

2966197

https://www.phoenixcontact.com/us/products/2966197

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PLC-INTERFACE, consisting of basic terminal block PLC-BSC.../21 with screw connection and plug-in miniature relay with power contact, for assembly on DIN rail NS 35/7,5, 1 changeover contact, input voltage 120 V AC/110 V DC

#### Your advantages

- · Slim design
- · Efficient connection to system cabling using V8 adapter
- · Safe isolation between coil and contact side
- · RT III sealed relay
- · Integrated input circuit and interference suppression circuit
- Functional plug-in bridges

#### Commercial data

Item number	2966197
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C462
Product key	CK6226
Catalog page	Page 364 (C-5-2019)
GTIN	4017918130718
Weight per piece (including packing)	39.88 g
Weight per piece (excluding packing)	33.16 g
Customs tariff number	85364900
Country of origin	DE



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#### Technical data

#### Notes

Separating plate PLC-ATP must 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
FB31 0-PLG 01 FB31 300

#### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Universal
Operating mode	100% operating factor
Mechanical service life	2x 10 <sup>7</sup> cycles

#### Electrical properties

Overvoltage category

Degree of pollution

Maximum power dissipation for nominal condition	0.42 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)
Insulation characteristics: Coil/contact	
Rated insulation voltage	250 V
Rated impulse withstand voltage	6 kV

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#### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	120 V AC
	110 V DC
Input voltage range	93.6 V AC 168 V AC (20 °C)
	85.8 V DC 154 V DC (20 °C)
()	60 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	3.5 mA (at U <sub>N</sub> = 120 V AC)
	3 mA (at U <sub>N</sub> = 110 V DC)
Typical response time	6 ms
Typical release time	15 ms
Protective circuit	Bridge rectifier; Bridge rectifier
Operating voltage display	Yellow LED

#### Output data

#### Switching

Contact switching type		
Contact switching type	Contact switching type	1 changeover contact



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Type of switch contact	Single contact
Contact material	AgSnO
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 orFBST 500)
Minimum switching voltage	5 V (100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)
Min. switching current	10 mA (12 V)
Short-circuit current	200 A (conditional short-circuit current)
Interrupting rating (ohmic load) max.	140 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)
Output fuse	4 A gL/gG NEOZED
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

#### 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 mm <sup>2</sup> 2.5 mm <sup>2</sup> (Single ferrule)
	2x 0.5 mm <sup>2</sup> 1.5 mm <sup>2</sup> (TWIN ferrule)
Conductor cross section AWG	26 14
Tightening torque	0.6 Nm 0.8 Nm

#### Dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

#### Material specifications

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



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#### Environmental and real-life conditions

Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C 55 °C
Ambient temperature (storage/transport)	-40 °C 85 °C

#### Approvals

#### CE

Certificate	CE-compliant
JKCA	
Certificate	UKCA-compliant
Shipbuilding approval	
Certificate	TAE0000196
Corrosive gas test	
Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60
DNV GL data	
Temperature	D
Humidity	A
Vibration	B/C
EMC	В
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

#### Standards and regulations

#### Mounting

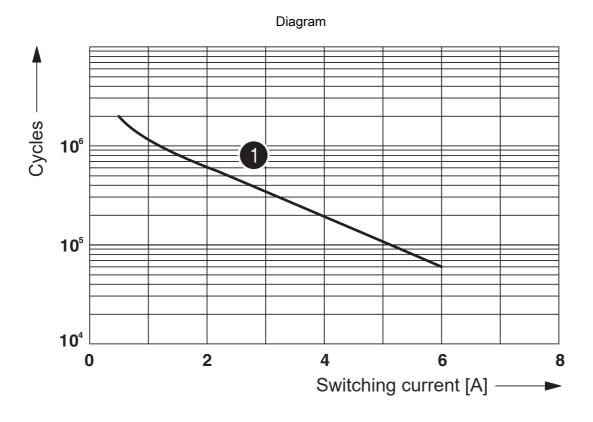
Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any



