

PLC-RPT- 24UC/21HC/RW - Relay module



2900324

<https://www.phoenixcontact.com/pc/products/2900324>

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PLC-INTERFACE for railway applications and high continuous currents, consisting of basic terminal block with Push-in connection and plug-in miniature relay, range: $0.7 \times U_N$ to $1.25 \times U_N$, temperature class TX: -40°C to $+70^{\circ}\text{C}$, 1 changeover contact, input voltage 24 V DC

Your advantages

- Optimum relay operation thanks to wide-range electronics
- Certified in accordance with EN 50155
- Vibration and shock resistance in accordance with EN 50155
- Safe isolation between coil and contact side
- Temperature range: -40°C ... $+70^{\circ}\text{C}$ (short-term 85°C)
- Input voltage range of 0.7 to $1.25 \times U_N$ ($1.4 \times U_N$ briefly)

Commercial data

Item number	2900324
Packing unit	10 pc
Minimum order quantity	1 pc
Product key	DK62BL
GTIN	4046356510073
Weight per piece (including packing)	66.08 g
Weight per piece (excluding packing)	66.08 g
Customs tariff number	85364190
Country of origin	DE

PLC-RPT- 24UC/21HC/RW - Relay module



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Technical data

Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Railway applications
Installation location	Attached to the vehicle body
Operating mode	100% operating factor
Mechanical service life	approx. 3×10^7 cycles

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

Data management status

Date of last data management	12.09.2025
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Electrical properties

Maximum power dissipation for nominal condition	0.48 W
Test voltage (Winding/contact)	5 kV _{rms} (50 Hz, 1 min., winding/contact)
Rated insulation voltage	250 V AC
Rated surge voltage	6 kV

Input data

Coil side

Nominal input voltage U_N	24 V DC
Input voltage range	20.2 V DC ... 33.6 V DC
Input voltage range in reference to U_N	0.7 ... 1.25
Nominal voltage (plugged-in electromechanical relay)	12 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	20 mA
Typical response time	5 ms
Typical release time	11 ms
Protective circuit	Bridge rectifier
	Surge protection; Freewheeling diode
	RCZ filter
	Wide-range electronics
Operating voltage display	Yellow LED

Output data

Switching

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Contact switching type	1 changeover contact
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	12 V (10 mA)
Limiting continuous current	10 A (With inserted bridge 2967691)
Maximum inrush current	30 A (300 ms)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	240 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 (24 V (DC13))
	0.2 A (220 V (DC13))
	6 A (230 V (AC 15))

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.14 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.14 mm ² ... 2.5 mm ²
	0.2 mm ² ... 2.5 mm ² (Single ferrule)
	2x 0.5 mm ² ... 1 mm ² (TWIN ferrule)
Conductor cross-section AWG	26 ... 14

Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay)	RT III (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C ... 70 °C (Temperature class TX)
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Approvals

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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Shipbuilding approval

Certificate	TAE0000196
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Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Shipbuilding data

Temperature	D
Humidity	A
Vibration	B/C
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive

