Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

PLC-INTERFACE for railway applications, consisting of basic terminal block with Push-in 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 in accordance with EN 50155
- Safe isolation between coil and contact side
- Vibration and shock resistance in accordance with EN 50155
- Temperature range: -40 °C ... + 70 °C (short-term 85 °C)
- Input voltage range of 0.7 to 1.25 x UN (1.4 x UN briefly)

Commercial data

Item number	2900346
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK62BL
GTIN	4046356507509
Weight per piece (including packing)	62.82 g
Weight per piece (excluding packing)	64.11 g
Customs tariff number	85364190
Country of origin	DE

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

2900346

https://www.phoenixcontact.com/us/products/2900346

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. 3x 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

Electrical properties

Maximum power dissipation for nominal condition	0.48 W
Test voltage (Winding/contact)	5 kV_{rms} (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV_{rms} (50 Hz, 1 min., changeover contact/changeover 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	16.8 V DC ... 30 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

Contact switching 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 (10 mA)
Limiting continuous current	6 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (5 V)
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

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.14 mm² ... 2.5 mm²
Conductor cross-section flexible	0.14 mm² ... 2.5 mm²
	0.2 mm² ... 2.5 mm² (Single ferrule)
	2x 0.5 mm² ... 1 mm² (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

Approvals

CE

Certificate	CE-compliant

UKCA

Certificate	UKCA-compliant

Shipbuilding approval

Certificate	TAE0000196

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

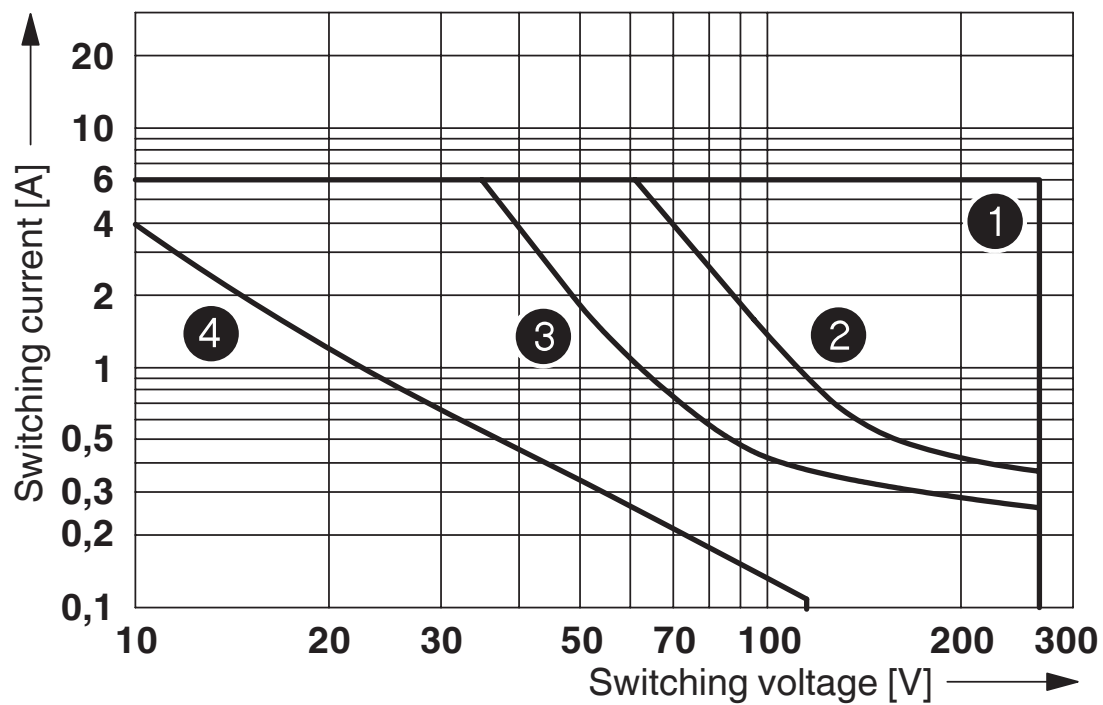|	
Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive

