

## Relay Module - PLC-RPT-120UC/21 - 2900304

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>)



PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in technology and plug-in miniature relay with power contact, for mounting on NS 35/7,5 DIN rails, 1 PDT, input voltage: 120 V AC/110 V DC

### Product Features

- Slim design
- Efficient connection to system cabling using V8 adapter
- Safe isolation according to DIN EN 50178 between coil and contact
- RT III sealed relay
- Integrated input circuit and interference suppression circuit
- Functional plug-in bridges



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Weight per Piece (excluding packing) | 36.0 g   |
| Custom tariff number                 | 85364900 |
| Country of origin                    | Germany  |

### Technical data

#### Note

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

#### Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 80 mm  |
| Depth  | 94 mm  |

#### Ambient conditions

# Relay Module - PLC-RPT-120UC/21 - 2900304

## Technical data

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -40 °C ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

### Coil side

|   |                                   |
|---|-----------------------------------|
| Nominal input voltage $U_N$             | 120 V AC                          |
|   | 110 V DC                          |
| Typical input current at $U_N$          | 3.5 mA (at $U_N = 120$ V AC)      |
|   | 3 mA (at $U_N = 110$ V DC)        |
| Typical response time                   | 6 ms                              |
| Typical release time                    | 15 ms                             |
| Protective circuit                      | Bridge rectifier Bridge rectifier |
| Operating voltage display               | Yellow LED                        |
| Power dissipation for nominal condition | 0.42 W                            |

### Contact side

|  |   |
|--|---|
| Contact type   | 1 PDT   |
| Contact material                                       | AgSnO   |
| 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                              | 5 V (at 100 mA)   |
| Min. switching current                                 | 10 mA (at 12 V)   |
| Maximum inrush current                                 | 10 A (4 s)  |
| Limiting continuous current                            | 6 A   |
| Interrupting rating (ohmic load) max.                  | 140 W (at 24 V DC)  |
|  | 20 W (at 48 V DC)   |
|  | 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 in acc. with DIN VDE 0660/IEC 60947 | 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)  |

### Connection data input side

|                 |           |
|-----------------|-----------|
| Connection name | Coil side |
|-----------------|-----------|

# Relay Module - PLC-RPT-120UC/21 - 2900304

## Technical data

### Connection data input side

|                                  |  |
|----------------------------------|--|
| Connection method                | Push-in connection                           |
| Stripping length                 | 8 mm   |
| Conductor cross section solid    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| 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 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 26 ... 14                                    |

## General

|  |   |
|--|---|
| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)                       |
| Operating mode                           | 100% operating factor                         |
| Degree of protection                     | RT III (Relay)                                |
| Mechanical service life                  | 2 x 10 <sup>7</sup> cycles                    |
| Flammability rating according to UL 94   | V0  |
| Designation                              | Standards/regulations                         |
| Standards/regulations                    | IEC 60664                                     |
|  | IEC 60664A                                    |
|  | DIN VDE 0110                                  |
|  | DIN EN 50178/DIN VDE 0160 (in relevant parts) |
|  | DIN EN 50178/VDE 0160                         |
|  | IEC 60255/DIN VDE 0435 (in relevant parts)    |
| Degree of pollution                      | 3   |
| Overvoltage category                     | III   |
| Mounting position                        | any   |
| Assembly instructions                    | In rows with zero spacing                     |

## Standards and Regulations

|                                  |   |
|----------------------------------|---|
| Connection in acc. with standard | CUL   |
| Designation                      | Standards/regulations                         |
| Standards/regulations            | IEC 60664                                     |
|                                  | IEC 60664A                                    |
|                                  | DIN VDE 0110                                  |
|                                  | DIN EN 50178/DIN VDE 0160 (in relevant parts) |

# Relay Module - PLC-RPT-120UC/21 - 2900304

## Technical data

### Standards and Regulations

|  |  |
|--|--|
|  | DIN EN 50178/VDE 0160                      |
|  | IEC 60255/DIN VDE 0435 (in relevant parts) |
| Degree of pollution                    | 3  |
| Overvoltage category                   | III  |
| Flammability rating according to UL 94 | V0   |

## Articles in set

### Relay socket - PLC-BPT-120UC/21 - 2900280



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 120 V AC/DC

### Single relay - REL-MR- 60DC/21 - 2961118



Plug-in miniature power relay, with power contact, 1 PDT, input voltage 60 V DC

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371001 |
| eCl@ss 4.1 | 27371001 |
| eCl@ss 5.0 | 27371001 |
| eCl@ss 5.1 | 27371001 |
| eCl@ss 6.0 | 27371001 |
| eCl@ss 7.0 | 27371001 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC000196 |
| ETIM 4.0 | EC000196 |

# Relay Module - PLC-RPT-120UC/21 - 2900304

## Classifications

### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC001437 |
|----------|----------|

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39121515 |

## Approvals

### Approvals

#### Approvals


UL Recognized / UL Listed / cUL Recognized / cUL Listed / GL / EAC / RC FRT / EAC / cULus Recognized / cULus Listed

#### Ex Approvals

#### Approvals submitted

### Approval details

UL Recognized 

UL Listed 

cUL Recognized 

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Approvals


cUL Listed 

GL

EAC

RC FRT

EAC

cULus Recognized 

cULus Listed 

### 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

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

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



Continuous plug-in bridge, Length: 500 mm, Color: gray

---

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



Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: red

---

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



Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: blue

---

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



Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: gray

---

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



Single plug-in bridge, Length: 8 mm, Number of positions: 2, Color: gray

---

### Controller board

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

#### System connection - PLC-V8/FLK14/OUT - 2295554



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Plus switching

---

#### System connection - PLC-V8/FLK14/OUT/M - 2304102



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Minus switching

---

#### System connection - PLC-V8/D15S/OUT - 2296058



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Additional Products"). 15-pin D-SUB male connector, control logic: Positive switching

