

## Relay Module - PLC-RPT- 12DC/21HC - 2900290

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PLC-INTERFACE, consisting of PLC-BPT.../21 HC basic terminal block with Push-in connection and plug-in miniature relay for high continuous current, for mounting on NS 35/7,5 DIN rail, 1 PDT, input voltage: 12 V DC, limiting continuous current up to 10 A


The figure shows a version with a screw connection

### Why buy this product

- ✓ Efficient connection to system cabling using V8 adapter
- ✓ All common input voltages of 12 V DC to 230 V AC
- ✓ Long electrical service life thanks to 16 A relay
- ✓ Safe isolation according to DIN EN 50178 between coil and contact
- ✓ Max. continuous current of 10 A
- ✓ Functional plug-in bridges



### Key commercial data

Packing unit	10 pc
GTIN	 4 046356 509251
Weight per Piece (excluding packing)	60.4 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
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#### Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

#### Ambient conditions

# Relay Module - PLC-RPT- 12DC/21HC - 2900290

## Technical data

### Ambient conditions

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

### Coil side

Nominal input voltage $U_N$	12 V DC
Nominal input current at $U_{IN}$	33 mA
Typical response time	8 ms
Typical release time	10 ms
Operating voltage display	Yellow LED
Protective circuit	Protection against polarity reversal Polarity protection diode
	Free-wheeling diode Damping diode

### Contact side

Contact type	1 PDT
Contact material	AgNi
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	12 V AC/DC
Maximum inrush current	30 A (300 ms)
Min. switching current	100 mA
Limiting continuous current	10 A
	6 A (value applies to connections 12. If connections 12 are bridged, the normal value applies.)
Interrupting rating (ohmic load) max.	240 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	2500 VA (for 250 V AC)
Interrupting rating (ohmic load) max. bridged	144 W (for 24 V DC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)
	1500 VA (for 250 V AC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.)

### General

Operating mode	100% operating factor
Degree of protection	RT II (Relay)
Mechanical service life	$3 \times 10^7$ cycles
Inflammability class according to UL 94	V0
Name	Standards/regulations
Standards/regulations	IEC 60664
	EN 50178

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## Technical data

### General

	IEC 62103
Rated surge voltage / insulation	6 kV / Safe isolation, increased insulation
Pollution degree	2
Surge voltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

### Connection data

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

## Articles in set

Relay socket - PLC-BPT- 12DC/21HC - 2900253



14 mm PLC-HC basic terminal blocks with Push-in connection, input voltage 12 V DC (without relay or optocoupler)

Single relay - REL-MR- 12DC/21HC - 2961309



Pluggable miniature relays, with power contact for high continuous current, 1 PDT, input voltage 12 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

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## Classifications

### eCl@ss

eCl@ss 7.0	27371001
eCl@ss 8.0	27371001

### ETIM

ETIM 4.0	EC000196
ETIM 5.0	EC000196

### UNSPSC

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

## Approvals

### Approvals

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#### Approvals

GL / UL Listed / cUL Listed / UL Recognized / cUL Recognized / cULus Recognized / cULus Listed

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#### Ex Approvals

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#### Approvals submitted

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### Approval details

GL


UL Listed


cUL Listed

UL Recognized

## Relay Module - PLC-RPT- 12DC/21HC - 2900290

### Approvals

cUL Recognized 

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

## Relay Module - PLC-RPT- 12DC/21HC - 2900290

### Accessories

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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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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Labeled terminal marker

## Relay Module - PLC-RPT- 12DC/21HC - 2900290

### Accessories

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014



Zack marker strip, Strip, white, labeled, Can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, For terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

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### Mounting 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

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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

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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

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



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

## Relay Module - PLC-RPT- 12DC/21HC - 2900290

### Accessories

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

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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

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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

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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

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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