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### Drawings



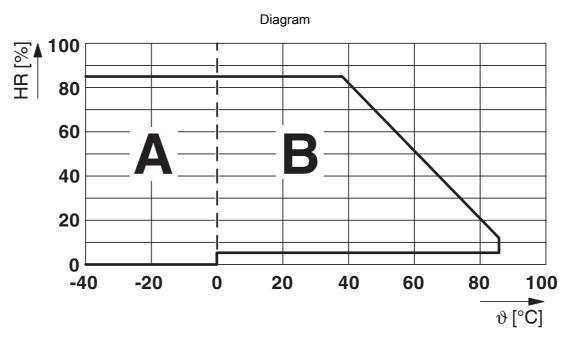
1 250 V AC, ohmic load

Electrical service life



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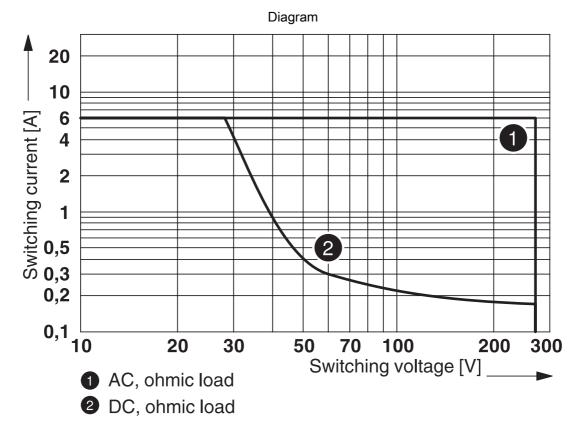
Permissible humidity for operation and storage.

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.

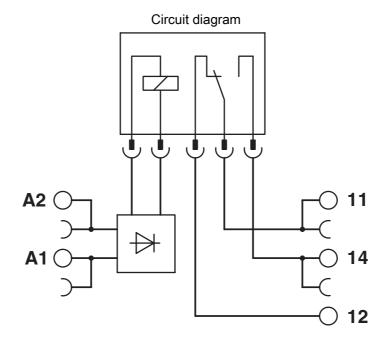


Interrupting rating



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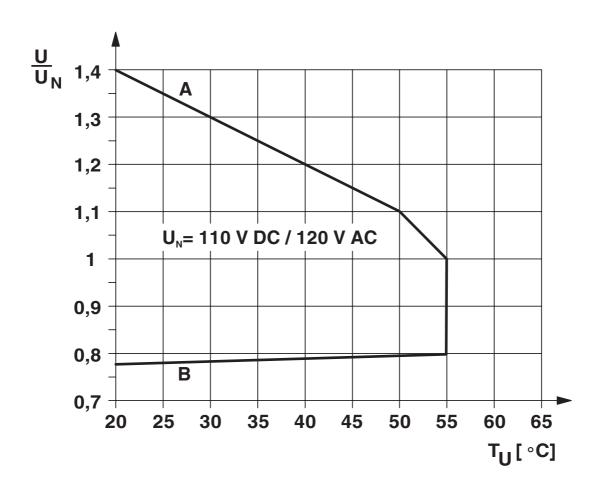




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# Curve A Maximum permissible continuous voltage $U_{max}$ with limiting continuous current on the contact side (see relevant technical data) Curve B

Minimum permissible operate voltage  $\mathbf{U}_{\mathrm{op}}$  after pre-excitation (see relevant technical data)



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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2966197



cUL Recognized

Approval ID: FILE E 238705



**UL Recognized** 

Approval ID: FILE E 238705



EAC

Approval ID: TR\_TS\_D\_00573\_c



**DNV GL** 

Approval ID: TAE0000196



EAC

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



**UL Listed** 

Approval ID: FILE E 172140



cUL Listed

Approval ID: FILE E 172140



cULus Listed

Approval ID: E140324

cULus Recognized

**cULus Listed** 



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### Classifications

UNSPSC 21.0

#### **ECLASS**

	ECLASS-11.0	27371601		
	ECLASS-12.0	27371601		
	ECLASS-13.0	27371601		
ETIM				
	ETIM 9.0	EC001437		
UNSPSC				

39122300



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### Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-l
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	80d809fa-193f-469a-9c2d-e1d447d87ad2



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#### 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

1 Max. current carrying capacity: 32 A



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#### 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

1 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



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#### 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

1 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



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

2967688

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

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



Max. current carrying capacity: 6 A

#### PLC-FA-5X20 - Fuse adapter

1186510

https://www.phoenixcontact.com/us/products/1186510



Safety plug adapter for use on a 6.2 mm PLC basic terminal block. For  $5 \times 20$  mm fuses. Operating voltage: Universal. Without fuse failure indication.



