

PLC-RPT- 24DC/ 1/ACT - Relay module



2900312

<https://www.phoenixcontact.com/us/products/2900312>

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PLC-INTERFACE for output functions, consisting of PLC-BPT.../ACT basic terminal block with push-in connection and plug-in miniature relay with power contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 24 V DC

Your advantages

- Actuator connected directly to relay module
- Efficient connection to system cabling using V8 adapter
- No need for additional modular terminal blocks
- Time savings of up to 60 %
- Relay modules with safe isolation according to DIN EN 50178 between coil and contact
- Space savings of up to 80 %
- Functional plug-in bridges

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2900312 |
| Packing unit | 10 pc |
| Minimum order quantity | 1 pc |
| Sales key | C462 |
| Product key | CK62A6 |
| Catalog page | Page 374 (C-5-2019) |
| GTIN | 4046356510004 |
| Weight per piece (including packing) | 34.7 g |
| Weight per piece (excluding packing) | 32.997 g |
| Customs tariff number | 85364190 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|-------------------------|---------------------------|
| Product type | Relay Module |
| Product family | PLC-INTERFACE |
| Application | Output function |
| Operating mode | 100% operating factor |
| Mechanical service life | 2x 10 ⁷ cycles |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 01.07.2024 |
| Article revision | 05 |

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 0.22 W |
| Test voltage (Winding/contact) | 4 kV AC (50 Hz, 1 min., winding/contact) |

Insulation characteristics: Coil/contact

| | |
|---------------------------------|-------|
| Rated insulation voltage | 250 V |
| Rated impulse withstand voltage | 6 kV |
| Overvoltage category | III |
| Degree of pollution | 3 |

Input data

Coil side

| | |
|--|--|
| Nominal input voltage U _N | 24 V DC |
| Input voltage range | 18.5 V DC ... 33.6 V DC (20 °C) |
| Nominal voltage (plugged-in electromechanical relay) | 24 V DC |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at U _N | 9 mA |
| Typical response time | 5 ms |
| Typical release time | 8 ms |
| Protective circuit | Reverse polarity protection; Polarity protection diode Surge protection; Freewheeling diode |
| Operating voltage display | Yellow LED |

Output data

Switching

| | |
|-------------------------|----------------|
| Contact switching type | 1 N/O contact |
| Type of switch contact | Single contact |
| Contact connection type | Power contact |
| Contact material | AgSnO |

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| | |
|---------------------------------------|---|
| 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) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 10 A (4 s) |
| Min. switching current | 10 mA (12 V) |
| Short-circuit current | 200 A (conditional short-circuit current) |
| 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) |
| Output fuse | 4 A gL/gG NEOZED |
| 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) |

Connection data

| | |
|----------------------------------|--|
| Connection method | Push-in connection |
| Stripping length | 10 mm |
| Conductor cross section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| | 0.2 mm ² ... 2.5 mm ² (Single ferrule) |
| | 2x 0.5 mm ² ... 1 mm ² (TWIN ferrule) |
| Conductor cross section AWG | 26 ... 14 |

Dimensions

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

Material specifications

| | |
|--|-----------------|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 | V0 (Housing) |

Environmental and real-life conditions

Ambient conditions

| | |
|-----------------------------------|-------------------|
| Degree of protection (Relay) | RT III (Relay) |
| Degree of protection (Relay base) | IP20 (Relay base) |

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| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

CE

| | |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

UKCA

| | |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

Shipbuilding approval

| | |
|-------------|------------|
| Certificate | TAE0000196 |
|-------------|------------|

Corrosive gas test

| | |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
| | EN 60068-2-60 |

DNV GL data

| | |
|-------------|---|
| Temperature | D |
| Humidity | A |
| Vibration | B/C |
| EMC | B |
| Enclosure | Required protection according to the Rules shall be provided upon installation on board |

EMC data

| | |
|-------------------------------|--|
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Electromagnetic compatibility | Conformance with EMC directive |

