

# Relay Module - PLC-RPT-12DC/21/EX - 2909527


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PLC-INTERFACE, consisting of DIN-rail-mountable basic terminal block in 6.2 mm with Push-in connection and plug-in miniature relay with 6 A power contact, 1 changeover contact, 12 V DC input voltage. Approved according to ATEX/IECEX (Zone 2) and Ex Zone Class I, Div. 2.



## Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 10 pc   |
| Minimum order quantity | 10 pc   |
| GTIN                   | <br>4 055626 363646 |
| GTIN                   | 4055626363646   |

## 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

|   |                                 |
|---|---------------------------------|
| Ambient temperature (operation)         | -20 °C ... 60 °C (UL)           |
|   | -40 °C ... 60 °C (ATEX / IECEx) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C                |
| Degree of protection                    | IP20 (Relay base)               |

### Coil side

|                                |         |
|--------------------------------|---------|
| Nominal input voltage $U_N$    | 12 V DC |
| Typical input current at $U_N$ | 15.3 mA |
| Typical response time          | 5 ms    |

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### Coil side

|   |   |
|---|---|
| Typical release time                    | 8 ms  |
| Protective circuit                      | Reverse polarity protection Polarity protection diode |
|   | Free-wheeling diode Damping diode                     |
| Operating voltage display               | Yellow LED  |
| Power dissipation for nominal condition | 0.18 W  |

### Contact side

|                                       |   |
|---------------------------------------|---|
| Contact type                          | 1 PDT   |
| Type of switch contact                | Single contact  |
| 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                    | 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 relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)   |
| Operating mode                           | 100% operating factor     |
| Mechanical service life                  | 2x 10 <sup>7</sup> cycles |
| 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> |

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## Technical data

### Connection data

|                                  |  |
|----------------------------------|--|
| 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 | IEC 60664                             |
|                       | EN 50178                              |
|                       | EN 60079-0, -7, -15                   |
| Pollution degree      | 3                                     |
| Overvoltage category  | III                                   |
| Conformance           | CE-compliant                          |
| ATEX                  | # II 3G Ex ec nC IIC T4 Gc            |
| IECEX                 | Ex ec nC IIC T4 Gc                    |
| UL, USA               | Class I, Zone 2, AEx nA nC IIC T6     |
| UL, USA/Canada        | Class I, Div. 2, Groups A, B, C, D    |
| UL, Canada            | Class I, Zone 2, Ex nA nC IIC Gc T6 X |

### Conformance/approvals

|                |                                    |
|----------------|------------------------------------|
| Designation    | CE                                 |
| Identification | CE-compliant                       |
| Designation    | ATEX                               |
| Identification | # II 3G Ex ec nC IIC T4 Gc         |
| Certificate    | IBExU16ATEXB015 X                  |
| Designation    | IECEX                              |
| Identification | Ex ec nC IIC T4 Gc                 |
| Certificate    | IECEX IBE 16.0029X                 |
| Designation    | UL, USA                            |
| Identification | Class I, Zone 2, AEx nA nC IIC T6  |
| Designation    | UL, USA/Canada                     |
| Identification | Class I, Div. 2, Groups A, B, C, D |

