

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

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PLC-INTERFACE, consisting of a relay base and pluggable multilayer gold contact relay with manual operation, integrated status LED, Push-in connection, 2 PDT, Input voltage: 120 V AC / 110 V DC



## Key Commercial Data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Packing unit                         | 10 pc                          |
| GTIN                                 |                                |
| GTIN                                 | 4055626486796                  |
| Weight per Piece (excluding packing) | 64.000 g                       |
| Custom tariff number                 | 85364900                       |
| Country of origin                    | Germany                        |
| 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 ... 55 °C               |
| Ambient temperature (storage/transport) | -20 °C ... 85 °C               |
| Maximum altitude                        | ≤ 2000 m                       |
| Degree of protection                    | RT II (Relay)                  |
|   | IP20 (Relay base)              |
|   | ≥ IP54 (Installation location) |

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

## Technical data

### Coil side

|                                |                                   |
|--------------------------------|-----------------------------------|
| Nominal input voltage $U_N$    | 120 V AC                          |
|                                | 110 V DC                          |
| Typical input current at $U_N$ | 5 mA                              |
| Typical response time          | 6 ms (110 V DC)                   |
|                                | 3 ms ... 15 ms (120 V AC)         |
| Typical release time           | 10 ms (110 V DC)                  |
| Typical release time range     | 3 ms ... 15 ms (120 V AC)         |
| Protective circuit             | Bridge rectifier Bridge rectifier |
| Operating voltage display      | Yellow LED                        |

### Contact side

|                             |                |
|-----------------------------|----------------|
| Contact type                | 2 PDT          |
| Type of switch contact      | Single contact |
| Contact material            | AgNi + Au      |
| Maximum switching voltage   | 30 V AC        |
|                             | 36 V DC        |
| Minimum switching voltage   | 12 V (1 mA)    |
| Min. switching current      | 1 mA (12 V)    |
| Maximum inrush current      | 50 mA          |
| Limiting continuous current | 50 mA          |

### Contact side (with destroyed gold layer)

|                                       |  |
|---------------------------------------|--|
| Note                                  | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage             | 250 V AC/DC  |
| Minimum switching voltage             | 12 V (10 mA)   |
| Limiting continuous current           | 6 A  |
| Maximum inrush current                | 12 A (20 ms)   |
| Min. switching current                | 10 mA (12 V)   |
| Interrupting rating (ohmic load) max. | 192 W (24 V DC)  |
|                                       | 62 W (48 V DC)   |
|                                       | 42 W (60 V DC)   |
|                                       | 55 W (110 V DC)  |
|                                       | 66 W (220 V DC)  |
|                                       | 2000 VA (250 V AC)   |
| Switching capacity                    | 1 A (24 V, DC13)   |
|                                       | 1.5 A (230 V, AC15)  |

### General

|  |                                       |
|--|---------------------------------------|
| Test voltage relay winding/relay contact | 4 kV <sub>rms</sub> (50 Hz, 1 min.)   |
| Test voltage PDT/PDT                     | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 100% operating factor                 |
| Mechanical service life                  | 5x 10 <sup>6</sup> cycles             |

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

## Technical data

### General

|                       |                           |
|-----------------------|---------------------------|
| Mounting position     | any                       |
| Assembly instructions | In rows with zero spacing |

### Connection data

|                                  |  |
|----------------------------------|--|
| Connection name                  | Coil 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>                 |
|                                  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule) |
|                                  | 2x 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule)  |
| Conductor cross section AWG      | 26 ... 14  |

### Connection data 2

|                                  |  |
|----------------------------------|--|
| 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>                 |
|                                  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule) |
|                                  | 2x 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule)  |
| Conductor cross section AWG      | 26 ... 14  |

### 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 |
| Pollution degree         | 2                                     |
| Overvoltage category     | III                                   |
| UL, USA                  | UL 508                                |
|                          | UL 508 Recognized                     |
| UL, USA/Canada           | cUL 508                               |
|                          | cUL 508 Recognized                    |