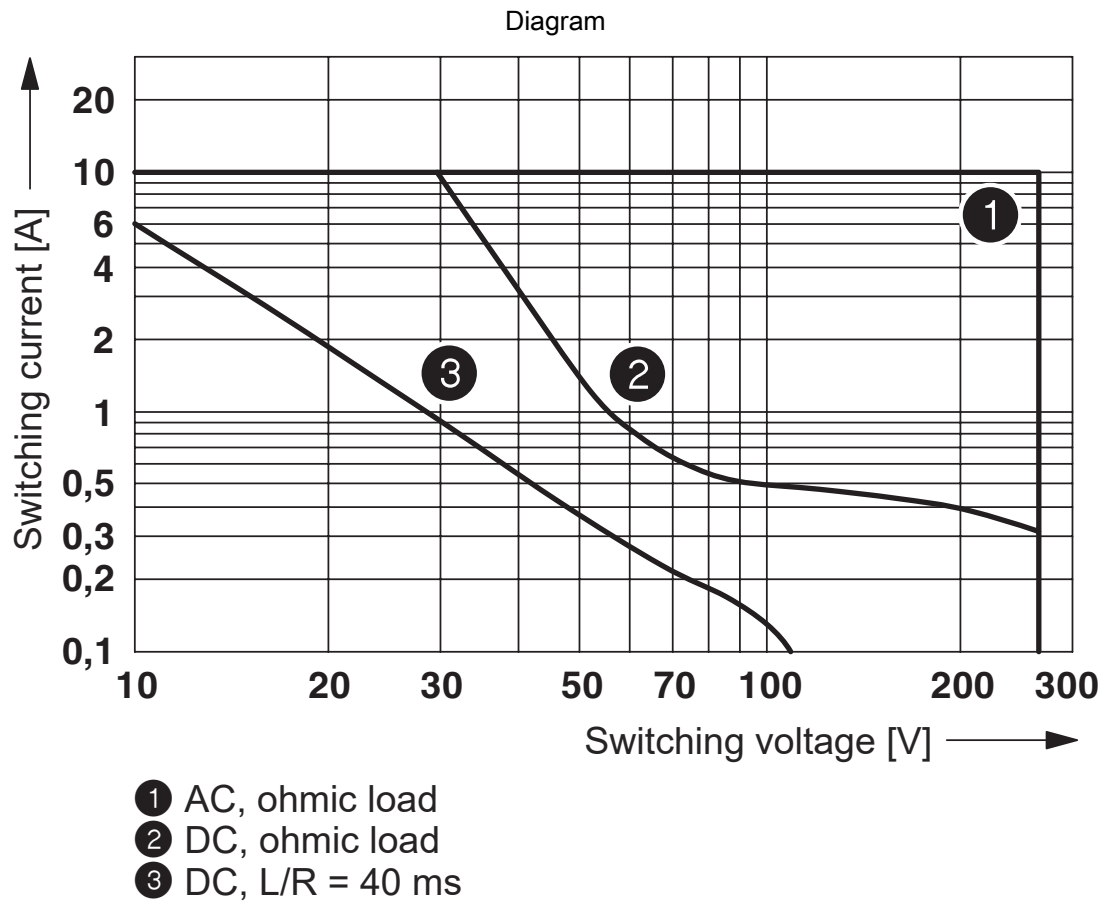
Standards and regulations

Standards/regulations	IEC 60947-5-1
	EN 50155 (VDE 0115 part 200)
	EN 61373
	EN 50121

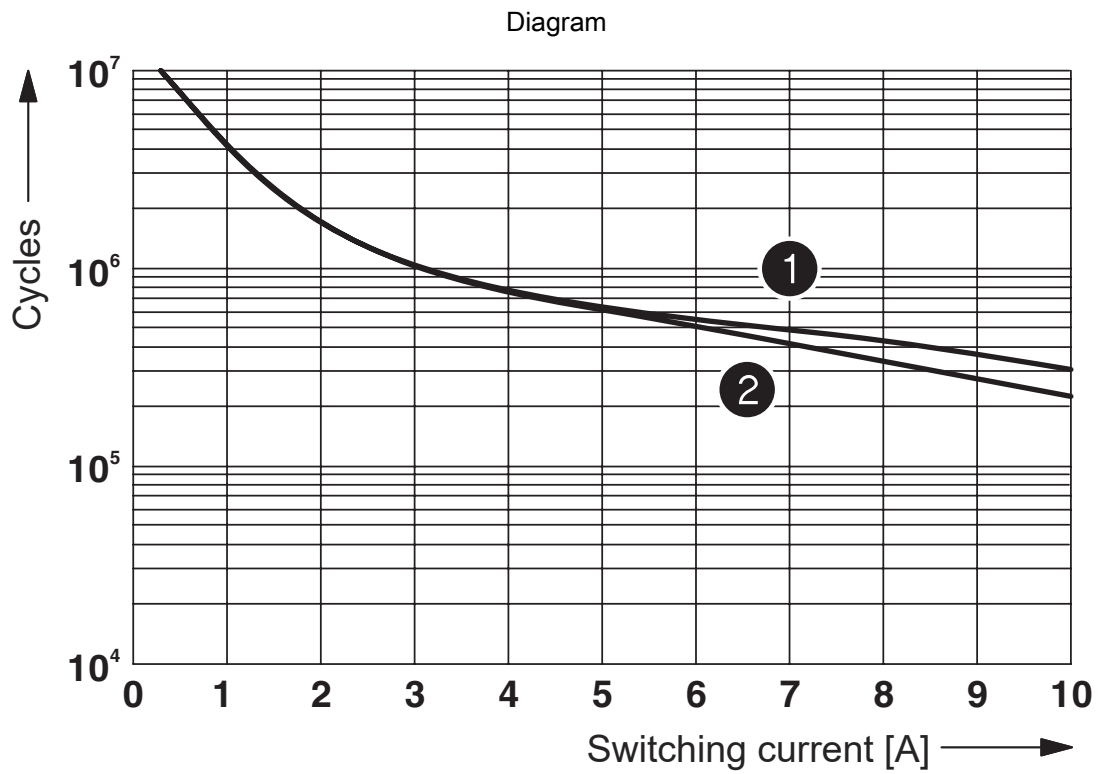
Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