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

Diagram

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

Interrupting rating
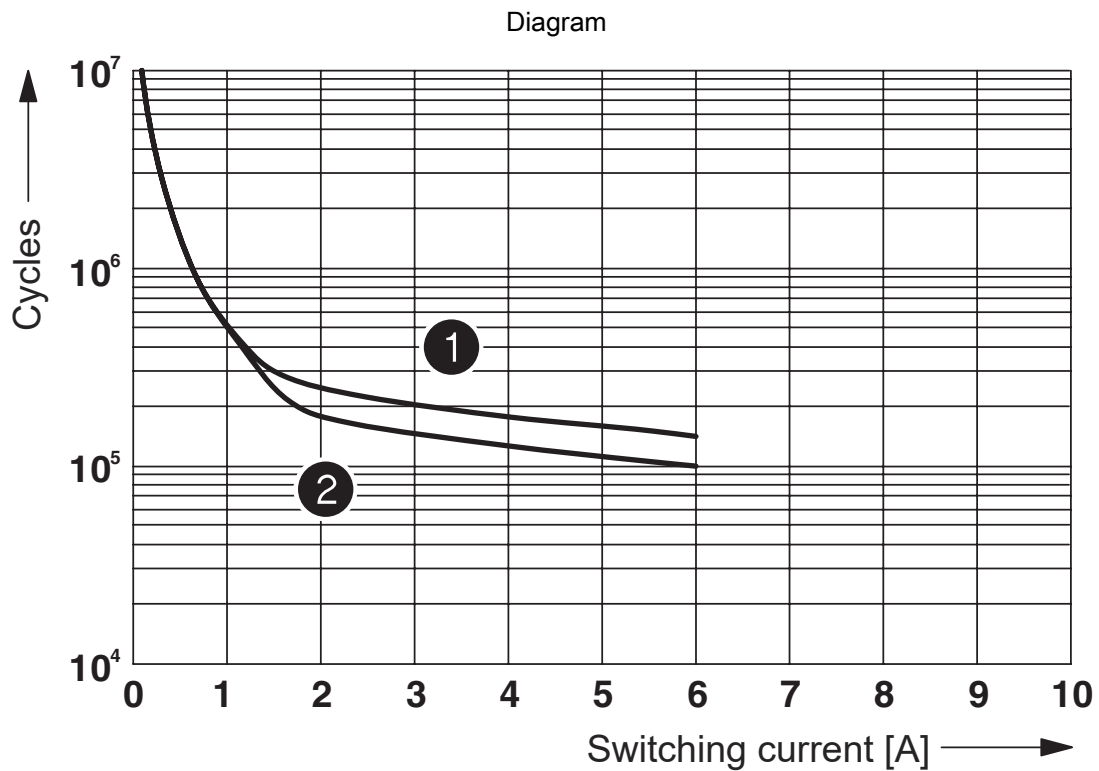
Diagram

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

Electrical service life

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

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 ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

Circuit diagram
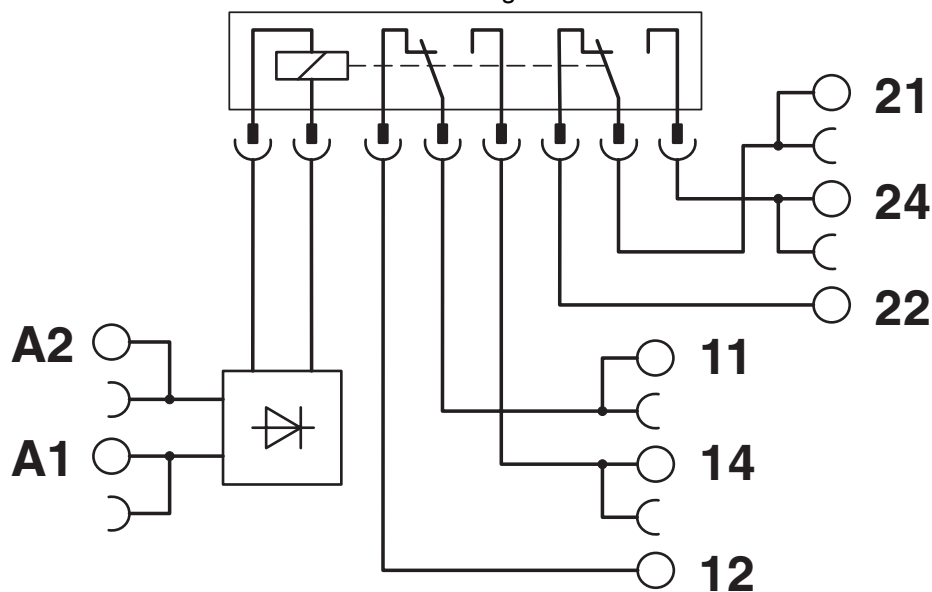
Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2900346