# Relay Module - PLC-RPT-12DC/21/EX - 2909527

## Technical data

### Conformance/approvals

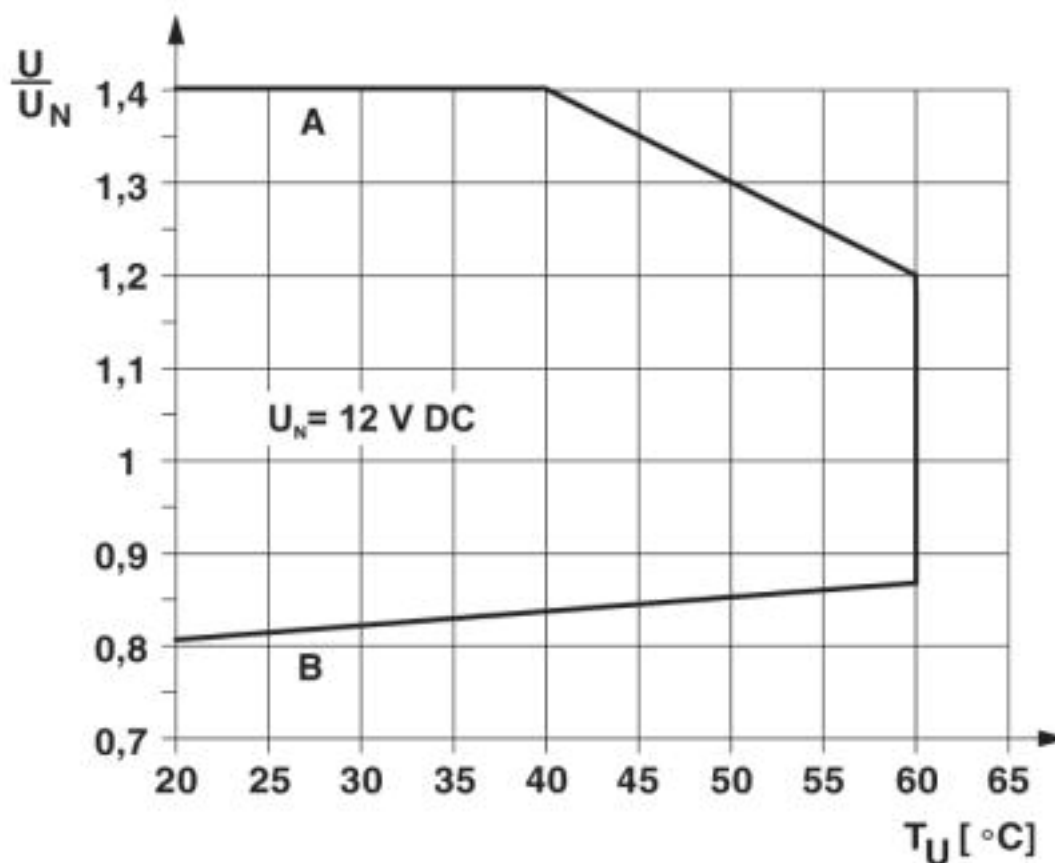
|                |                                       |
|----------------|---------------------------------------|
| Designation    | UL, Canada                            |
| Identification | Class I, Zone 2, Ex nA nC IIC Gc T6 X |