Drawings



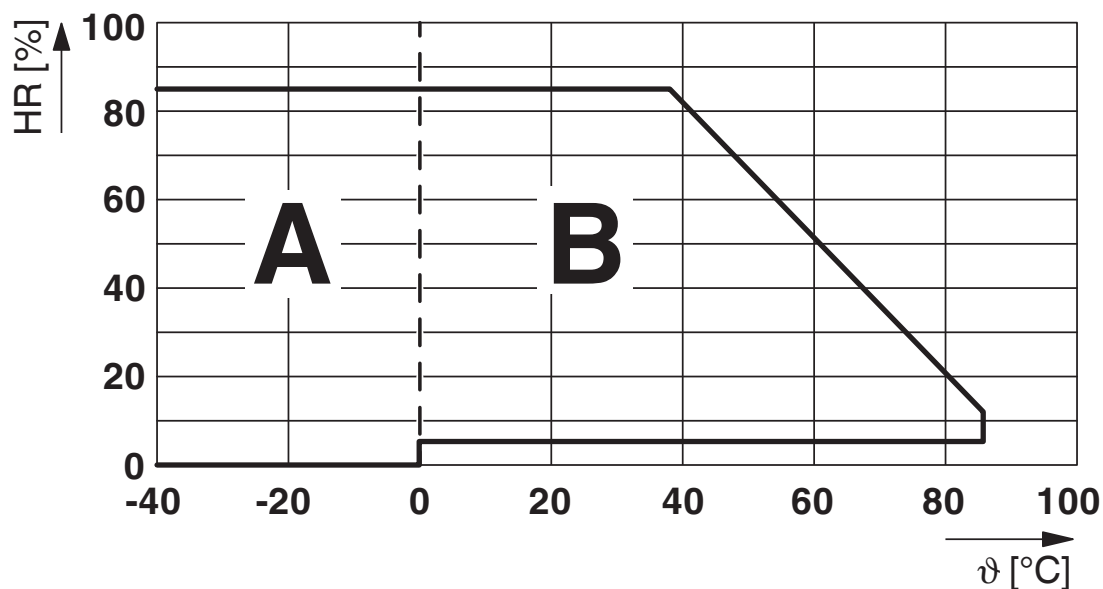
Interrupting rating



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

Electrical service life

Diagram



Permissible humidity for operation and storage.

