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

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 510004
GTIN	4046356510004
Weight per Piece (excluding packing)	36.000 g
Custom tariff number	85364190
Country of origin	Germany

Technical data

Note

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

Dimensions

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Technical data

Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	RT III (Relay)
	IP20 (Relay base)

Coil side

Nominal input voltage U_N	24 V DC
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
	Free-wheeling diode Damping diode
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.22 W

Contact side

Contact type	1 N/O contact
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)

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Contact side

	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	$2x\ 10^7$ 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 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
	0.2 mm² ... 2.5 mm² (Single ferrule)
	2x 0.5 mm² ... 1 mm² (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 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
	0.2 mm² ... 2.5 mm² (Single ferrule)
	2x 0.5 mm² ... 1 mm² (TWIN ferrule)
Conductor cross section AWG	26 ... 14

Standards and Regulations

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

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Standards and Regulations

	DIN EN 50178/VDE 0160
	IEC 60255/DIN VDE 0435 (in relevant parts)
Pollution degree	3
Overvoltage category	III

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

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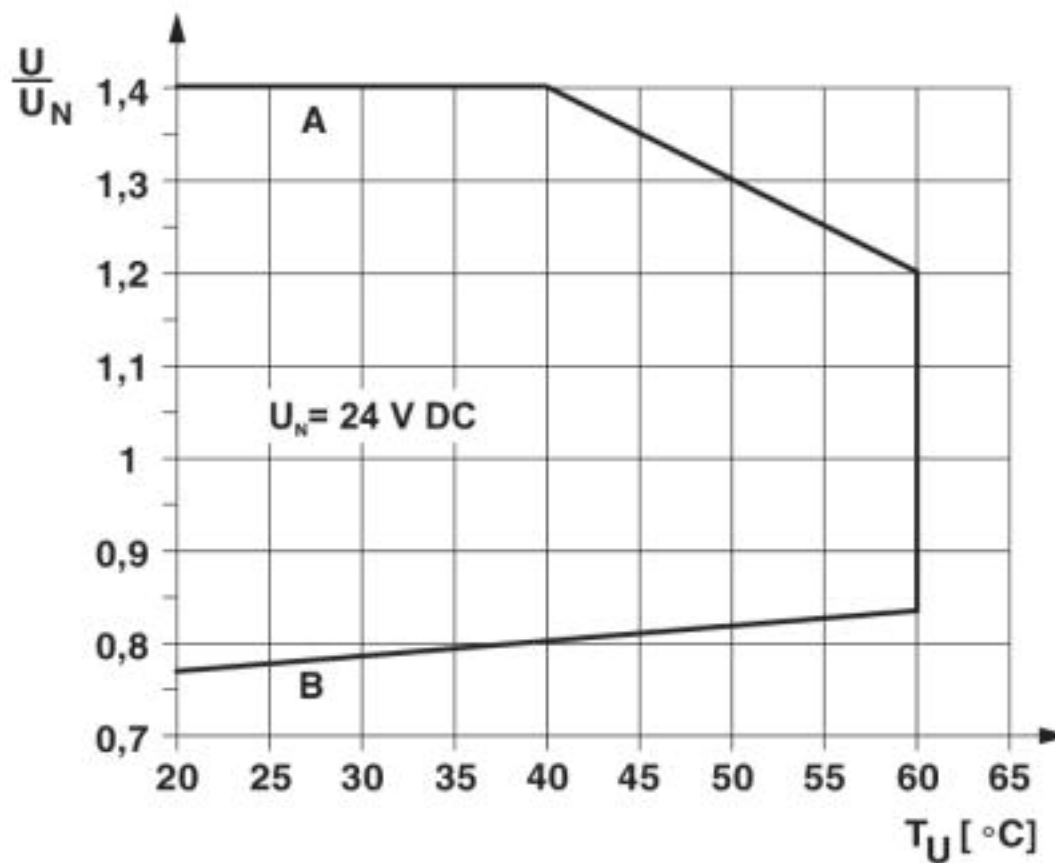
Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

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)

