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# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

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PLC-INTERFACE, consisting of a relay base and pluggable power contact relay with manual operation, integrated status LED, Push-in connection, 1 PDT, Input voltage: 24 V AC/DC

**RoHS**

## Key Commercial Data

| Packing unit | 10 STK |
|---|---|
| GTIN | 4 055626 486826 |
| GTIN | 4055626486826 |
| Weight per Piece (excluding packing) | 67.000 g |
| Custom tariff number | 85364190 |
| Note | Made to Order (non-returnable) |

## Technical data

### Note

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

### Dimensions

| Width | 14 mm |
|---|---|
| Height | 80 mm |
| Depth | 104 mm |

### Ambient conditions

| Ambient temperature (operation) | -20 °C ... 60 °C |
|---|---|
| Ambient temperature (storage/transport) | -20 °C ... 85 °C |

### Coil side

| Nominal input voltage $U_N$ | 24 V AC/DC |
|---|---|
| Typical input current at $U_N$ | 18 mA |
| Typical response time | 3 ms ... 15 ms |

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# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Technical data

### Coil side

| | |
|---|---|
| Typical release time range | 3 ms ... 15 ms |
| Coil voltage | 24 V DC |
| Protective circuit | Bridge rectifier Bridge rectifier |
| Operating voltage display | Yellow LED |

### Contact side

| | |
|---|---|
| Contact type | 1 PDT |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...) |
| Minimum switching voltage | 12 V (10 mA) |
| Min. switching current | 10 mA (at 12 V) |
| Maximum inrush current | 24 A (20 ms) |
| Limiting continuous current | 10 A |
| Interrupting rating (ohmic load) max. | 264 W (24 V DC) |
| | 62 W (48 V DC) |
| | 48 W (60 V DC) |
| | 52 W (110 V DC) |
| | 66 W (220 V DC) |
| | 2750 VA (250 V AC) |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (24 V, DC13) |
| | 3 A (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 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 2.5 mm² |
| Conductor cross section AWG | 26 ... 14 |

### Connection data output side

| | |
|---|---|
| Connection name | Contact side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 2.5 mm² |
| Conductor cross section AWG | 26 ... 14 |

### General

| | |
|---|---|
| Test voltage relay winding/relay contact | 4 kV$_{rms}$ (50 Hz, 1 min.) |

# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Technical data

### General

| Operating mode | 100% operating factor |
|---|---|
| Degree of protection | RT II (Relay) |
| | IP20 (Relay base) |
| Mechanical service life | $5 \times 10^6$ cycles |
| UL, USA | UL 508 |
| | UL 508 Recognized |
| UL, USA/Canada | cUL 508 |
| | cUL 508 Recognized |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

### Standards and Regulations

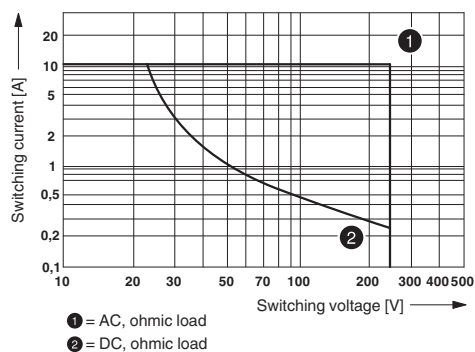| Designation | Standards/regulations |
|---|---|
| Standards/regulations | EN 50178 |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 6 kV |
| Insulation | Safe isolation, reinforced insulation |
| Degree of pollution | 2 |
| Overvoltage category | III |
| Flammability rating according to UL 94 | V0 |
| UL, USA | UL 508 |
| | UL 508 Recognized |
| UL, USA/Canada | cUL 508 |
| | cUL 508 Recognized |

### Environmental Product Compliance

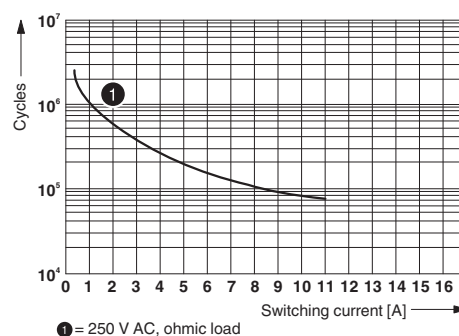| China RoHS | Environmentally Friendly Use Period = 50 |
|---|---|
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

