

Relay Module - RIF-1-RSC-LDP-24DC/2X21/FG - 2909848

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Pre-assembled relay module with screw connection, consisting of: relay base, safety relay with force-guided contacts in accordance with DIN EN 50205, pluggable 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 pc
GTIN	 4 055626 394596
GTIN	4055626394596

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	89 mm
Depth	75 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
Input voltage range in reference to U_N	see diagram
Typical input current at U_N	30 mA
Typical response time	10 ms

Relay Module - RIF-1-RSC-LDP-24DC/2X21/FG - 2909848

Technical data

Coil side

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	2 A (at 24 V, DC13)
	3 A (at 230 V, AC15)

Connection data 1

Connection name	Coil side
Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.5 mm ² ... 4 mm ²
Conductor cross-section solid (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 4 mm ²
	0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ²
	0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 10 (solid)
	20 ... 12 (flexible)
Torque	0.5 Nm ... 0.6 Nm

Connection data 2

Connection name	Contact side
Connection method	Screw connection
Stripping length	8 mm
Conductor cross section solid	0.5 mm ² ... 4 mm ²

Relay Module - RIF-1-RSC-LDP-24DC/2X21/FG - 2909848

Technical data

Connection data 2

Conductor cross-section solid (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 4 mm ²
	0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm ² ... 2.5 mm ²
	0.5 mm ² ... 1.5 mm ² (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 10 (solid)
	20 ... 12 (flexible)
Torque	0.5 Nm ... 0.6 Nm

General

Operating mode	100% operating factor
Degree of protection	IP20 (Relay base)
	RT II (Relay)
Mechanical service life	approx. 10 ⁷ cycles
Mounting position	any
Assembly instructions	In rows with zero spacing
B _{10d}	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

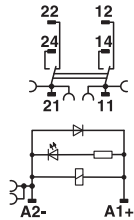
Environmental Product Compliance

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

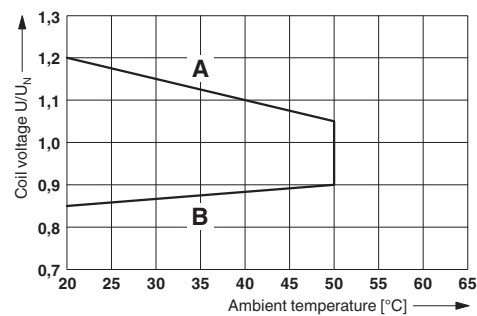
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Drawings

Circuit diagram

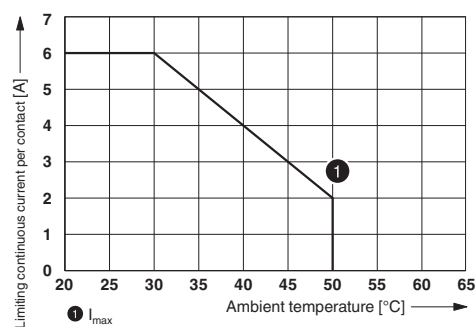


Diagram



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.

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 Module - RIF-1-RSC-LDP-24DC/2X21/FG - 2909848

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 172140

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 172140

EAC



RU C-
DE.A*30.B.01082

cULus Listed



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