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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

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14 mm PLC basic terminal block with protection against interference currents/voltages on the control side, with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, for high continuous currents, 1 changeover contact, input voltage 120 V AC

Your advantages

- High relay release voltage
- Resistant to interference currents

Commercial data

Item number	2980432
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	CK623M
Product key	CK623M
Catalog page	Page 389 (C-5-2019)
GTIN	4017918921224
Weight per piece (including packing)	66.5 g
Weight per piece (excluding packing)	58.88 g
Customs tariff number	85364190
Country of origin	DE

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PLC-BSC-120UC/21HC/SO46 - Relay base

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Technical data

Notes

Utilization restriction

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

Product properties

Product type	Relay socket
Product family	PLC-INTERFACE
Application	Filter to prevent interference
Operating mode	100% operating factor
Compatible components	Miniature relay, REL-MR-110DC/21HC

Insulation characteristics

Pollution degree	3

Electrical properties

Protective circuit	Bridge rectifier; Bridge rectifier
	RCZ filter; RCZ filter

Input data

Nominal input voltage U_N	120 V AC
	The nominal voltage of the plug-on electromechanical relay or solid-state relay (see necessary accessories) deviates from the nominal input voltage of the base with integrated upstream circuit
Input voltage range in reference to U_N	0.85 ... 1.4 (at 20 °C)
Typical input current at U_N	8.5 mA
Typical response time	7 ms
Typical release time	10 ms

Relay assembly

Nominal input voltage U_N	120 V AC
Input voltage range in reference to U_N	0.85 ... 1.4
Typical input current at U_N	8.5 mA (50 Hz)
	9.5 mA (60 Hz)
Typical response time	8 ms
Typical release time	15 ms
Typical release voltage	45 V AC
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Optocoupler assembly

Operating voltage display	Yellow LED

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Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Output data

Compatible components	Miniature relay, REL-MR-110DC/21HC

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
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 ... 1.5 mm² (TWIN ferrule)
Conductor cross section AWG	26 ... 14
Tightening torque	0.6 Nm ... 0.8 Nm

Signaling

Status display	LED

Dimensions

Width	14 mm
Height	80 mm
Depth	94 mm

Material specifications

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

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

CE

Certificate	CE-compliant

UKCA

Certificate	UKCA-compliant

Shipbuilding approval

Certificate	TAE0000196

Corrosive gas test

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PLC-BSC-120UC/21HC/SO46 - Relay base

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

DNV GL 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

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

Mounting

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

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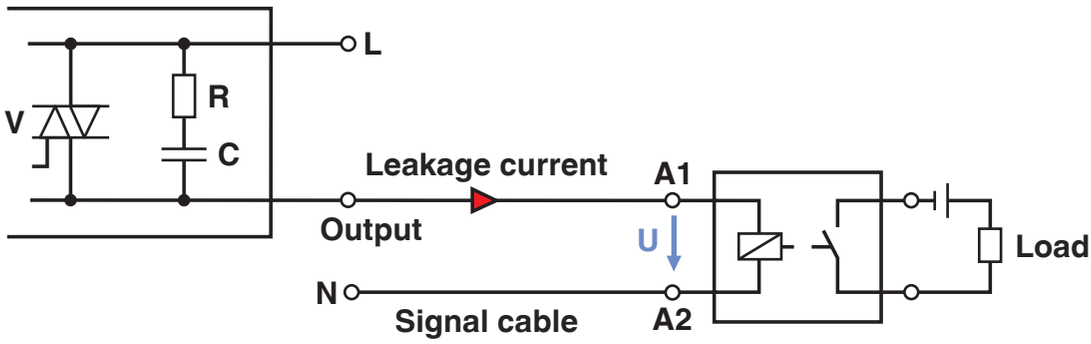
PLC-BSC-120UC/21HC/SO46 - Relay base

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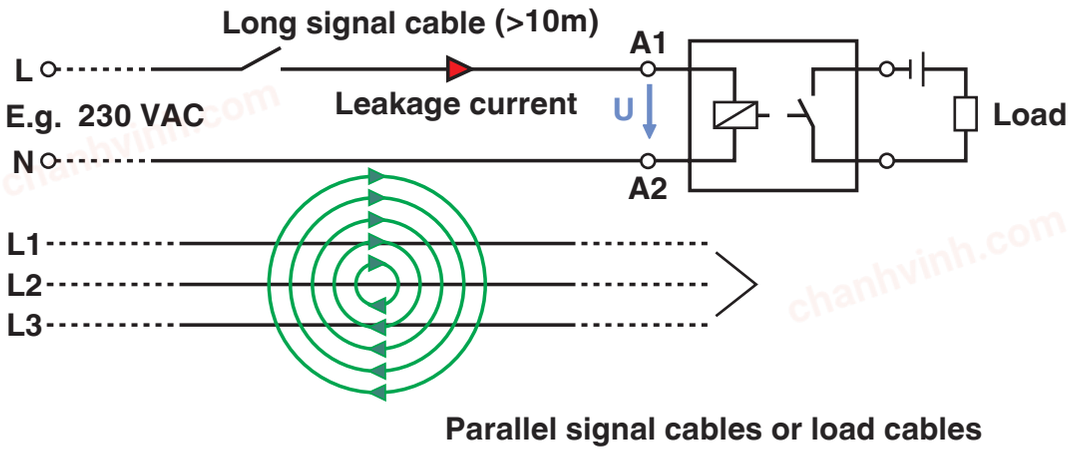
Drawings