---

#### System connection - PLC-V8/D15B/OUT - 2296061



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Additional Products"). 15-pin D-SUB female connector, control logic: Positive switching

---

### DIN rail

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



DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

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



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm

---

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



DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

---

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



DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m

---

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



DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

---

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



DIN rail, material: Steel, unperforated, 2.3 mm thick, height 15 mm, width 35 mm, length: 2 m

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

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



DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

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



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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



DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

### Labeled terminal marker

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



Zack marker strip, Strip, white, labeled, can be labeled with: 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: 6.15 x 10.5 mm

### Partition plate

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

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

---

#### 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 - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

---

Zack marker strip - ZB 6/WH-100:UNBEDRUCKT - 5060935



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

---

#### Spare parts

## Relay Module - PLC-RPT-120UC/21 - 2900304

### Accessories

Relay socket - PLC-BPT-120UC/21 - 2900280



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 120 V AC/DC

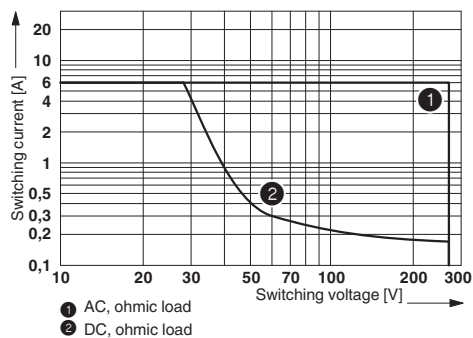
Single relay - REL-MR- 60DC/21 - 2961118



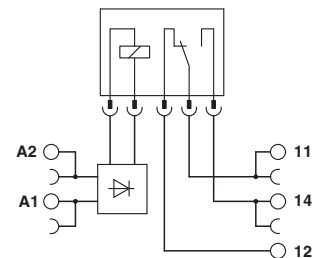
Plug-in miniature power relay, with power contact, 1 PDT, input voltage 60 V DC

### Drawings

Diagram



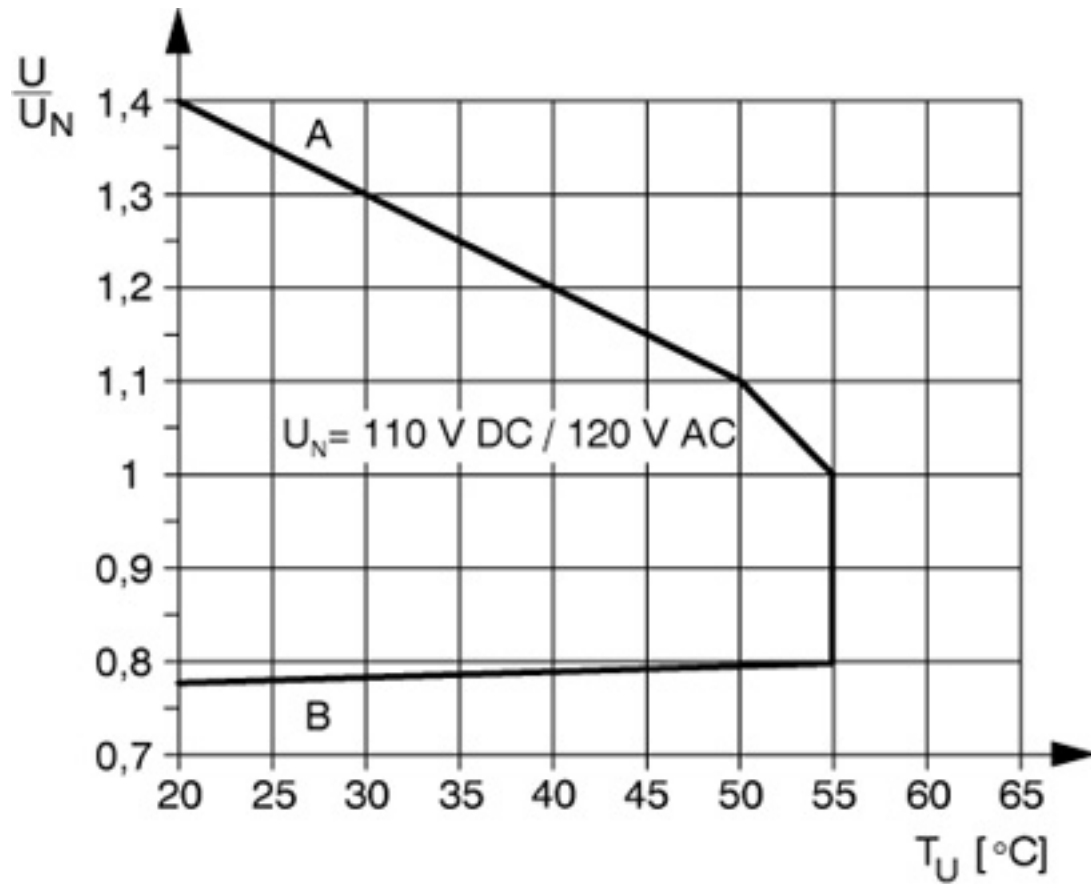
Circuit diagram



Interrupting rating

## Relay Module - PLC-RPT-120UC/21 - 2900304

Diagram



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  $U_{\text{op}}$  after pre-excitation (see relevant technical data)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Phoenix Contact:](#)

[2900304](#)