PHŒNIX CONTACT

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

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PLC-INTERFACE, consisting of a relay base and pluggable power contact relay with manual operation, integrated status LED and freewheeling diode, Push-in connection, 2 PDT, Input voltage: 24 V DC

RoHS

Key Commercial Data

Packing unit	10 STK
GTIN	
GTIN	4055626486710
Weight per Piece (excluding packing)	64.000 g
Custom tariff number	85364190
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Note

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

Dimensions

Width	14 mm
Height	80 mm
Depth	104 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 85 °C

Coil side

Nominal input voltage U_N	24 V DC
Typical input current at U_N	18 mA

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Technical data

Coil side

Typical response time	10 ms
Typical release time	10 ms
Coil voltage	24 V DC
Protective circuit	Free-wheeling diode Damping diode
Operating voltage display	Yellow LED

Contact side

Contact type	2 PDT
Type of switch contact	Single contact
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 (10 mA)
Min. switching current	10 mA (12 V)
Maximum inrush current	12 A (20 ms)
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	192 W (24 V DC)
	62 W (48 V DC)
	42 W (60 V DC)
	55 W (110 V DC)
	66 W (220 V DC)
	2000 VA (250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	1 A (24 V, DC13)
	1.5 A (230 V, AC15)

Connection data input side

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 ()
	2x 0.5 mm² ... 1 mm² ()
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 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²

PHŒNIX CONTACT

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Technical data

Connection data output side

	0.2 mm² ... 2.5 mm² ()
	2x 0.5 mm² ... 1 mm² ()
Conductor cross section AWG	26 ... 14

General

Test voltage relay winding/relay contact	4 kV AC (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Degree of protection	RT II (Relay)
	IP20 (Relay base)
Mechanical service life	$5x\ 10^6$ cycles
UL, USA	UL 508
	UL 508 Recognized
UL, USA/Canada	cUL 508
	cUL 508 Recognized
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Designation	Standards/regulations
Standards/regulations	EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	Safe isolation of input/output
Degree of pollution	2
Overvoltage category	III
Flammability rating according to UL 94	V0
UL, USA	UL 508
	UL 508 Recognized
UL, USA/Canada	cUL 508
	cUL 508 Recognized

Environmental Product Compliance

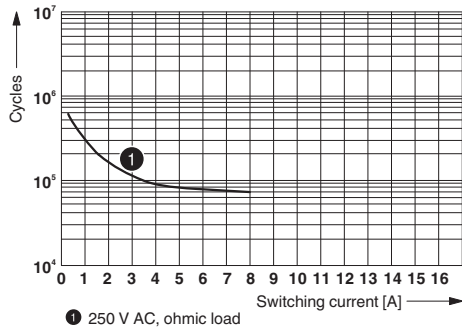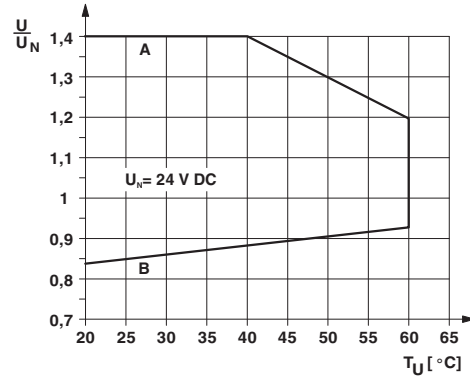|	
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

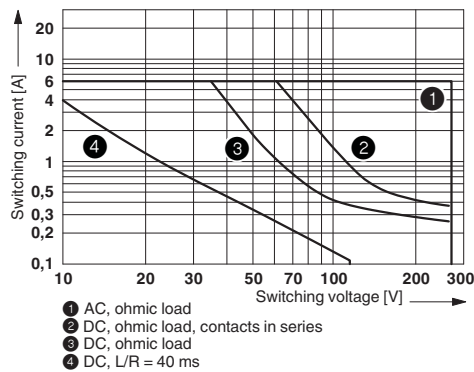# Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Diagram

Electrical service life
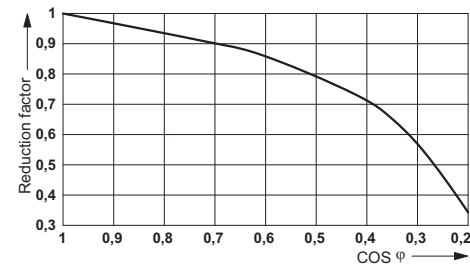
❶ 250 V AC, ohmic load

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)

Diagram

Interrupting rating

❶ AC, ohmic load
❷ DC, ohmic load, contacts in series
❸ DC, ohmic load
❹ DC, L/R = 40 ms

Diagram

Service life reduction factor

Articles in set

Relay base - PLC-BPT- 24DC/21-21/H - 1012141

14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 2 PDT, Input voltage 24 V DC

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Articles in set

Single relay - REL-MR- 24DC/21-21/MS - 2987943

Plug-in miniature relay, with power contact, 2 PDTs, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2, input voltage 24 V DC

Classifications

eCl@ss

eCl@ss 5.0	27371601
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

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39122334

Approvals

Approvals

Approvals

UL Recognized / UL Listed / cUL Recognized / cUL Listed / EAC / cULus Recognized

Ex Approvals

Approval details

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Approvals

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

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

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

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

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

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

PHŒNIX CONTACT

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

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 6-PLC RD - 2966236

Single plug-in bridge, length: 6 mm, number of positions: 2, color: red

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

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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Controller board

System connection - PLC-V8L/FLK14/OUT - 2299660

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

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System connection - PLC-V8L/FLK14/OUT/M - 2304306

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

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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

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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

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

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

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

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 - ZB10,LGS:FORTL.ZAHLEN - 1053014

Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-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 size: 10.15 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

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

Relay Module - PLC-RPT- 24DC/21-21/MS - 2910519

Accessories

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 - ZB10/WH-100:UNBEDRUCKT - 5060883

Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001

Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.5 x 10.15 mm

Spare parts

Relay base - PLC-BPT- 24DC/21-21/H - 1012141

14 mm PLC basic terminal block without relay, for mounting on DIN rail NS 35/7,5, Push-in connection, 2 PDT, Input voltage 24 V DC

Single relay - REL-MR- 24DC/21-21/MS - 2987943

Plug-in miniature relay, with power contact, 2 PDTs, test button, mechanical switch position indicator, status LED, freewheeling diode, polarity A1+, A2, input voltage 24 V DC