Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

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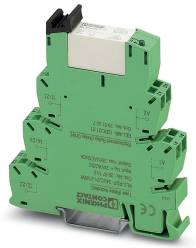

PLC-INTERFACE for railway applications, consisting of basic terminal block with spring-cage connection and plug-in miniature relay with power contact, range: 0.7 x U_N to 1.25 x U_N, temperature class TX: -40°C to +70°C, 2 changeover contacts, input voltage 24 V DC

Your advantages

- Optimum relay operation thanks to wide-range electronics
- Certified according to EN 50155
- Safe isolation according to DIN EN 50178 between coil and contact
- Vibration and shock resistance according to EN 50155
- Input voltage range of 0.7 to 1.25 x UN (1.4 x UN briefly)
- Temperature range from -40°C to +70°C (+85°C briefly)

Key Commercial Data

Packing unit	10 pc
GTIN	4 046356 154161
GTIN	4046356154161

Technical data

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C (Temperature class TX)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Coil side

Nominal input voltage U_N	24 V DC
Input voltage range in reference to U_N	0.7 ... 1.25
Typical input current at U_N	20 mA
Typical response time	5 ms
Typical release time	11 ms
Coil voltage	12 V DC

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Technical data

Coil side

Protective circuit	Bridge rectifier Bridge rectifier
	Free-wheeling diode Damping diode
	Surge protection
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED
Power dissipation for nominal condition	0.5 W

Contact side

Contact type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (Separating plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules.)
Minimum switching voltage	5 V (at 10 mA)
Min. switching current	10 mA (At 5 V)
Maximum inrush current	15 A (300 ms)
Limiting continuous current	6 A
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 250 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 250 V, AC15)

Connection data input side

Connection name	Coil side
Connection method	Spring-cage 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
Conductor cross section AWG	26 ... 14

Connection data output side

Connection name	Contact side
Connection method	Spring-cage connection
Stripping length	8 mm

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Technical data

Connection data output side

Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	26 ... 14

General

Test voltage	5 kV_{rms} (50 Hz, 1 min., winding/contact)
	2.5 kV_{rms} (50 Hz, 1 min., changeover contact/changeover contact)
Operating mode	100% operating factor
Flammability rating according to UL 94	V0 (Housing)
Mechanical service life	approx. 3x 10^7 cycles
Mounting position	any
Assembly instructions	In rows with zero spacing

Standards and Regulations

Connection in acc. with standard	CUL
Standards/regulations	EN 50155 (VDE 0115 part 200)
	EN 50178
	EN 61373
	EN 50121
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	III

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

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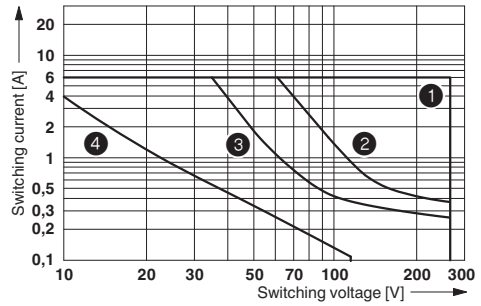
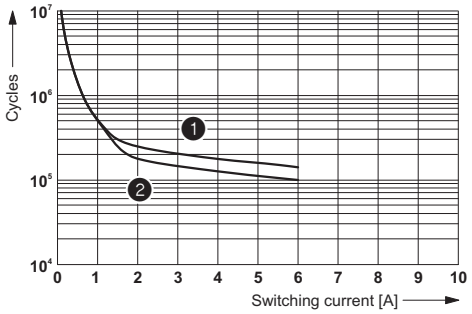
Diagram



1 AC, ohmic load
2 DC, ohmic load, contacts in series
3 DC, ohmic load
4 DC, L/R = 40 ms

Diagram

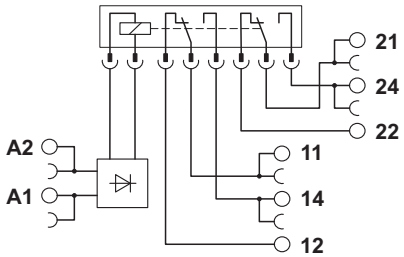


1 250 V AC, ohmic load (DC coils)
2 250 V AC, ohmic load (AC coils)

Electrical service life

Interrupting rating

Circuit diagram



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 9.0	27371601

ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	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

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Classifications

UNSPSC

UNSPSC 13.2	39122334
UNSPSC 19.0	39122334

Accessories

Accessories

Bridge

Continuous plug-in bridge - FBST 500-PLC RD - 2966786



Continuous plug-in bridge, color: red

Continuous plug-in bridge - FBST 500-PLC BU - 2966692



Continuous plug-in bridge, color: blue

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



Continuous plug-in bridge, color: gray

Single plug-in bridge - FBST 6-PLC RD - 2966236



Single plug-in bridge, color: red

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Accessories

Single plug-in bridge - FBST 6-PLC BU - 2966812



Single plug-in bridge, color: blue

Single plug-in bridge - FBST 6-PLC GY - 2966825



Single plug-in bridge, color: gray

Single plug-in bridge - FBST 8-PLC GY - 2967688



Single plug-in bridge, color: gray

Single plug-in bridge - FBST 14-PLC BK - 2967691



Single plug-in bridge, color: black

DIN rail

DIN rail, unperforated - NS 35/ 7,5 V2A UNPERF 2000MM - 0801377



DIN rail, unperforated, acc. to EN 60715, material: Stainless steel V2A, uncoated, Standard profile, color: silver

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Accessories

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

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Accessories

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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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 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 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

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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

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, Number of individual labels: 1000

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



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: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TM 12 - 0819194



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: 12 mm, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

Relay Module - PLC-RSP- 24UC/21-21/RW - 2987105

Accessories

Marker for terminal blocks - UCT-TM 12 - 0829144



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: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

Spare parts

Single relay - REL-MR- 12DC/21-21 - 2961257



Plug-in miniature power relay, with power contact, 2 changeover contacts, input voltage 12 V DC

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