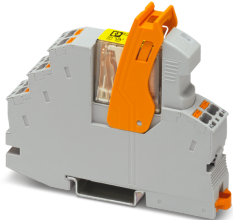
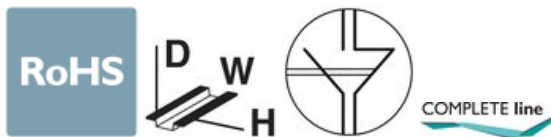


Relay Module - RIF-1-RPT-LDP-24DC/2X21/FG - 2908215

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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 61810-3, plug-in display/interference suppression module, and retaining bracket, contact type: 2 changeover contacts, input voltage: 24 V DC



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 055626 289151 |
| GTIN | 4055626289151 |
| Weight per Piece (excluding packing) | 72.000 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 | 16 mm |
| Height | 96 mm |
| Depth | 70 mm |

Ambient conditions

| | |
|---|-------------------|
| Ambient temperature (operation) | -25 °C ... 50 °C |
| Ambient temperature (storage/transport) | -25 °C ... 70 °C |
| Degree of protection | IP20 (Relay base) |

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

Technical data

Ambient conditions

| | |
|--|--------------|
| | RT I (Relay) |
|--|--------------|

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 |
| 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) |

General

| | |
|--|---|
| Operating mode | 100% operating factor |
| Flammability rating according to UL 94 | V2 (Housing) |
| 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) |

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

Technical data

General

| | |
|--|---|
| | 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) |

Connection data

| | |
|----------------------------------|---|
| Connection name | Coil side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 1.5 mm ² |
| | 0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve) |
| | 0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross section AWG | 26 ... 16 (solid) |
| | 26 ... 16 (flexible) |

Connection data 2

| | |
|----------------------------------|---|
| Connection name | Contact side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 1.5 mm ² |
| | 0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve) |
| | 0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross section AWG | 26 ... 16 (solid) |
| | 26 ... 16 (flexible) |

Standards and Regulations

| | |
|--------------------------|--|
| Designation | Air clearances and creepage distances between the power circuits |
| Standards/regulations | DIN EN 50178/VDE 0160 |
| | DIN EN 61810-3 |
| Rated insulation voltage | 250 V |
| Rated surge voltage | 6 kV |
| Insulation | safe isolation |
| Pollution degree | 2 |
| Overvoltage category | III |

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

Technical data

Conformance/approvals

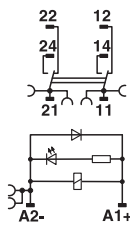
| | |
|----------------|----------------------------|
| Designation | CE |
| Certificate | CE-compliant |
| Designation | UL, USA / Canada |
| Identification | cULus Listed UL 508 |
| Certificate | NRNT.E172140 |
| Designation | Corrosive gas test |
| Identification | ISA-S71.04. G3 Harsh Group |
| | EN 60068-2-60 |

Environmental Product Compliance

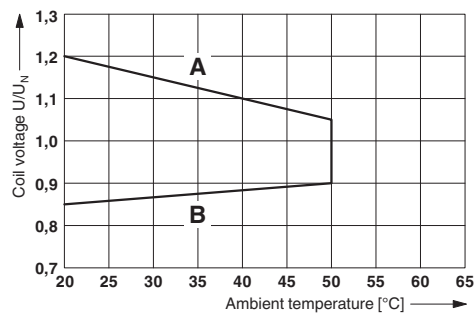
| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

Circuit diagram



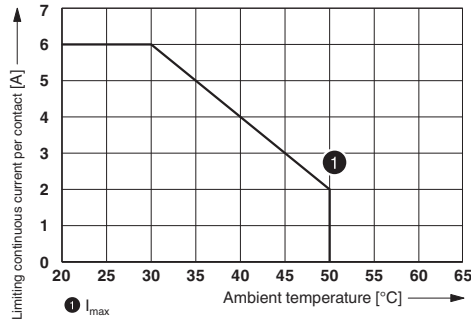
Diagram



Operating voltage range

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

Diagram



Contact derating

Articles in set

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



Safety relay with force-guided contacts in accordance with DIN EN 61810-3, contact type: 2 changeover contacts. The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

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 $\pm 30\%$

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 10.0.1 | 27371601 |
|---------------|----------|

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

Classifications

eCl@ss

| | |
|-------------|----------|
| eCl@ss 11.0 | 27371601 |
| 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 13.2 | 39122334 |
| UNSPSC 18.0 | 39122334 |
| UNSPSC 19.0 | 39122334 |
| UNSPSC 20.0 | 39122334 |
| UNSPSC 21.0 | 39122334 |

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

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

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

Approvals

| | | | |
|--------------|--|---|-------------------------|
| cUL Listed | | http://database.ul.com/cgi-bin/XYVV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| EAC | | | TR_TS_D_00573_c |
| EAC | | | RU*C- DE.*08.B.00010 |
| DNV GL | | https://approvalfinder.dnvgl.com/ | TAA000018V |
| cULus Listed | | | |

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: Push-in connection 4x, connection 2: IDC/FLK pin strip 1x 14-position, connection 3: Plug-in connection, number of channels: 8, control logic: plusschaltend

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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-1-RPT-LDP-24DC/2X21/FG - 2908215

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 2-6 BU - 3036932



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

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

Accessories

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



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

Plug-in bridge - FBS 2-8 - 3030284



Plug-in bridge, pitch: 8.2 mm, color: red

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



Plug-in bridge, pitch: 8.2 mm, color: blue

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



Bridge for potential distribution

Labeled terminal marker

Zack marker strip - ZB 5 CUS - 0824962



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

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

Accessories

Zack marker strip - ZB 5,LGS:FORTL.ZAHLEN - 1050017



Zack marker strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 5,QR:FORTL.ZAHLEN - 1050020



Zack marker strip, white, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm

Zack marker strip - ZB 5,LGS:GLEICHE ZAHLEN - 1050033



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: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Zack marker strip - ZB 5,LGS:L1-N,PE - 1050415



Zack marker strip, Strip, white, labeled, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 5 CUS - 0824581



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: 5.2 mm, lettering field size: 10.5 x 4.6 mm, Number of individual labels: 96

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

Accessories

Marker for terminal blocks - UCT-TM 5 CUS - 0829595



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: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Zack marker strip - ZB 15 CUS - 0824945



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

Zack marker strip - ZB 15,LGS:L1-N,PE - 0811998



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

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

Marker for terminal blocks - UC-TM 16 - 0819217



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: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

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

Accessories

Marker for terminal blocks - UC-TMF 16 - 0819262



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 flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm, Number of individual labels: 32

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



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: 5.2 mm, lettering field size: 5.1 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 5 - 0818108



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: 5.2 mm, lettering field size: 10.5 x 4.6 mm, Number of individual labels: 96

Marker for terminal blocks - UCT-TM 5 - 0828734



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: 5.2 mm, lettering field size: 4.6 x 10.5 mm, Number of individual labels: 72

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



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: 15.2 mm, lettering field size: 10.5 x 15.1 mm, Number of individual labels: 5

Test plug terminal block

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

Accessories

Test plugs - MPS-MT - 0201744



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

Spare parts

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



Safety relay with force-guided contacts in accordance with DIN EN 61810-3, contact type: 2 changeover contacts. The requirements for type A in accordance with DIN EN 61810-3 are satisfied if the circuit is designed as 1 N/O contact / 1 N/C contact.

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 30%

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