Circuit diagram
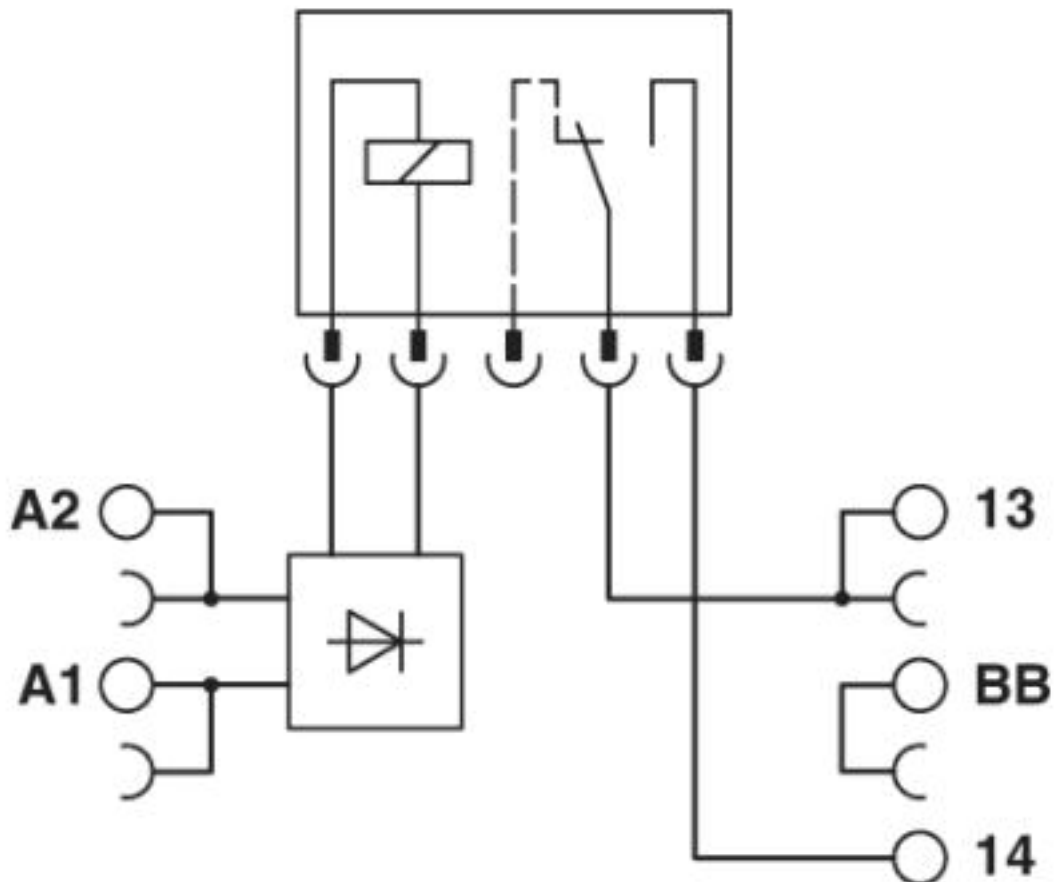
Articles in set

Relay base - PLC-BPT- 24DC/ 1/ACT - 2900449

6.2 mm PLC basic terminal block for output functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

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Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Articles in set

Single relay - REL-MR- 24DC/21 - 2961105

Plug-in miniature power relay, with power contact, 1 PDT, input voltage 24 V DC

Classifications

eCl@ss

eCl@ss 4.0	27371000
eCl@ss 4.1	27371000
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
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
ETIM 7.0	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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Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Approvals

Approvals

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

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE0000196-02

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

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

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

RC FRT			B.00094

EAC			TR_TS_D_00573_c

Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Approvals

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

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

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

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Accessories

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

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

V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: IDC/FLK pin strip 1x 14-position, connection 3: Plug connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: positive switching

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Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Accessories

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

V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: IDC/FLK pin strip 1x 14-position, connection 3: Plug connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: negative switching

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

V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: D-SUB pin strip 1x 15-position, connection 3: Plug connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: positive switching

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

V8 adapter for 8 x PLC-INTERFACE (6.2 mm), controller: PLC system cabling of output cards, connection 1: Screw connection 1x, connection 2: D-SUB socket strip 1x 15-position, connection 3: Plug connection (Can be snapped onto 8x PLC-INTERFACE terminals), number of channels: 8, control logic: positive switching

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

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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Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Accessories

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

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

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

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

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

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Relay Module - PLC-RPT- 24DC/ 1/ACT - 2900312

Accessories

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

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

Labeled terminal marker

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

Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-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 size: 6.15 x 10.5 mm, Number of individual labels: 10

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

Power module

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Accessories

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

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Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003

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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

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

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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 6 - 0818085

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

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Accessories

Marker for terminal blocks - UCT-TM 6 - 0828736

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

Spare parts

Relay base - PLC-BPT- 24DC/ 1/ACT - 2900449

6.2 mm PLC basic terminal block for output functions with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with load return line connection (BB), 1 N/O contact, input voltage 24 V DC

Single relay - REL-MR- 24DC/21 - 2961105

Plug-in miniature power relay, with power contact, 1 PDT, input voltage 24 V DC