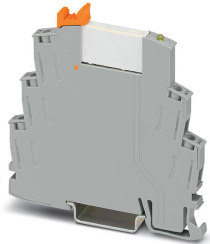


Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Pre-assembled relay module with screw connection, consisting of: relay base with ejector and multi-layer gold contact relay. Contact type: 1 changeover contact. Input voltage: 12 V DC

Product Description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508.

The relevant approvals can be called up at the individual components in question.



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	10 pc
GTIN	 4 046356 732031
GTIN	4046356732031
Weight per Piece (excluding packing)	32.000 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
-------------------------	---

Dimensions

Width	6.2 mm
Height	84 mm
Depth	82 mm

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20 (Relay base)
	RT III (Relay)

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range in reference to U_N	see diagram
Typical input current at U_N	16 mA
Typical response time	5 ms
Typical release time	8 ms
Coil voltage	12 V DC
Protective circuit	Damping diode
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.19 W

Contact side

Contact type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Min. switching current	1 mA (at 12 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Switching capacity	1 A (24 V (DC13))
	3 A (230 V (AC 15))

Contact side (with destroyed gold layer)

Contact material	AgSnO
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Technical data

Contact side (with destroyed gold layer)

	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

General

Test voltage	4 kV _{rms} (50 Hz, 1 min., winding/contact)
Operating mode	100% operating factor
Flammability rating according to UL 94	V2 (Housing)
Mechanical service life	approx. 2×10^7 cycles
Service life electrical	see diagram
Mounting position	any
Assembly instructions	in rows with zero spacing

Connection data

Connection name	Coil side
Connection method	Screw connection
Stripping length	7 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 ... 1.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
	0.5 mm ² ... 2.5 mm ² (Ferrules without plastic sleeve)
	0.5 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm ² ... 1.5 mm ²
	0.5 mm ² ... 1 mm ² (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 12 (solid)
	20 ... 14 (flexible)
Torque	0.5 Nm ... 0.6 Nm

Connection data 2

Connection name	Contact side
Connection method	Screw connection
Stripping length	7 mm

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Technical data

Connection data 2

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 ... 1.5 mm ²
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
	0.5 mm ² ... 2.5 mm ² (Ferrules without plastic sleeve)
	0.5 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm ² ... 1.5 mm ²
	0.5 mm ² ... 1 mm ² (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 12 (solid)
	20 ... 14 (flexible)
Torque	0.5 Nm ... 0.6 Nm

Standards and Regulations

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

Conformance/approvals

Designation	Corrosive gas test
Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

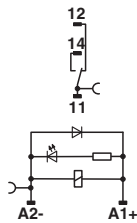
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

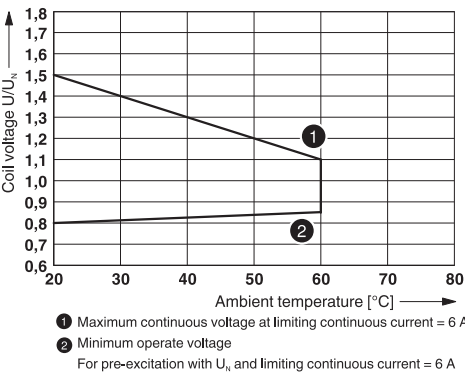
Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Circuit diagram