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

Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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	2f8caf65-c4c0-4d57-a772-762571601136

EF3.0 Climate Change

CO2e kg	0.726 kg CO2e

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

2900346

https://www.phoenixcontact.com/us/products/2900346

Accessories

ⓘ   Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786
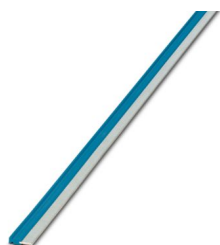
https://www.phoenixcontact.com/us/products/2966786

Continuous plug-in bridge, length: 500 mm, color: red

ⓘ Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

https://www.phoenixcontact.com/us/products/2966692

Continuous plug-in bridge, length: 500 mm, color: blue

ⓘ Max. current carrying capacity: 32 A

FBST 500-PLC GY - Continuous plug-in bridge

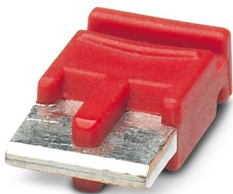2966838

https://www.phoenixcontact.com/us/products/2966838

Continuous plug-in bridge, length: 500 mm, color: gray

ⓘ Max. current carrying capacity: 32 A

FBST   6-PLC RD - Single plug-in bridge

2966236

https://www.phoenixcontact.com/us/products/2966236

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

ⓘ Max. current carrying capacity: 6 A

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

2900346

https://www.phoenixcontact.com/us/products/2900346

FBST 6-PLC BU - Single plug-in bridge

2966812

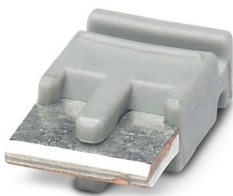https://www.phoenixcontact.com/us/products/2966812

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

ⓘ Max. current carrying capacity: 6 A

FBST 6-PLC GY - Single plug-in bridge

2966825

https://www.phoenixcontact.com/us/products/2966825

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

ⓘ Max. current carrying capacity: 6 A

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

FBST 8-PLC GY - Single plug-in bridge

Single plug-in bridge, number of positions: 2, length: 8 mm, color: gray

ⓘ Max. current carrying capacity: 6 A

FBST 14-PLC BK - Single plug-in bridge

Single plug-in bridge, number of positions: 2, length: 14 mm, color: black

ⓘ Max. current carrying capacity: 10 A

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

2900346

https://www.phoenixcontact.com/us/products/2900346

ZB 10:UNBEDRUCKT - Zack marker strip

1053001

https://www.phoenixcontact.com/us/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/us/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

ZB10,LGS:FORTL.ZAHLEN - Zack marker strip

1053014

https://www.phoenixcontact.com/us/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/us/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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

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

1053412

https://www.phoenixcontact.com/us/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/us/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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

UC-TM 10 - Marker for terminal blocks

0818069

https://www.phoenixcontact.com/us/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/us/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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

UCT-TM 10 - Marker for terminal blocks

0829142

https://www.phoenixcontact.com/us/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/us/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

ZB 12:UNPRINTED - Zack marker strip

0812120

https://www.phoenixcontact.com/us/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/us/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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

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

0812146

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

UC-TM 12 CUS - Marker for terminal blocks

0824613

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

UCT-TM 12 CUS - Marker for terminal blocks

0829630

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

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

0801681

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

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

1204122

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

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

1206421

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

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

0801762

https://www.phoenixcontact.com/us/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/us/products/1206560

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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

NS 35/15 PERF 2000MM - DIN rail perforated

1201730

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

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

0806602

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

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

1201756

https://www.phoenixcontact.com/us/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/us/products/1206599

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

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

1206586

https://www.phoenixcontact.com/us/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/us/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/21-21/RW - Relay module

2900346

https://www.phoenixcontact.com/us/products/2900346

NS 35/15 CAP - End cap

1206573

https://www.phoenixcontact.com/us/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/us/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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

PLC-ATP BK - Separating plate

2966841

https://www.phoenixcontact.com/us/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/us/products/2966508

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

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

2900346

https://www.phoenixcontact.com/us/products/2900346

SZF 1-0,6X3,5 - Screwdriver

1204517

https://www.phoenixcontact.com/us/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/21-21 - Single relay

2961257

https://www.phoenixcontact.com/us/products/2961257

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