

# Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

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Pre-assembled relay module with Push-in connection, consisting of: relay base, safety relay with force-guided contacts in accordance with DIN EN 50205, plug-in display/interference suppression module, and retaining bracket, contact type: 2 changeover contacts, input voltage: 24 V DC

## Product Description

The force-guided coupling relay module is approved for industrial control equipment in accordance with UL 508 (cULus listed). The requirements for Type A in accordance with DIN EN 50205 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.



## Key Commercial Data

Packing unit	10 STK
GTIN	 4 055626 289151
GTIN	4055626289151
Weight per Piece (excluding packing)	71.520 g
Custom tariff number	85364110
Country of origin	Czech Republic

## 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	70 mm

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

### Coil side

Nominal input voltage $U_N$	24 V DC
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## Technical data

### Coil side

Input voltage range in reference to $U_N$	see diagram
Typical input current at $U_N$	30 mA
Typical response time	10 ms
Typical release time	10 ms
Coil voltage	24 V DC
Protective circuit	Damping diode
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.72 W

### Contact side

Contact type	2 changeover contacts, forcibly actuated
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	15 V AC/DC
Min. switching current	10 mA
Maximum inrush current	6 A
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	144 W (at 24 V DC)
	288 W (at 48 V DC)
	88 W (at 110 V DC)
	110 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	3 A (at 230 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>
	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)
	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (stranded)

### 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>

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## Technical data

### Connection data output side

Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)
	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (stranded)

### General

Operating mode	100% operating factor
Degree of protection	IP20 (Relay base)
	RT II (Relay)
Mechanical service life	Approx. 10 <sup>7</sup> cycles
UL, USA/Canada	cULus listed UL 508
UL certificate	NRNT.E172140
Mounting position	any
Assembly instructions	In rows with zero spacing
B <sub>10d</sub>	600000 Cycles (AC1; 250 V / 6 A; 1 NO)
	900000 Cycles (AC1; 250 V / 3 A; 1 NO)
	1800000 Cycles (AC1; 250 V / 1,5 A; 1 NO)
	180000 Cycles (AC15; 250 V / 3 A; 1 NO)
	560000 Cycles (AC15; 250 V / 2 A; 1 NO)
	4600000 Cycles (AC15; 250 V / 0,75 A; 1 NO)
	360000 Cycles (DC13; 24 V / 3 A; 1 NO)
	740000 Cycles (DC13; 24 V / 1,5 A; 1 NO)
	4200000 Cycles (DC13; 24 V / 0,75 A; 1 NO)

### Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	DIN EN 50178/VDE 0160
	EN 50205
Rated insulation voltage	250 V
Rated surge voltage	6 kV
Insulation	safe isolation
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V2
Conformance	CE-compliant
UL, USA/Canada	cULus listed UL 508

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
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# Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

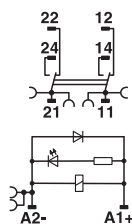
## Technical data

### Environmental Product Compliance

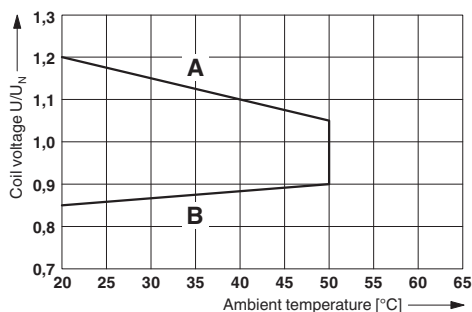
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Circuit diagram

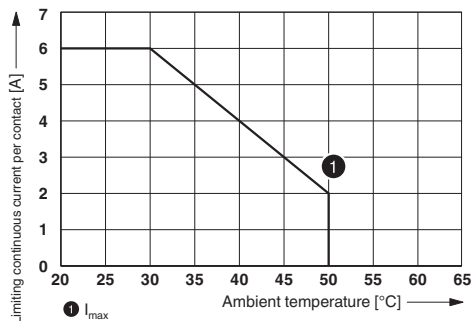


Diagram



### Operating voltage range

Diagram



### Contact derating

## Articles in set

Safety relays - REL-SR- 24DC/2X21/FG - 2908777



Safety relay with forcibly guided contacts in acc. with DIN EN 50205, contact type 2 PDTs. The requirements for type A in accordance with EN 50205 are fulfilled when the wiring topology is 1 NO / 1 NC.

# Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

## Articles in set

Plug-in module - RIF-LDP-12-24 DC - 2900939



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 ... 24 V DC  $\pm 20\%$

Relay retaining bracket - RIF-RHM-1-H - 2905985



Relay retaining bracket, wire model, suitable for RIF-1 relay base, for 25 mm high octal miniature power relays

## Classifications

### eCl@ss

eCl@ss 5.0	27371601
eCl@ss 5.1	27371601
eCl@ss 6.0	27371601
eCl@ss 7.0	27371601
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

### ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437

### UNSPSC

UNSPSC 13.2	39122334
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## Approvals

### Approvals

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UL Listed / cUL Listed / EAC / DNV GL / cULus Listed

# Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

## Approvals

Ex Approvals

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### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 172140
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EAC			RU C- DE.A*30.B.01082
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DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAA000018V
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cULus Listed			
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## Accessories

### Accessories

#### Controller board

System connection - RIF-1-V8/PT/FLK14/OUT - 2905195



V8 adapter for 8 x RIF-1 relay base; Controller: PLC system cabling of output cards; connection 1: Plug connection; connection 2: 1x IDC/FLK pin strip (14-position); number of channels: 8; control logic: plusschaltend

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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

## Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

### Accessories

#### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



## Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

### Accessories

Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

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



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: blue

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



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: gray

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## Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

### Accessories

Plug-in bridge - FBS 2-8 - 3030284



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: red

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



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, 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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### Marker carriers

Marker carriers - STP 5-2 - 0800967



Double marker carrier, snaps onto the double-level spring-cage terminal block STTB 2,5, STTB 4, PTTB 2,5, PTTB 4 can be marked with UC-TM 5, ZB 5 or UC-TMF 5, ZBF 5

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### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm

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## Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

### Accessories

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm

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### Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: silver

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### Spare parts

Safety relays - REL-SR- 24DC/2X21/FG - 2908777



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Relay retaining bracket - RIF-RHM-1-H - 2905985



Relay retaining bracket, wire model, suitable for RIF-1 relay base, for 25 mm high octal miniature power relays