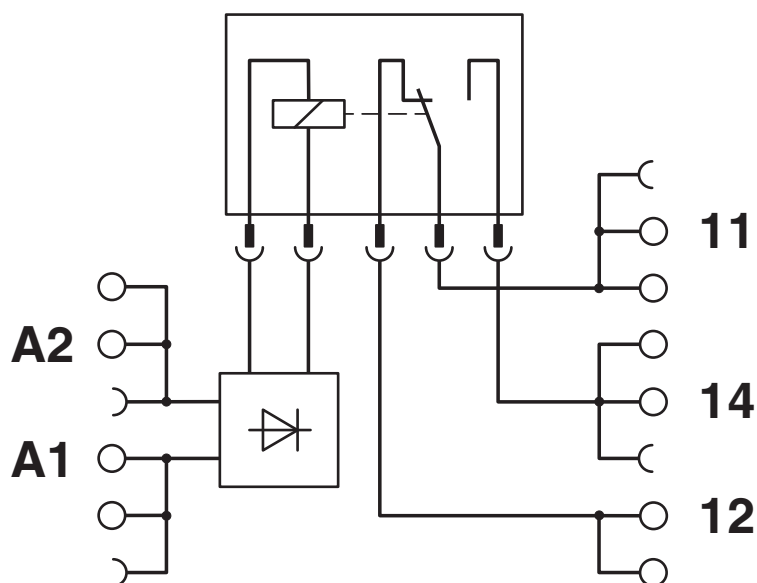
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^\circ\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^\circ\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^\circ\text{C}$.

Circuit diagram



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Approvals

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EAC

Approval ID: RU*C-DE.*08.B.00010



DNV GL

Approval ID: TAE0000196



cULus Listed

Approval ID: E140324



cUL Recognized

Approval ID: E238705



UL Recognized

Approval ID: E238705



UL Listed

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140

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Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	2b1ccc95-c2ec-4f55-b3eb-d56a30142133

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Accessories

ZB 10:UNBEDRUCKT - Zack marker strip

1053001

<https://www.phoenixcontact.com/pc/products/1053001>



Zack marker strip, Strip, white, unmarked, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

ZB 10 CUS - Zack marker strip

0824941

<https://www.phoenixcontact.com/pc/products/0824941>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

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ZB10,LGS:FORTL.ZAHLEN - Zack marker strip

1053014

<https://www.phoenixcontact.com/pc/products/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: latching, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

ZB10,QR:FORTL.ZAHLEN - Zack marker strip

1053027

<https://www.phoenixcontact.com/pc/products/1053027>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

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ZB10,LGS:L1-N,PE - Marker for terminal blocks

1053412

<https://www.phoenixcontact.com/pc/products/1053412>



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

ZB10,LGS:U-N - Marker for terminal blocks

1053438

<https://www.phoenixcontact.com/pc/products/1053438>



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, horizontal: U, V, W, N, GND, U, V, W, N, GND, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 10.15 mm

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UC-TM 10 - Marker for terminal blocks

0818069

<https://www.phoenixcontact.com/pc/products/0818069>



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 48, text field height: 10.5 mm, text field width: 9.6 mm

UC-TM 10 CUS - Marker for terminal blocks

0824605

<https://www.phoenixcontact.com/pc/products/0824605>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, Number of individual labels: 48, text field height: 10.5 mm, text field width: 9.6 mm

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UCT-TM 10 - Marker for terminal blocks

0829142

<https://www.phoenixcontact.com/pc/products/0829142>



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME 2.0, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, TOPMARK NEO, TOPMARK LASER, mounting type: latching, for terminal block width: 10.2 mm, Number of individual labels: 36, text field height: 9.6 mm, text field width: 8.9 mm

UCT-TM 10 CUS - Marker for terminal blocks

0829623

<https://www.phoenixcontact.com/pc/products/0829623>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, Number of individual labels: 36, text field height: 9.6 mm, text field width: 8.9 mm

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2900324

<https://www.phoenixcontact.com/pc/products/2900324>

ZB 12:UNPRINTED - Zack marker strip

0812120

<https://www.phoenixcontact.com/pc/products/0812120>



Zack marker strip, Strip, white, unmarked, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 12.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 12.15 mm