### Conformance/approvals

|                |                   |
|----------------|-------------------|
| Designation    | UL, USA           |
| Identification | UL 508            |
|                | UL 508 Recognized |
| Designation    | UL, USA/Canada    |
| Identification | UL 508            |
|                | UL 508 Recognized |

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

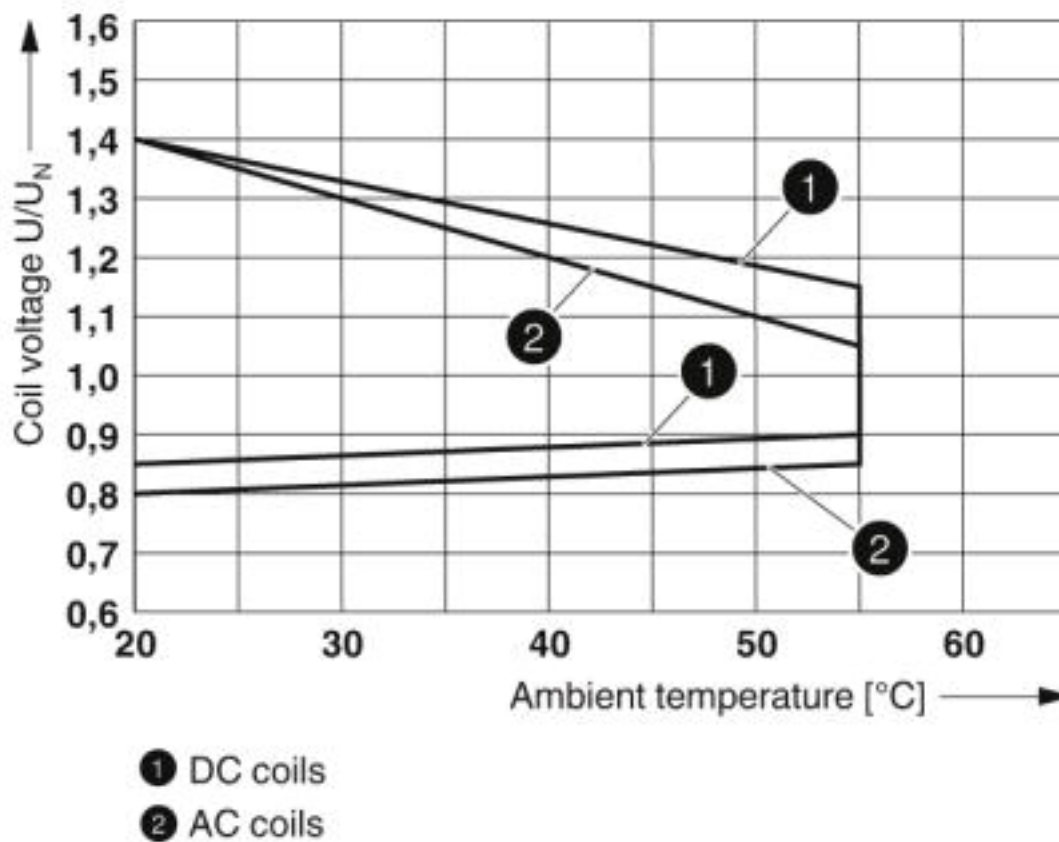
## Technical data

### Environmental Product Compliance

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

## Drawings

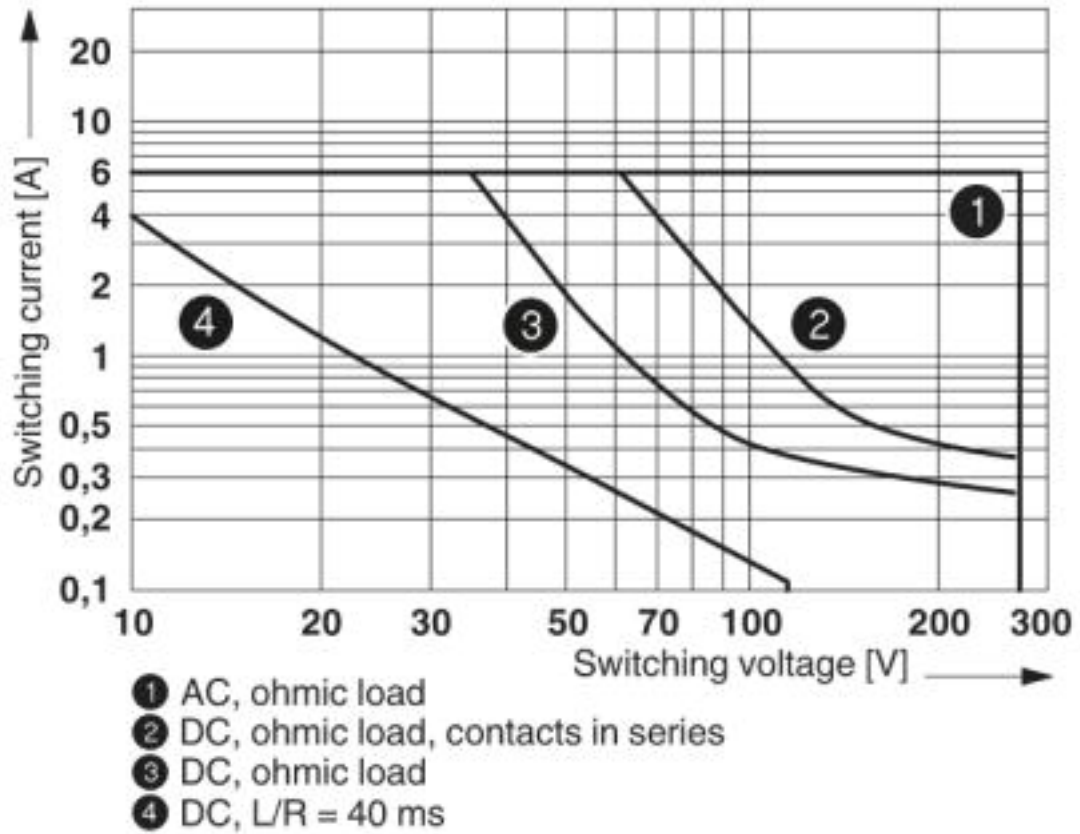