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#### PLC-FA-I-5X20-12-24UC - Fuse adapter

1186499

https://www.phoenixcontact.com/us/products/1186499



Safety plug adapter for use on a 6.2 mm PLC basic terminal block. For  $5 \times 20$  mm fuses. Operating voltage: 12 ... 24 V AC/DC. With LED for fuse failure indication.

#### PLC-FA-I-5X20-120-230UC - Fuse adapter

1186508

https://www.phoenixcontact.com/us/products/1186508



Safety plug adapter for use on a 6.2 mm PLC basic terminal block. For 5 x 20 mm fuses. Operating voltage: 120  $\dots$  230 V AC/DC. With LED for fuse failure indication.



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#### ZB 6:UNBEDRUCKT - Zack marker strip

1051003

https://www.phoenixcontact.com/us/products/1051003



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

#### ZB 6 CUS - Zack marker strip

0824992

https://www.phoenixcontact.com/us/products/0824992



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10



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#### ZB 6,LGS:FORTL.ZAHLEN - Zack marker strip

#### 1051016

https://www.phoenixcontact.com/us/products/1051016



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers  $1\dots10$ ,  $11\dots20$ , etc. up to  $491\dots500$ , mounting type: snapped, for terminal block width: 6.2 mm, lettering field size:  $6.15\times10.5$  mm, Number of individual labels: 10

#### ZB 6,QR:FORTL.ZAHLEN - Zack marker strip

#### 1051029

https://www.phoenixcontact.com/us/products/1051029



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1  $\dots$  10, 11  $\dots$  20, etc. up to 491  $\dots$  500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6. 15 x 10.5 mm, Number of individual labels: 10



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#### ZB 6,LGS:GLEICHE ZAHLEN - Zack marker strip

#### 1051032

https://www.phoenixcontact.com/us/products/1051032



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: Identical numbers 1 or 2, etc. up to 100, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

#### ZB 6,LGS:L1-N,PE - Marker for terminal blocks

#### 1051414

https://www.phoenixcontact.com/us/products/1051414



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: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10



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#### ZB 6,LGS:U-N - Marker for terminal blocks

1051430

https://www.phoenixcontact.com/us/products/1051430



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: U, V, W, N, GND, U, V, W, N, GND, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10. 5 mm, Number of individual labels: 10

#### UC-TM 6 - Marker for terminal blocks

0818085

https://www.phoenixcontact.com/us/products/0818085



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: 6.2 mm, lettering field size:  $5.6 \times 10.5$  mm, Number of individual labels: 80



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#### UC-TM 6 CUS - Marker for terminal blocks

#### 0824589

https://www.phoenixcontact.com/us/products/0824589



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

#### UCT-TM 6 - Marker for terminal blocks

#### 0828736

https://www.phoenixcontact.com/us/products/0828736



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60



https://www.phoenixcontact.com/us/products/2966197



#### UCT-TM 6 CUS - Marker for terminal blocks

#### 0829602

https://www.phoenixcontact.com/us/products/0829602



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: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

#### 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



https://www.phoenixcontact.com/us/products/2966197



#### 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

#### 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



https://www.phoenixcontact.com/us/products/2966197



#### 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

#### 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



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#### 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

#### 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



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#### 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





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

1201730

https://www.phoenixcontact.com/us/products/1201730

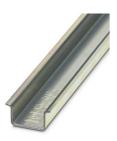


DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

#### 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



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

0806602

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

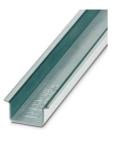


DIN rail perforated, Pack of 25 (50 m), similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white

#### 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



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#### 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

#### 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



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#### 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

#### 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



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#### 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



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#### 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



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#### 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:  $0.6 \times 3.5 \times 100$  mm, 2-component grip, with non-slip grip

#### REL-MR- 60DC/21 - Single relay

2961118

https://www.phoenixcontact.com/us/products/2961118



Plug-in miniature power relay, with power contact, 1 changeover contact, input voltage 60 V DC

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com