Standards and regulations

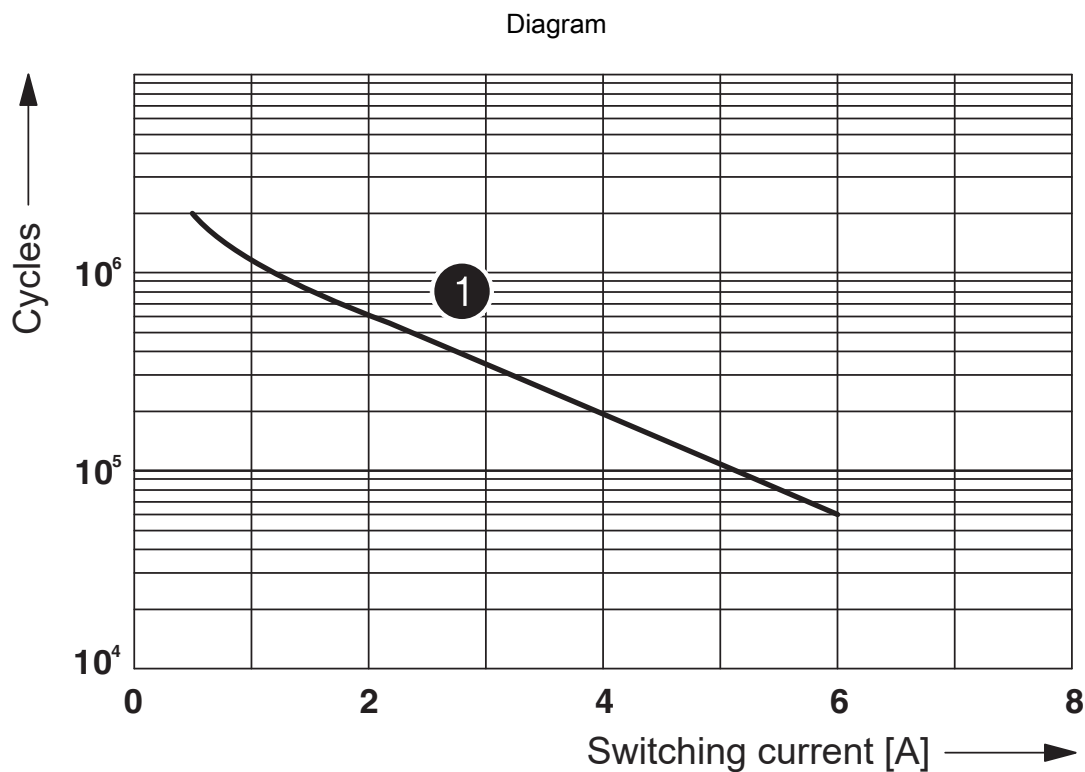
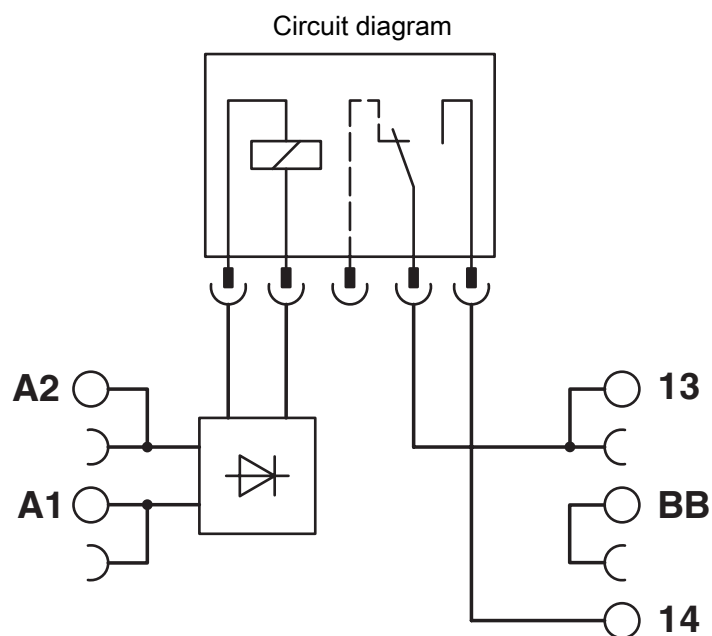
Standards/regulations

| | |
|-----------------------|--|
| Standards/regulations | IEC 60664 |
| | IEC 60664A |
| | DIN VDE 0110 |
| | IEC 60255/DIN VDE 0435 (in relevant parts) |