Diagram



Operating voltage range

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

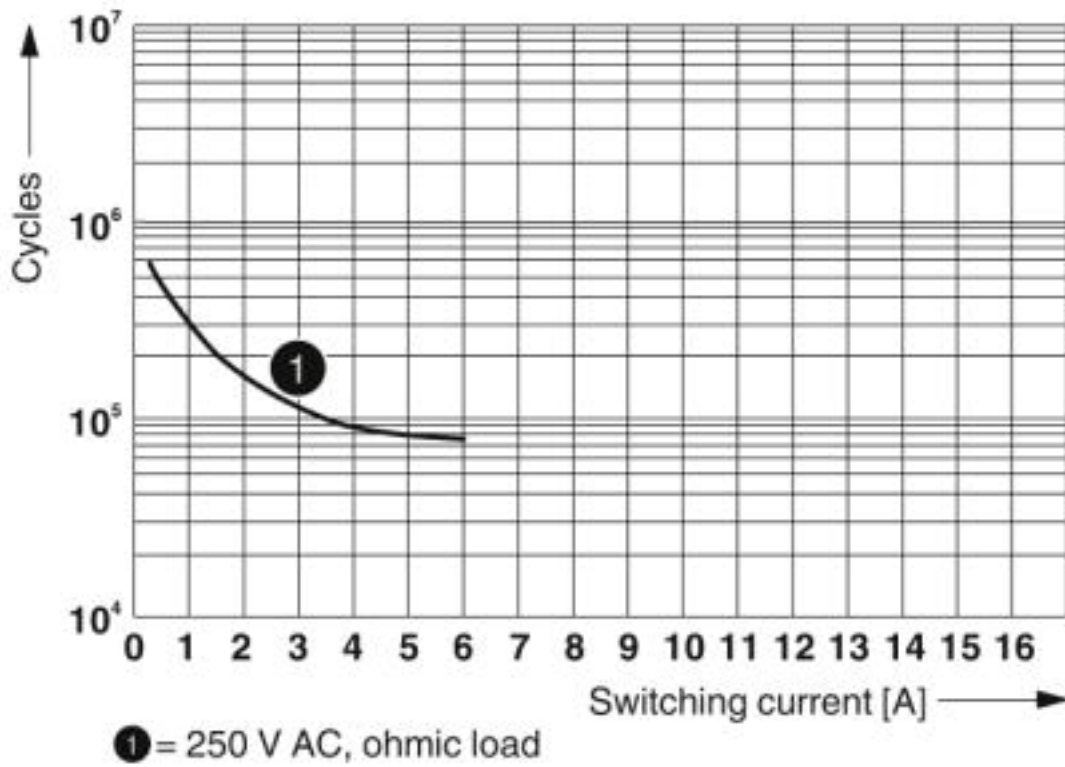
Diagram



Interrupting rating

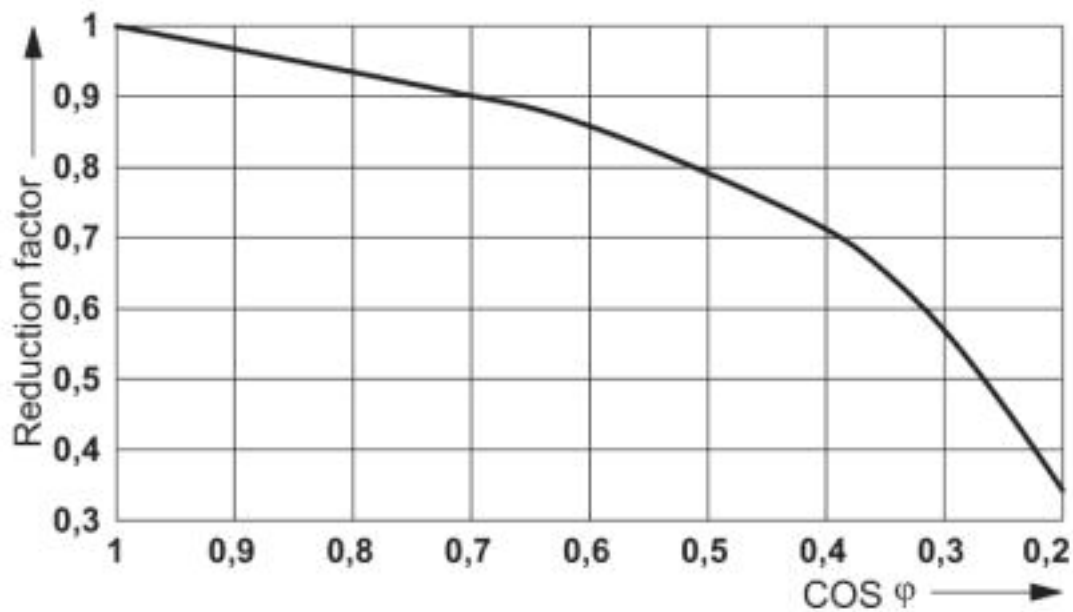
# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

