Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

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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: 24 V DC

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 732277
GTIN	4046356732277
Weight per Piece (excluding packing)	67.200 g
Custom tariff number	85364110
Country of origin	China

Technical data

Note

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

Dimensions

Width	16 mm
Height	93 mm
Depth	75 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Coil side

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Technical data

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	18 mA
Typical response time	8 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	0.43 W

Contact side

Contact type	2 PDT
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Min. switching current	10 mA (At 5 V)
Maximum inrush current	25 A (20 ms, N/O contact)
Limiting continuous current	8 A (see diagram)
Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
	96 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 input side

Connection name	Coil side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
	0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve)

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Technical data

Connection data input side

	0.14 mm² ... 1 mm² (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (flexible)

Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.14 mm² ... 1.5 mm²
	0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve)
	0.14 mm² ... 1 mm² (Ferrule with plastic sleeve, two conductors on double terminal block)
Conductor cross section AWG	26 ... 16 (solid)
	26 ... 16 (flexible)

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_{rms} (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV_{rms} (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	IP20 (Relay base)
	RT III (Relay)
Mechanical service life	approx. 3x 10^7 cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Standards/regulations	DIN EN 50178
Rated surge voltage	6 kV
Insulation	Safe isolation, basic insulation, and 4 kV rated surge voltage between all changeover contacts.
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V2

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50

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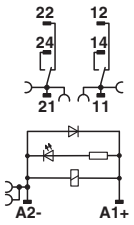
Technical data

Environmental Product Compliance

	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

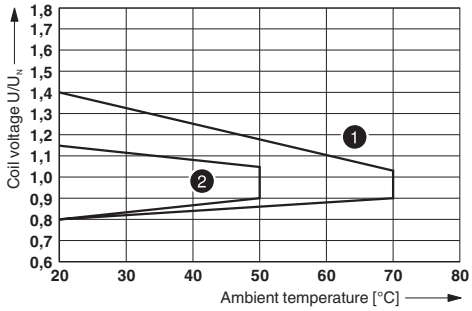
Drawings

Circuit diagram



DC coils

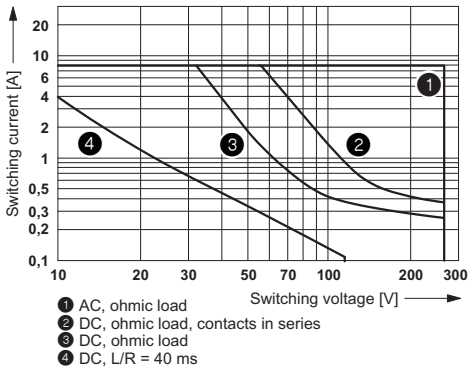
Diagram



1 DC coils
2 AC coils

Operating voltage range

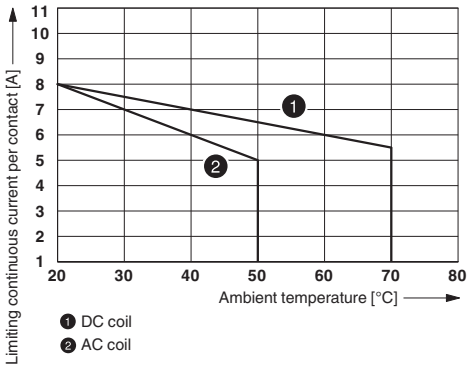
Diagram



1 AC, ohmic load
2 DC, ohmic load, contacts in series
3 DC, ohmic load
4 DC, L/R = 40 ms

Interrupting rating

Diagram



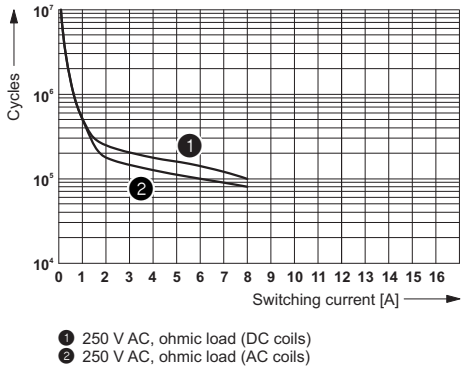
1 DC coil
2 AC coil

Contact derating

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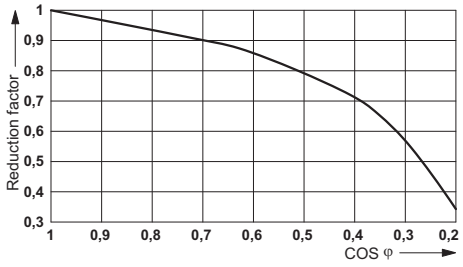
Diagram



1 250 V AC, ohmic load (DC coils)
2 250 V AC, ohmic load (AC coils)

Electrical service life

Diagram



Service life reduction factor

Articles in set

Relay base - 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- 24DC/21-21 - 2961192



Plug-in miniature power relay, with power contact, 2 PDTs, input voltage 24 V DC

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 ±20 %

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Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

Articles in set

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 5.0	27371601
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
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 6.01	30211917
UNSPSC 7.0901	39121516
UNSPSC 11	39121516
UNSPSC 12.01	39121516
UNSPSC 13.2	39122334

Approvals

Approvals

Approvals

EAC / LR / EAC / PRS / DNV GL

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Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

Approvals

Ex Approvals

Approval details

EAC		EAC-Zulassung
LR	http://www.lr.org/en	15/20011
EAC		RU C-DE.A*30.B.01082
PRS	http://www.prs.pl/	TE/2108/880590/16
DNV GL	http://exchange.dnv.com/tari/	TAA000018V

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

Insulating sleeve

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Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

Accessories

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



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Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

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 - 2903334

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

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

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



Bridge for potential distribution

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

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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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

Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm

Marker for terminal blocks - UC-TMF 16 - 0819262



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID, BLUEMARK ID COLOR, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm

Test plug terminal block

Test plugs - MPS-MT - 0201744



, rated voltage (III/2): , nominal current (Ex): , nominal voltage (Ex): , number of positions: 1, pitch: 5 mm, : , mounting: ,

Spare parts

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Relay Module - RIF-1-RPT-LDP-24DC/2X21 - 2903334

Accessories

Relay base - RIF-1-BPT/2X21 - 2900931



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Retaining bracket - RIF-RH-1 - 2900953



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