Mounting

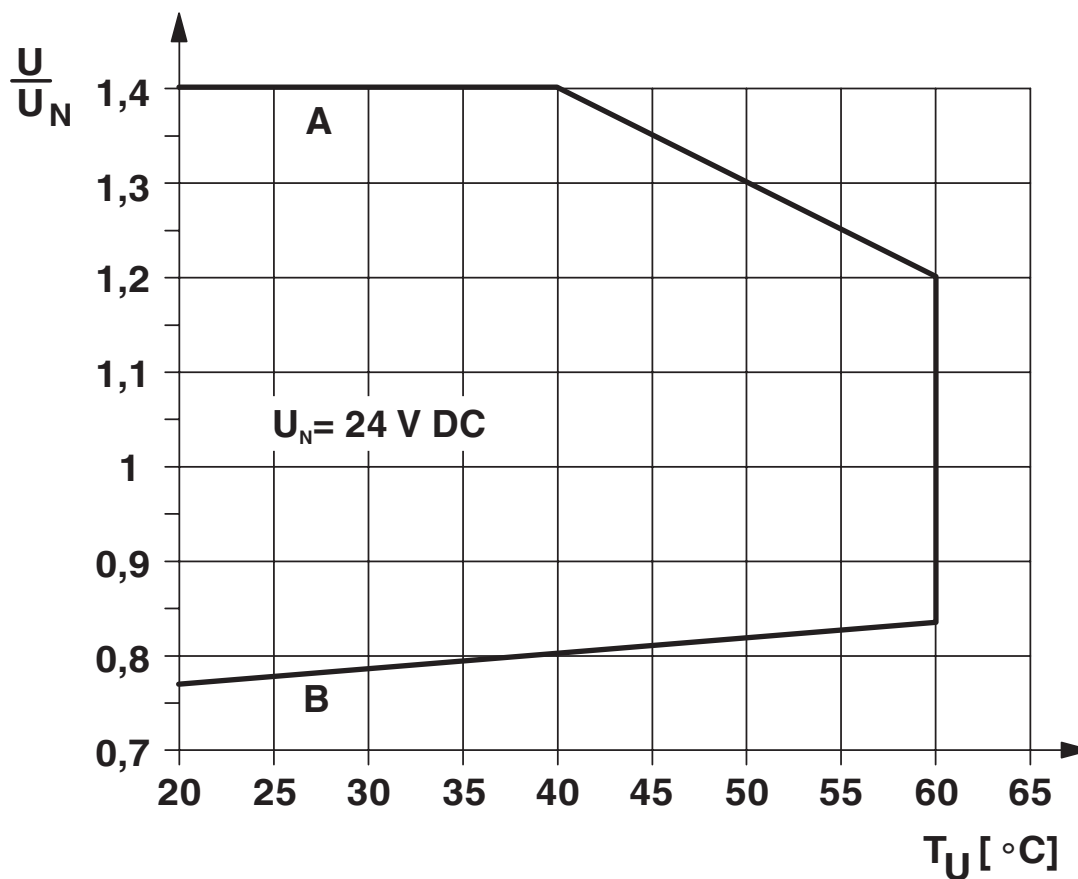
| | |
|-------------------|---------------------------|
| Mounting type | DIN rail mounting |
| Assembly note | in rows with zero spacing |
| Mounting position | any |

Drawings



① 250 V AC, ohmic load

Diagram

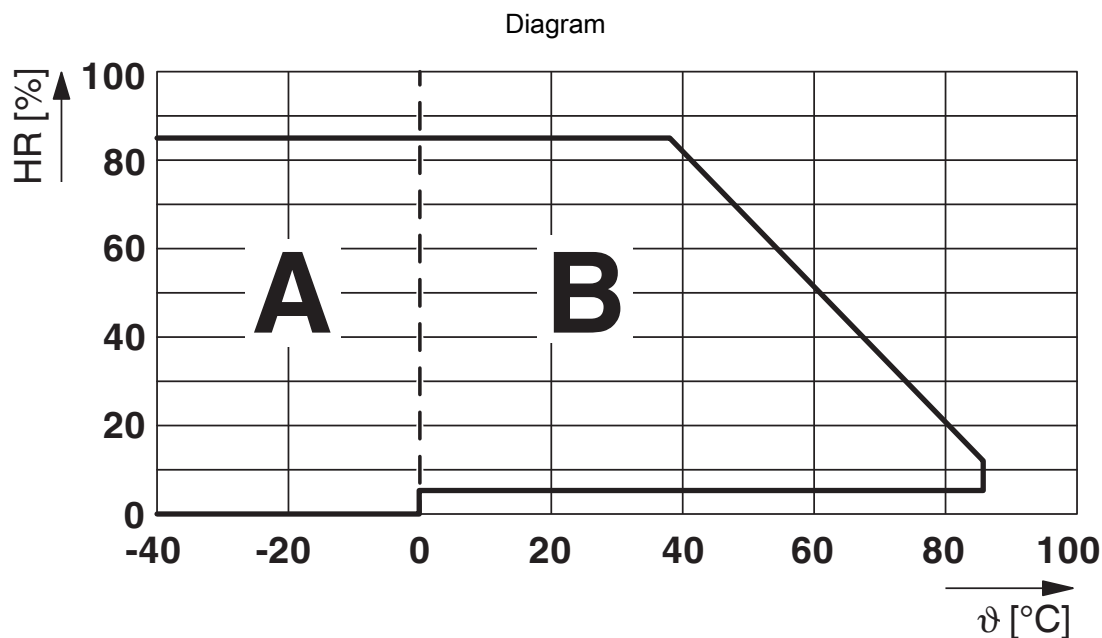


Curve A

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)



Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2900312>




cUL Recognized
Approval ID: E238705




UL Recognized
Approval ID: E238705



EAC
Approval ID: TR_TS_D_00573_c




DNV GL
Approval ID: TAE0000196



UL Listed
Approval ID: FILE E 172140



cUL Listed
Approval ID: FILE E 172140



cULus Listed
Approval ID: E140324

cULus Recognized

cULus Listed

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

Environmental product compliance

EU RoHS

| | |
|---|--------------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 7(a), 7(c)-I |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|---|
| REACH candidate substance (CAS No.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
| | Lead(CAS: 7439-92-1) |
| SCIP | b2280f04-1573-445f-be7f-5fd3facbadb8 |

EF3.0 Climate Change

| | |
|---------|---------------|
| CO2e kg | 0.438 kg CO2e |
|---------|---------------|