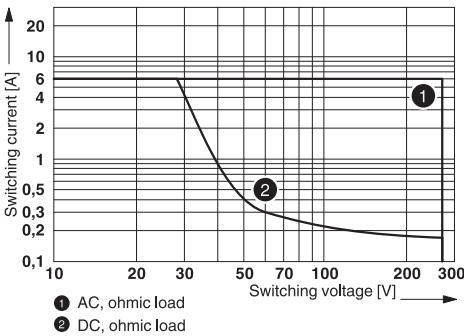
DC coils

Diagram



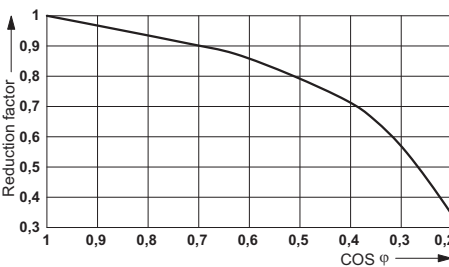
Operating voltage range

Diagram



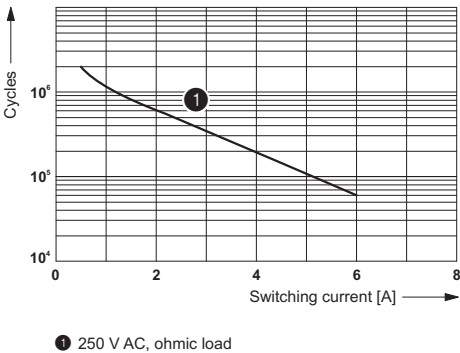
Interrupting rating

Diagram



Service life reduction factor with various cos phi

Diagram



Electrical service life

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Articles in set

Single relay - REL-MR- 12DC/21AU - 2961163



Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

Relay base - RIF-0-BSC/21 - 2900957



RIF-0... relay base, for miniature power relay with 1 changeover contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

Classifications

eCl@ss

eCl@ss 10.0.1	27371601
eCl@ss 11.0	27371601
eCl@ss 4.0	27371100
eCl@ss 4.1	27371100
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
eCl@ss 7.0	27371601
eCl@ss 9.0	27371601

ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 6.0	EC001437
ETIM 7.0	EC001437

UNSPSC

UNSPSC 6.01	30211917
UNSPSC 7.0901	39121516
UNSPSC 11	39121516

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Classifications

UNSPSC

UNSPSC 12.01	39121516
UNSPSC 13.2	39122334
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334
UNSPSC 21.0	39122334

Approvals

Approvals

Approvals

DNV GL / EAC

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAA000018V
--------	---	---	------------

EAC		TR_TS_D_00573_c
-----	---	-----------------

Accessories

Accessories

DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

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

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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



Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



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, color: red

Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, pitch: 6.2 mm, color: red

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, pitch: 6.2 mm, color: red

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

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



Plug-in bridge, pitch: 6.2 mm, color: blue

Plug-in bridge - FBS 3-6 BU - 3036945



Plug-in bridge, pitch: 6.2 mm, color: blue

Plug-in bridge - FBS 4-6 BU - 3036958



Plug-in bridge, pitch: 6.2 mm, color: blue

Plug-in bridge - FBS 5-6 BU - 3036961



Plug-in bridge, pitch: 6.2 mm, color: blue

Plug-in bridge - FBS 10-6 BU - 3032198



Plug-in bridge, pitch: 6.2 mm, color: blue

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Plug-in bridge - FBS 20-6 BU - 3032208



Plug-in bridge, pitch: 6.2 mm, color: blue

Plug-in bridge - FBS 50-6 BU - 3032211



Plug-in bridge, pitch: 6.2 mm, color: blue

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



Plug-in bridge, pitch: 6.2 mm, color: gray

Plug-in bridge - FBS 3-6 GY - 3032240



Plug-in bridge, pitch: 6.2 mm, color: gray

Plug-in bridge - FBS 4-6 GY - 3032279



Plug-in bridge, pitch: 6.2 mm, color: gray

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Plug-in bridge - FBS 5-6 GY - 3032266



Plug-in bridge, pitch: 6.2 mm, color: gray

Plug-in bridge - FBS 10-6 GY - 3032253



Plug-in bridge, pitch: 6.2 mm, color: gray

Labeled terminal marker

Zack marker strip - ZB 6 CUS - 0824992



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 6,QR:FORTL.ZAHLEN - 1051029



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Zack marker strip - ZB 6,LGS:GLEICHE ZAHLEN - 1051032



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - ZB 6,LGS:L1-N,PE - 1051414



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - ZB 6,LGS:U-N - 1051430



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: U, V, W, N, GND, U, V, W, N, GND, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 6 CUS - 0824589



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UCT-TM 6 CUS - 0829602



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

Terminal marking

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 6 - 0818085



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

Marker for terminal blocks - UCT-TM 6 - 0828736



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

Spare parts

Single relay - REL-MR- 12DC/21AU - 2961163



Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

Relay Module - RIF-0-RSC-12DC/21AU - 2903373

Accessories

Relay base - RIF-0-BSC/21 - 2900957



RIF-0... relay base, for miniature power relay with 1 changeover contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5