Diagram



Electrical service life

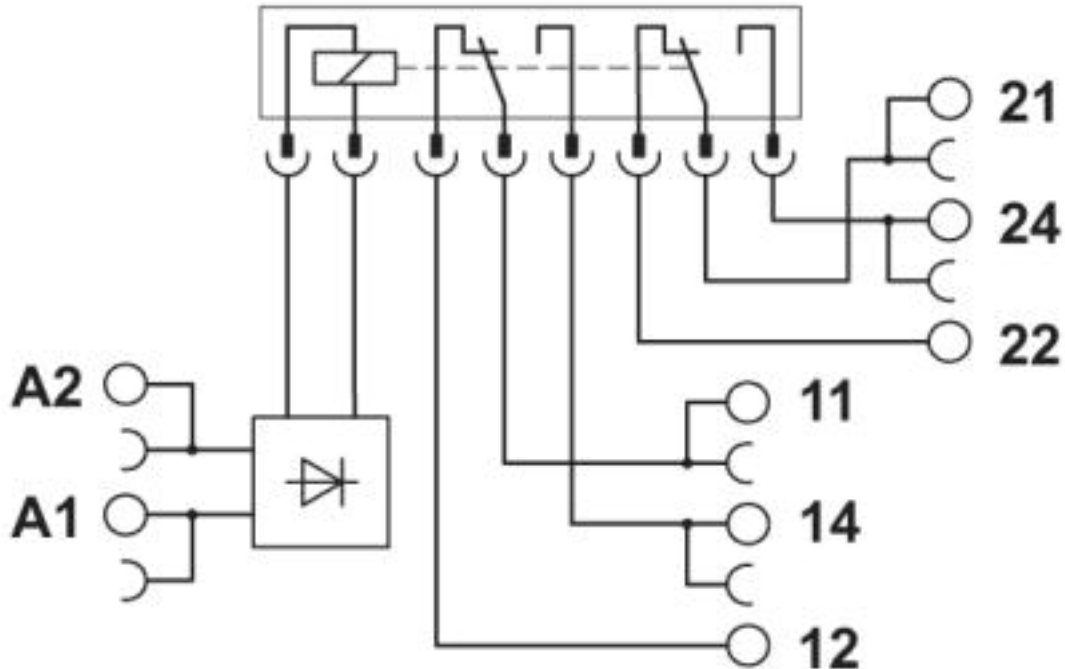
Diagram



Service life reduction factor

## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

Circuit diagram



### Articles in set

Relay base - PLC-BPT-120UC/21-21/H - 1012002



14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 2 PDT, Input voltage 120 V AC/DC

Single relay - REL-MR-110DC/21-21AU/MS - 1013727



Plug-in miniature relay, with multi-layer contact with hard gold coating, 2 changeover contacts, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2-, input voltage 110 V DC

### Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27371600 |
| eCl@ss 5.1 | 27371600 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371601 |

# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

## Classifications

### eCl@ss

|            |          |
|------------|----------|
| 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 |
| ETIM 7.0 | EC001437 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39122334 |
| UNSPSC 18.0   | 39122334 |
| UNSPSC 19.0   | 39122334 |
| UNSPSC 20.0   | 39122334 |
| UNSPSC 21.0   | 39122334 |

## Approvals

### Approvals

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#### Approvals

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


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#### Ex Approvals

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### Approval details

|           |   |   |               |
|-----------|---|---|---------------|
| UL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|-----------|---|---|---------------|

|               |   |   |               |
|---------------|---|---|---------------|
| UL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 238705 |
|---------------|---|---|---------------|



# Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

## Approvals

|                |  |   |               |
|----------------|--|---|---------------|
| cUL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 238705 |
|----------------|--|---|---------------|

|            |  |   |               |
|------------|--|---|---------------|
| cUL Listed |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|------------|--|---|---------------|

|        |  |   |               |
|--------|--|---|---------------|
| DNV GL |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a> | TAE0000196-02 |
|--------|--|---|---------------|

|     |  |  |                 |
|-----|--|--|-----------------|
| EAC |  |  | TR_TS_D_00573_c |
|-----|--|--|-----------------|

|     |  |  |                 |
|-----|--|--|-----------------|
| EAC |  |  | TR_TS_S_00010_c |
|-----|--|--|-----------------|

|                  |  |  |  |
|------------------|--|--|--|
| 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

## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

### Accessories

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



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

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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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## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

### Accessories

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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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, acc. to EN 60715, 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, acc. to EN 60715, 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, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

### Accessories

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



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

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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, acc. to EN 60715, 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, material: Aluminum, uncoated, length: 2000 mm, color: silver

---

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



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

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## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

### Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, 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 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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### 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

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### 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

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### 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

## Relay Module - PLC-RPT-120UC/21-21AU/MS - 2910528

### Accessories

#### 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, Number of individual labels: 1000

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



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: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

### Spare parts

Relay base - PLC-BPT-120UC/21-21/H - 1012002



14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 2 PDT, Input voltage 120 V AC/DC

Single relay - REL-MR-110DC/21-21AU/MS - 1013727



Plug-in miniature relay, with multi-layer contact with hard gold coating, 2 changeover contacts, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2-, input voltage 110 V DC