### Environmental Product Compliance

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

## Drawings

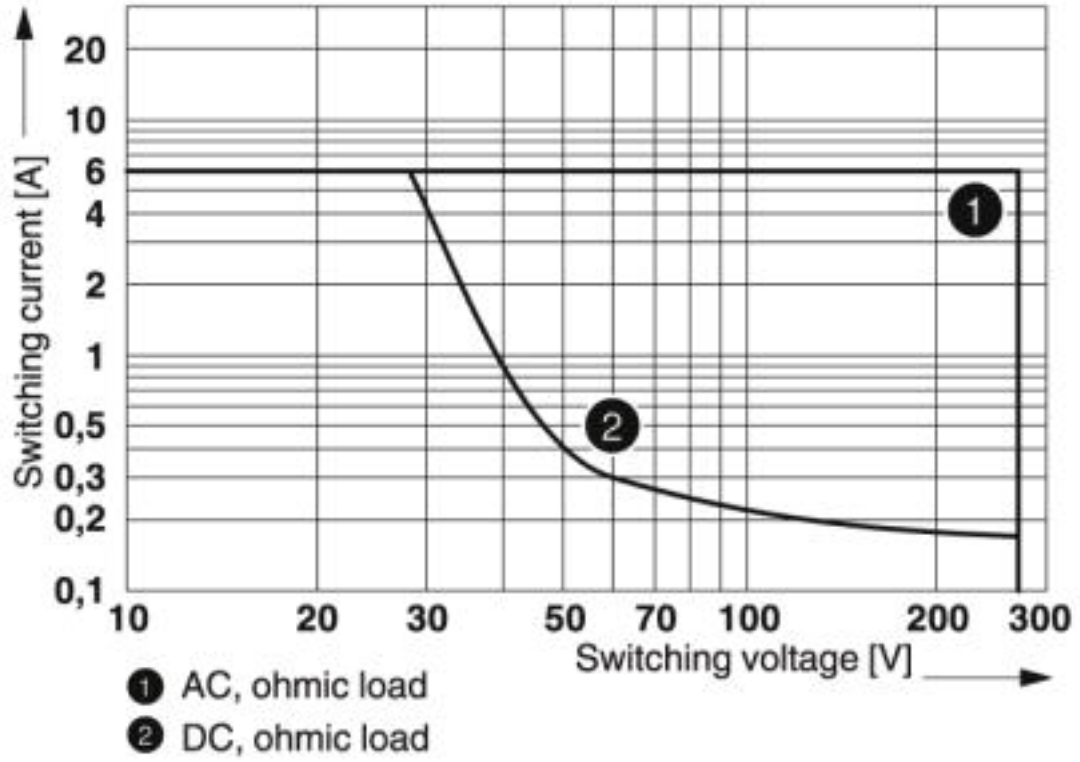
Diagram



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

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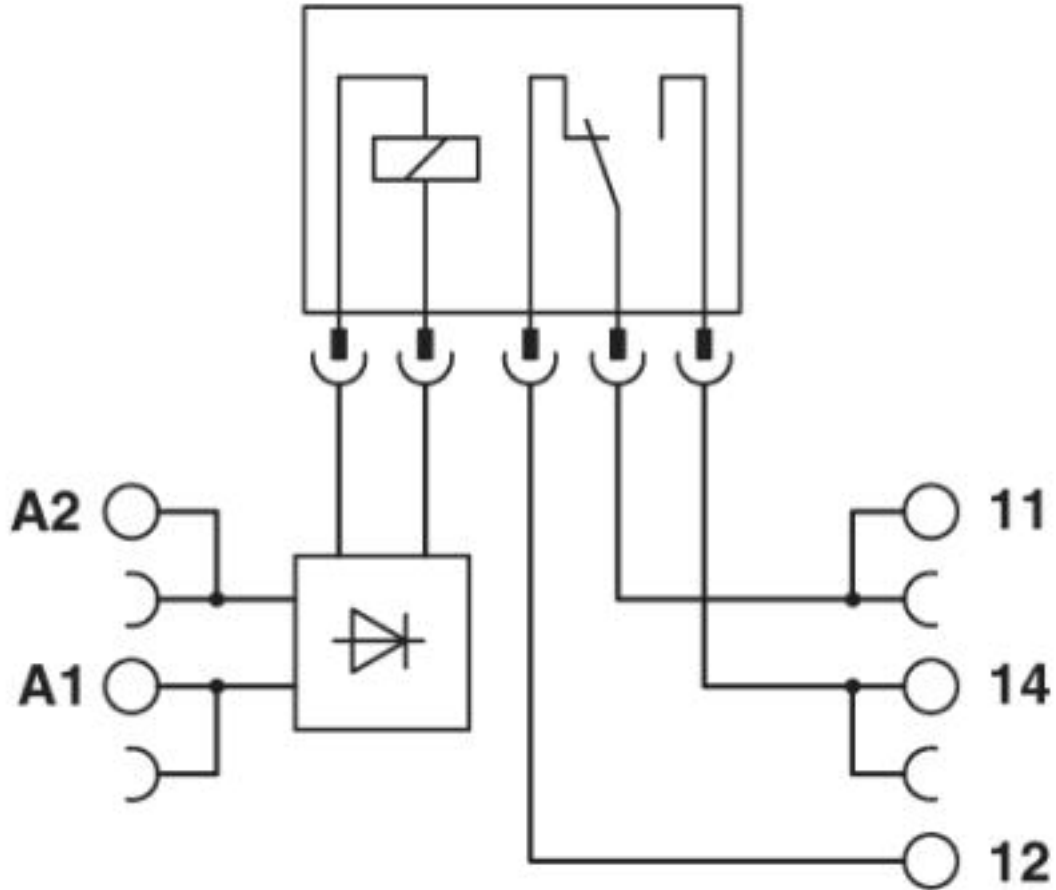
Diagram



Interrupting rating

# Relay Module - PLC-RPT-12DC/21/EX - 2909527

Circuit diagram



## Approvals

Approvals

Approvals

EAC / DNV GL

Ex Approvals

IECEX / ATEX / UL Listed / cUL Listed / cULus Listed

## Approval details

EAC



RU C-  
DE.A\*30.B.01082

## Relay Module - PLC-RPT-12DC/21/EX - 2909527

### Approvals

DNV GL



<https://approvalfinder.dnvgl.com/>

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