

Relay Module - PLC-RPT- 12DC/21 - 2900316

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PLC-INTERFACE, consisting of PLC-BPT.../21 basic terminal block with push-in technology and plug-in miniature relay with power contact, for mounting on NS 35/7,5 DIN rails, 1 PDT, input voltage: 12 V DC

Product Features

- Slim design
- Efficient connection to system cabling using V8 adapter
- RT III sealed relay
- Safe isolation according to DIN EN 50178 between coil and contact
- Functional plug-in bridges
- Integrated input circuit and interference suppression circuit



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	36.0 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
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Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Ambient conditions

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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
Typical input current at U_N	15.3 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	0.18 W

Contact side

Contact type	1 PDT
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 in acc. with DIN VDE 0660/IEC 60947	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 input side

Connection name	Coil side
Connection method	Push-in connection

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Connection data input side

Stripping length	8 mm
Conductor cross section solid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 14

Connection data output side

Connection name	Contact side
Connection method	Push-in connection
Stripping length	8 mm
Conductor cross section solid	0.14 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 14

General

Note	Separating plate PLC-ATP must 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....
Test voltage relay winding/relay contact	4 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	RT III (Relay)
Mechanical service life	2 x 10 ⁷ cycles
Flammability rating according to UL 94	V0
Designation	Standards/regulations
Standards/regulations	IEC 60664
	IEC 60664A
	DIN VDE 0110
	DIN EN 50178/DIN VDE 0160 (in relevant parts)
	DIN EN 50178/VDE 0160
	IEC 60255/DIN VDE 0435 (in relevant parts)
Degree of pollution	3
Overvoltage category	III
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Connection in acc. with standard	CUL
Designation	Standards/regulations
Standards/regulations	IEC 60664
	IEC 60664A

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Technical data

Standards and Regulations

	DIN VDE 0110
	DIN EN 50178/DIN VDE 0160 (in relevant parts)
	DIN EN 50178/VDE 0160
	IEC 60255/DIN VDE 0435 (in relevant parts)
Degree of pollution	3
Overvoltage category	III
Flammability rating according to UL 94	V0

Articles in set

Relay socket - PLC-BPT- 12DC/21 - 2900444



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 12 V DC

Single relay - REL-MR- 12DC/21 - 2961150



Plug-in miniature power relay, with power contact, 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
eCl@ss 7.0	27371001
eCl@ss 8.0	27371601
eCl@ss 9.0	27371601

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Classifications

ETIM

ETIM 3.0	EC000196
ETIM 4.0	EC000196
ETIM 5.0	EC001437

UNSPSC

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

Approvals

Approvals

Approvals

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

Ex Approvals

Approvals submitted

Approval details

UL Recognized 

UL Listed 

cUL Recognized 
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Relay Module - PLC-RPT- 12DC/21 - 2900316

Approvals

cUL Listed 

GL

EAC

RC FRT

EAC

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

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Accessories

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



Continuous plug-in bridge, Length: 500 mm, Color: gray

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

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Accessories

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



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Plus switching

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



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Minus switching

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



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Additional Products"). 15-pin D-SUB male connector, control logic: Positive switching

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



V8-OUTPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Additional Products"). 15-pin D-SUB female connector, control logic: Positive switching

DIN 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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Accessories

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

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

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



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

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

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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Accessories

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

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

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

Labeled terminal marker

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



Zack marker strip, Strip, white, labeled, can be labeled with: 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: 6.15 x 10.5 mm

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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Accessories

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

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

Terminal marking

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

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



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm

Spare parts

Relay Module - PLC-RPT- 12DC/21 - 2900316

Accessories

Relay socket - PLC-BPT- 12DC/21 - 2900444



6.2 mm PLC basic terminal block with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 12 V DC