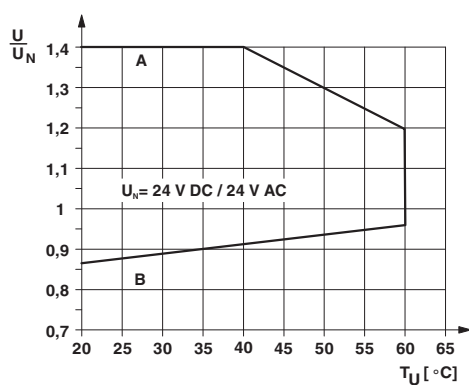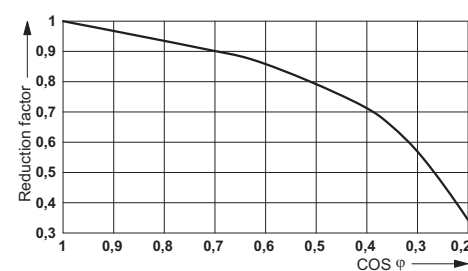# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

### Diagram



● = AC, ohmic load
❷ = DC, ohmic load

Interrupting rating

### Diagram



● = 250 V AC, ohmic load

Electrical service life

### Diagram



$U_N$= 24 V DC / 24 V AC

### Diagram



Service life reduction factor

Curve A
Maximum permissible continuous voltage $U_{max}$ with limiting continuous
current on the contact side (see relevant technical data)
Curve B
Minimum permissible operate voltage $U_{op}$ after pre-excitation (see
relevant technical data)

## Articles in set

Relay base - PLC-BPT- 24UC/21HC/H - 1012310



14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 1 PDT, Input
voltage 24 V AC/DC

# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Articles in set

Single relay - REL-MR- 24DC/21HC/MS - 2987888

Plug-in miniature relay, with power contact, 1 PDT, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2-, input voltage 24 V DC

## 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 6.01 | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11 | 39121515 |
| UNSPSC 12.01 | 39121515 |
| UNSPSC 13.2 | 39122334 |

## Approvals

### Approvals

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UL Recognized / UL Listed / cUL Recognized / cUL Listed / EAC / cULus Recognized

### Ex Approvals

### Approval details

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## Approvals

| | | | |
|---|---|---|---|
| UL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |

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

| | | | |
|---|---|---|---|
| cUL Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |

| | | | |
|---|---|---|---|
| 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 Recognized | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm |

## Accessories

Accessories

Bridge

Continuous plug-in bridge - FBST 500-PLC RD - 2966786

Continuous plug-in bridge, length: 500 mm, color: red

Continuous plug-in bridge - FBST 500-PLC BU - 2966692

Continuous plug-in bridge, length: 500 mm, color: blue

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# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Accessories

Continuous plug-in bridge - FBST 500-PLC GY - 2966838

Continuous plug-in bridge, length: 500 mm, color: gray

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Single plug-in bridge - FBST 6-PLC RD - 2966236

Single plug-in bridge, length: 6 mm, number of positions: 2, color: red

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Single plug-in bridge - FBST 6-PLC BU - 2966812

Single plug-in bridge, length: 6 mm, number of positions: 2, color: blue

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Single plug-in bridge - FBST 6-PLC GY - 2966825

Single plug-in bridge, length: 6 mm, number of positions: 2, color: gray

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Single plug-in bridge - FBST 8-PLC GY - 2967688

Single plug-in bridge, length: 8 mm, number of positions: 2, color: gray

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# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Accessories

Single plug-in bridge - FBST 14-PLC BK - 2967691

Single plug-in bridge, length: 14 mm, number of positions: 2, color: black

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DIN rail

DIN rail, unperforated - NS 35/ 7,5 V2A UNPERF 2000MM - 0801377

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Stainless steel V2A, uncoated, length: 2000 mm, color: silver

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

DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Copper, uncoated, length: 2000 mm, color: copper-colored

# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Accessories

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

DIN rail, unperforated, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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

DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Aluminum, uncoated, length: 2000 mm, color: silver

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

DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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

DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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Labeled terminal marker

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014

Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm

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Partition plate

# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Accessories

Separating plate - PLC-ATP BK - 2966841

Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation

## Power module

Power terminal block - PLC-ESK GY - 2966508

Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

## Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517

Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

## Terminal marking

Zack marker strip - ZB10/WH-100:UNBEDRUCKT - 5060883

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: 10.2 mm, lettering field size: 10.15 x 10.5 mm

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001

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: 10.2 mm, lettering field size: 10.5 x 10.15 mm

## Spare parts

# Relay Module - PLC-RPT- 24UC/21HC/MS - 2910531

## Accessories

Relay base - PLC-BPT- 24UC/21HC/H - 1012310

14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 1 PDT, Input voltage 24 V AC/DC

Single relay - REL-MR- 24DC/21HC/MS - 2987888

Plug-in miniature relay, with power contact, 1 PDT, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2-, input voltage 24 V DC