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### Partition plate



# Relay Module - PLC-RPT- 12DC/21HC - 2900290

## Accessories

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

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## Terminal marking

Zack marker strip - ZB10/WH-100:UNBEDRUCKT - 5060883



Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



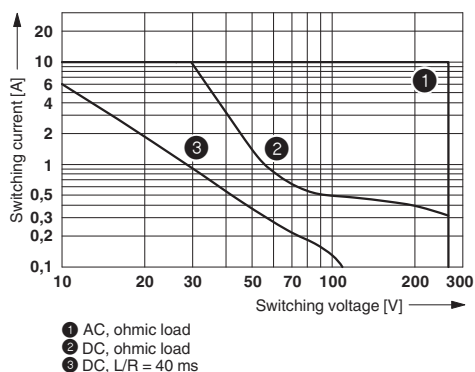
Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm

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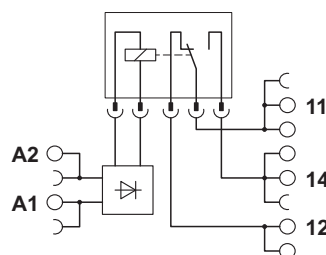
## Drawings

# Relay Module - PLC-RPT- 12DC/21HC - 2900290

Diagram

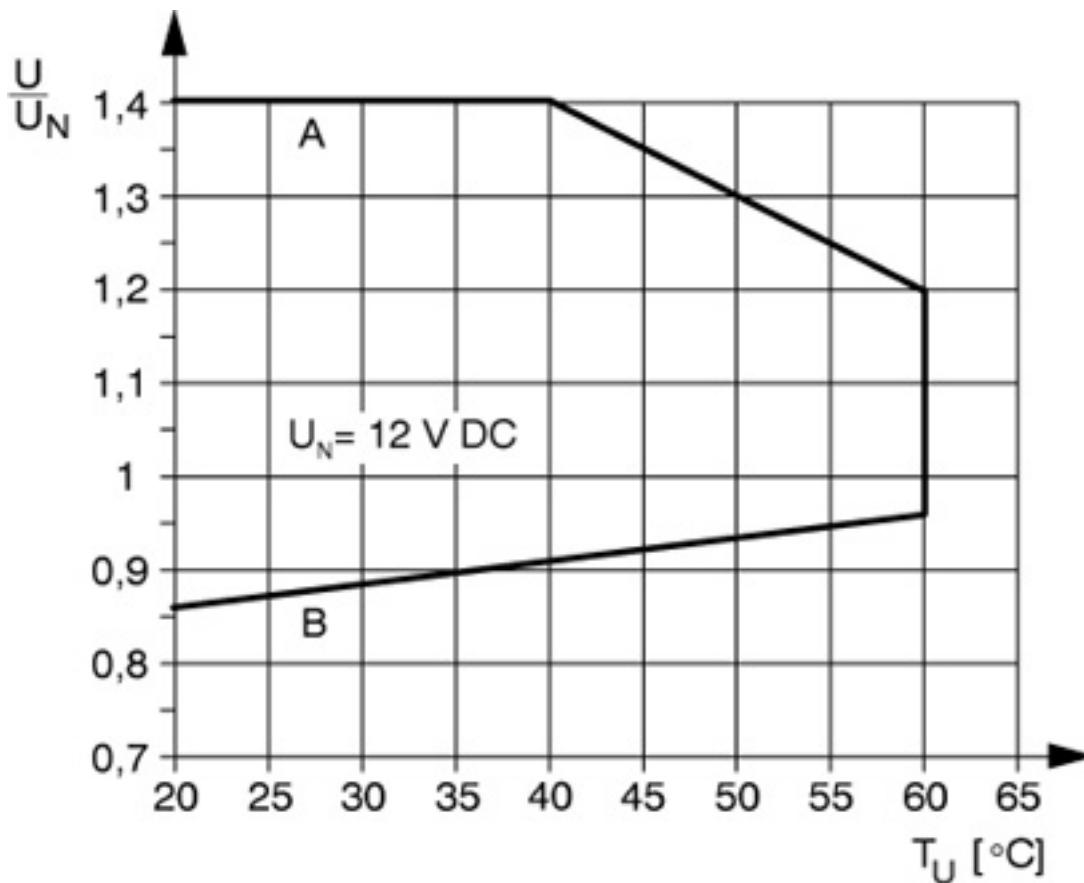


Circuit diagram



Interrupting rating

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)