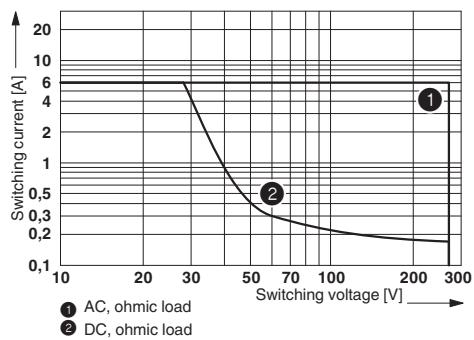
Single relay - REL-MR- 12DC/21 - 2961150



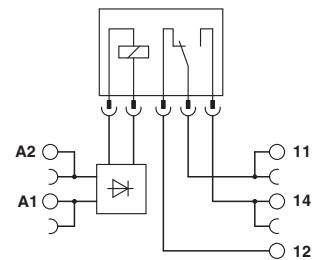
Plug-in miniature power relay, with power contact, 1 PDT, input voltage 12 V DC

Drawings

Diagram



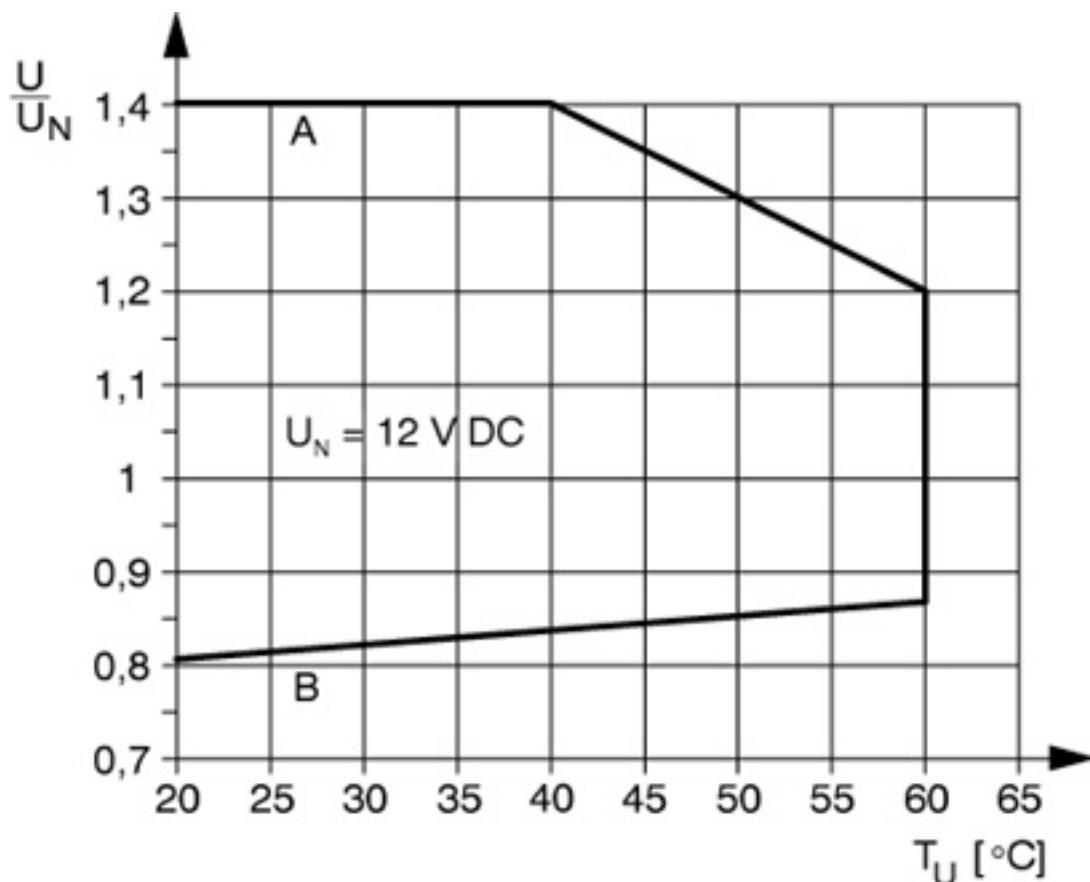
Circuit diagram



Interrupting rating

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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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