Application drawing



Occurrence of interference signals
Scenario 1: controller - AC output card

Application drawing



Occurrence of interference signals
Scenario 2: long signal cables

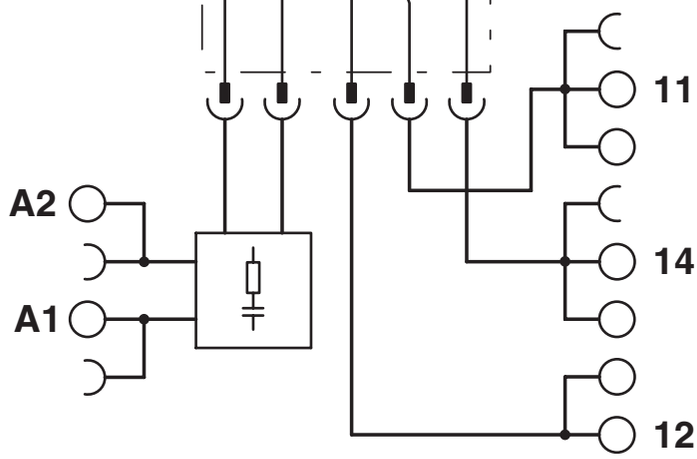
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Circuit diagram



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/gb/products/2980432

cUL Recognized
Approval ID: FILE E 238705

UL Recognized
Approval ID: FILE E 238705

EAC
Approval ID: RU D-DE.B*00573/18

DNV GL
Approval ID: TAE0000196

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27371603
ECLASS-12.0	27371603
ECLASS-13.0	27371603

ETIM

ETIM 9.0	EC001456

UNSPSC

UNSPSC 21.0	39122300

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PLC-BSC-120UC/21HC/SO46 - Relay base

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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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	c1a16e73-4005-4969-8ce3-4400c56baf56

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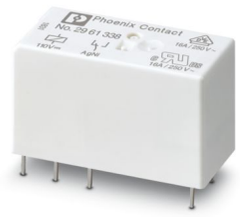
https://www.phoenixcontact.com/gb/products/2980432

Mandatory accessories

REL-MR-110DC/21HC - Single relay

2961338

https://www.phoenixcontact.com/gb/products/2961338



Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, input voltage 110 V DC

Accessories

Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786

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



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

Max. current carrying capacity: 32 A

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PLC-BSC-120UC/21HC/SO46 - Relay base

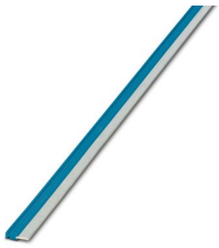
2980432

https://www.phoenixcontact.com/gb/products/2980432

FBST 500-PLC BU - Continuous plug-in bridge

2966692

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



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

Max. current carrying capacity: 32 A

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

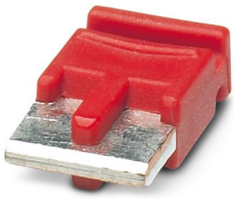
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FBST 6-PLC RD - Single plug-in bridge

2966236

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

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



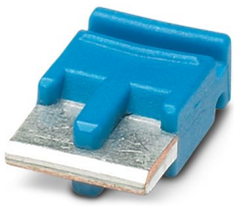
Max. current carrying capacity: 6 A

FBST 6-PLC BU - Single plug-in bridge

2966812

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

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



Max. current carrying capacity: 6 A

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

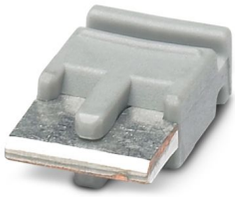
https://www.phoenixcontact.com/gb/products/2980432

FBST 6-PLC GY - Single plug-in bridge

2966825

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

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



Max. current carrying capacity: 6 A

FBST 8-PLC GY - Single plug-in bridge

2967688

https://www.phoenixcontact.com/gb/products/2967688

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



Max. current carrying capacity: 6 A

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

FBST 14-PLC BK - Single plug-in bridge

2967691

https://www.phoenixcontact.com/gb/products/2967691

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



Max. current carrying capacity: 10 A

PLC-ATP BK - Separating plate

2966841

https://www.phoenixcontact.com/gb/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

