF-1-RPT-LV-230AC/1X21MS - 2905290

## Technical data

### Connection data output side

Conductor cross section AWG	26 ... 16
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### General

Test voltage relay winding/relay contact	4 kV <sub>rms</sub> (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay socket)
	RT II (Relay)
Mechanical service life	Approx. 5 x 10 <sup>6</sup> cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

### Standards and Regulations

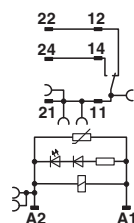
Standards/regulations	DIN EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	safe isolation
Degree of pollution	2
Overvoltage category	III

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

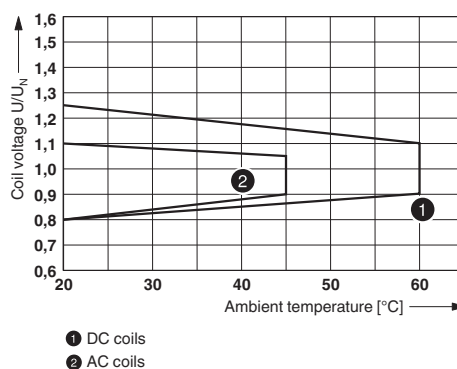
## Drawings

Circuit diagram



AC coils

Diagram

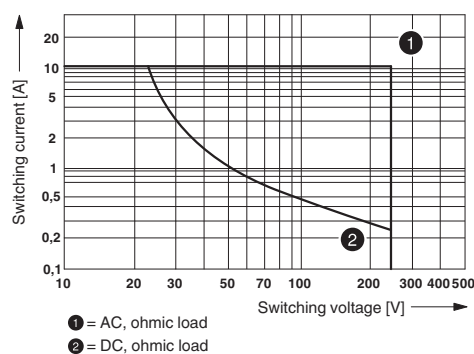


Operating voltage range

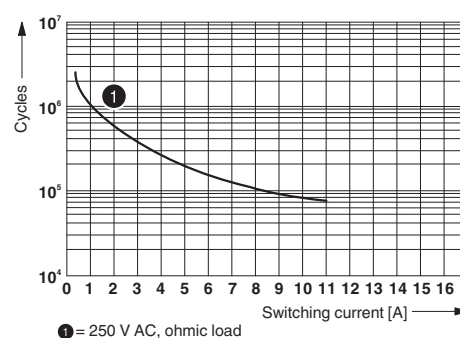


## Relay Module - RIF-1-RPT-LV-230AC/1X21MS - 2905290

Diagram



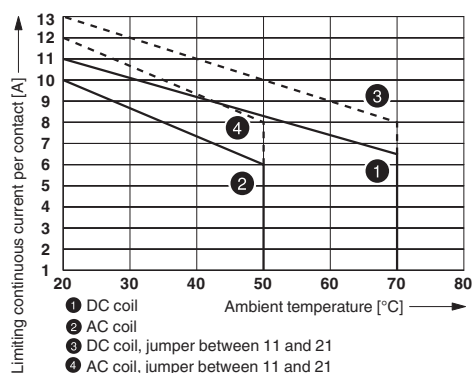
Diagram



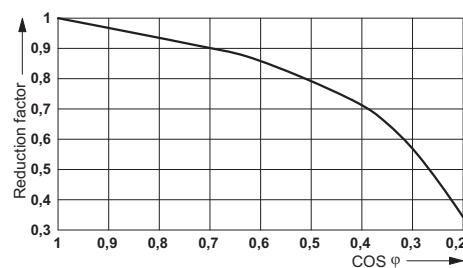
Electrical service life

Interrupting rating

Diagram



Diagram



Service life reduction factor

Contact derating

### 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-230AC/21HC/MS - 2987914



Plug-in miniature relay, with power contact, 1 PDT, test button, mechanical switch position indicator, status LED, input voltage 230 V AC

## Relay Module - RIF-1-RPT-LV-230AC/1X21MS - 2905290

### Articles in set

Plug-in module - RIF-V-120-230 UC - 2900948



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

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Retaining bracket - RIF-RH-1-H - 2904468



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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