ZB 12 CUS - Zack marker strip

0824942

<https://www.phoenixcontact.com/pc/products/0824942>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 12.2 mm, Number of individual labels: 5, text field height: 12.15 mm, text field width: 10.5 mm

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ZB 12,LGS:L1-N,PE - Zack marker strip

0812146

<https://www.phoenixcontact.com/pc/products/0812146>



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: latching, for terminal block width: 12.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 12.15 mm

UC-TM 12 - Marker for terminal blocks

0819194

<https://www.phoenixcontact.com/pc/products/0819194>



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 12 mm, Number of individual labels: 40, text field height: 10.5 mm, text field width: 11.45 mm

PLC-RPT- 24UC/21HC/RW - Relay module



2900324

<https://www.phoenixcontact.com/pc/products/2900324>

UC-TM 12 CUS - Marker for terminal blocks

0824613

<https://www.phoenixcontact.com/pc/products/0824613>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 12 mm, Number of individual labels: 40, text field height: 10.5 mm, text field width: 11.45 mm

UCT-TM 12 - Marker for terminal blocks

0829144

<https://www.phoenixcontact.com/pc/products/0829144>



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME 2.0, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, TOPMARK NEO, TOPMARK LASER, mounting type: latching, for terminal block width: 12 mm, Number of individual labels: 30, text field height: 9.6 mm, text field width: 10.8 mm

PLC-RPT- 24UC/21HC/RW - Relay module

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UCT-TM 12 CUS - Marker for terminal blocks

0829630

<https://www.phoenixcontact.com/pc/products/0829630>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 12 mm, Number of individual labels: 30, text field height: 9.6 mm, text field width: 10.8 mm

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

0801733

<https://www.phoenixcontact.com/pc/products/0801733>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

PLC-RPT- 24UC/21HC/RW - Relay module



2900324

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

0801681

<https://www.phoenixcontact.com/pc/products/0801681>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver-colored

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

1204119

<https://www.phoenixcontact.com/pc/products/1204119>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module

2900324

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NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/pc/products/1204122>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

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

0801704

<https://www.phoenixcontact.com/pc/products/0801704>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module



2900324

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

1206421

<https://www.phoenixcontact.com/pc/products/1206421>



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

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

1206434

<https://www.phoenixcontact.com/pc/products/1206434>



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module



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NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/pc/products/0801762>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/pc/products/1206560>



DIN rail end piece, for DIN rail NS 35/7.5

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NS 35/15 PERF 2000MM - DIN rail perforated

1201730

<https://www.phoenixcontact.com/pc/products/1201730>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver-colored

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

1201714

<https://www.phoenixcontact.com/pc/products/1201714>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module



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

0806602

<https://www.phoenixcontact.com/pc/products/0806602>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: white

NS 35/15 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204135

<https://www.phoenixcontact.com/pc/products/1204135>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module



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

1201756

<https://www.phoenixcontact.com/pc/products/1201756>



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

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

1206599

<https://www.phoenixcontact.com/pc/products/1206599>



DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

PLC-RPT- 24UC/21HC/RW - Relay module



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

1206586

<https://www.phoenixcontact.com/pc/products/1206586>



DIN rail, unperforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

<https://www.phoenixcontact.com/pc/products/1201895>



DIN rail, unperforated, Pack of 10 (20 m), similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

PLC-RPT- 24UC/21HC/RW - Relay module

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NS 35/15 CAP - End cap

1206573

<https://www.phoenixcontact.com/pc/products/1206573>

DIN rail end piece, for DIN rail NS 35/15



NS 35/15-2,3 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201798

<https://www.phoenixcontact.com/pc/products/1201798>



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver-colored

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PLC-ATP BK - Separating plate

2966841

<https://www.phoenixcontact.com/pc/products/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

PLC-ESK GY - Power terminal block

2966508

<https://www.phoenixcontact.com/pc/products/2966508>



Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

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SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/pc/products/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

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

2961309

<https://www.phoenixcontact.com/pc/products/2961309>



Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, input voltage 12 V DC

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