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

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PLC-ESK GY - Power terminal block

2966508

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



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

ZB 10:UNBEDRUCKT - Zack marker strip

1053001

https://www.phoenixcontact.com/gb/products/1053001



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

ZB 10 CUS - Zack marker strip

0824941

https://www.phoenixcontact.com/gb/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, lettering field size: 10,15 x 10,5 mm, Number of individual labels: 10

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

1053412

https://www.phoenixcontact.com/gb/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: snapped, for terminal block width: 10.2 mm, lettering field size: 10,15 x 10,5 mm, Number of individual labels: 10

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

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

1053438

https://www.phoenixcontact.com/gb/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: snapped, for terminal block width: 10.2 mm, lettering field size: 10,15 x 10,5 mm, Number of individual labels: 10

UC-TM 10 - Marker for terminal blocks

0818069

https://www.phoenixcontact.com/gb/products/0818069



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

UC-TM 10 CUS - Marker for terminal blocks

0824605

https://www.phoenixcontact.com/gb/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, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

UCT-TM 10 - Marker for terminal blocks

0829142

https://www.phoenixcontact.com/gb/products/0829142



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: snapped, for terminal block width: 10.2 mm, lettering field size: 8.9 x 9.6 mm, Number of individual labels: 36

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UCT-TM 10 CUS - Marker for terminal blocks

0829623

https://www.phoenixcontact.com/gb/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, lettering field size: 8.9 x 9.6 mm, Number of individual labels: 36

ZB 12:UNPRINTED - Zack marker strip

0812120

https://www.phoenixcontact.com/gb/products/0812120



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

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PLC-BSC-120UC/21HC/SO46 - Relay base

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ZB 12 CUS - Zack marker strip

0824942

https://www.phoenixcontact.com/gb/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, lettering field size: 10.5 x 12.15 mm, Number of individual labels: 5

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

0812146

https://www.phoenixcontact.com/gb/products/0812146



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

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UC-TM 12 - Marker for terminal blocks

0819194

https://www.phoenixcontact.com/gb/products/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: snapped, for terminal block width: 12 mm, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

UC-TM 12 CUS - Marker for terminal blocks

0824613

https://www.phoenixcontact.com/gb/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, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

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PLC-BSC-120UC/21HC/SO46 - Relay base

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UCT-TM 12 - Marker for terminal blocks

0829144

https://www.phoenixcontact.com/gb/products/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: snapped, for terminal block width: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

UCT-TM 12 CUS - Marker for terminal blocks

0829630

https://www.phoenixcontact.com/gb/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, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

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PLC-BSC-120UC/21HC/SO46 - Relay base

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

0801733

https://www.phoenixcontact.com/gb/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

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

0801681

https://www.phoenixcontact.com/gb/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

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

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

1204119

https://www.phoenixcontact.com/gb/products/1204119



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

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

1204122

https://www.phoenixcontact.com/gb/products/1204122



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

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PLC-BSC-120UC/21HC/SO46 - Relay base

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

0801704

https://www.phoenixcontact.com/gb/products/0801704



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

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

1206421

https://www.phoenixcontact.com/gb/products/1206421



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

PLC-BSC-120UC/21HC/SO46 - Relay base

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

1206434

https://www.phoenixcontact.com/gb/products/1206434



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

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

0801762

https://www.phoenixcontact.com/gb/products/0801762



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

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PLC-BSC-120UC/21HC/SO46 - Relay base

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NS 35/ 7,5 CAP - End cap

1206560

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

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



NS 35/15 PERF 2000MM - DIN rail perforated

1201730

https://www.phoenixcontact.com/gb/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

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PLC-BSC-120UC/21HC/SO46 - Relay base

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

1201714

https://www.phoenixcontact.com/gb/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

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

0806602

https://www.phoenixcontact.com/gb/products/0806602



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

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PLC-BSC-120UC/21HC/SO46 - Relay base

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

1204135

https://www.phoenixcontact.com/gb/products/1204135



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

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

1201756

https://www.phoenixcontact.com/gb/products/1201756



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

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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

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

1206599

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



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

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

1206586

https://www.phoenixcontact.com/gb/products/1206586



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

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PLC-BSC-120UC/21HC/SO46 - Relay base

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https://www.phoenixcontact.com/gb/products/2980432

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

1201895

https://www.phoenixcontact.com/gb/products/1201895



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

NS 35/15 CAP - End cap

1206573

https://www.phoenixcontact.com/gb/products/1206573

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



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PLC-BSC-120UC/21HC/SO46 - Relay base

2980432

https://www.phoenixcontact.com/gb/products/2980432

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

1201798

https://www.phoenixcontact.com/gb/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

SZF 1-0,6X3,5 - Screwdriver

1204517

https://www.phoenixcontact.com/gb/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

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