

2902956

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PLC-INTERFACE, consisting of DIN rail-mountable basic terminal block with screw connection and plug-in miniature relay with power contact, 1 changeover contact, input voltage: 120 V AC/110 V DC, UL/cUL: approved for use in Ex Zone Class I, Div. 2 and ATEX (Zone 2)

#### Commercial data

Item number	2902956
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	CK61B2
Catalog page	Page 412 (C-7-2015)
GTIN	4046356957595
Weight per piece (including packing)	42.54 g
Weight per piece (excluding packing)	31.06 g
Customs tariff number	85364900
Country of origin	DE



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#### Technical data

#### Product properties

Product type	Relay Module
Application	Class I, Division 2
Operating mode	100% operating factor
Mechanical service life	2x 10 <sup>7</sup> cycles
Data management status	
Date of last data management	25.04.2023
Article revision	03
Insulation characteristics: Standards/regulations	
Overvoltage category	III
Pollution degree	3

#### Electrical properties

Maximum power dissipation for nominal condition	0.42 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

#### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	120 V AC
	110 V DC
Input voltage range	93.6 V AC/DC 168 V AC/DC
Typical input current at U <sub>N</sub>	$3.5 \text{ mA } (U_N = 120 \text{ V AC})$
	3 mA (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	1 changeover contact
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 (at 100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)



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Min. switching current	10 mA (at 12 V)
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)
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 mm² 2.5 mm² (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

Flammability rating according to UL 94	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)	-20 °C 60 °C (UL)
	-40 °C 60 °C (ATEX / IECEx)
Ambient temperature (storage/transport)	-40 °C 85 °C

#### Approvals

CE

UE .	
Identification	CE-compliant



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ATEX	
Identification	
Certificate	IBExU16ATEXB015 X
IECEx	
Identification	Ex ec nC IIC T4 Gc
Certificate	IECEx IBE 16.0029X
UL, USA	
Identification	Class I, Zone 2, AEx nA nC IIC T6
UL, USA/Canada	

Class I, Div. 2, Groups A, B, C, D

Class I, Zone 2, Ex nA nC IIC Gc T6 X

#### Standards and regulations

#### Standards/regulations

Identification

UL, Canada

Identification

Standards/regulations	IEC 60664
	EN 50178
	EN 60079-0, -7, -15

#### Mounting

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

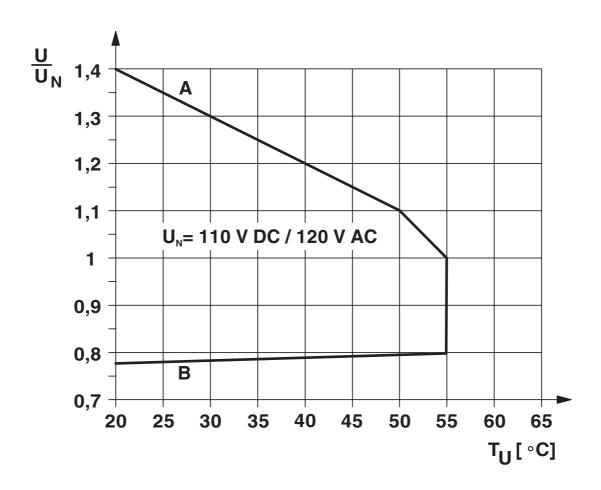


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### **Drawings**

Diagram



### Curve A

Maximum permissible continuous voltage U<sub>max</sub> with limiting continuous current on the contact side (see relevant technical data)

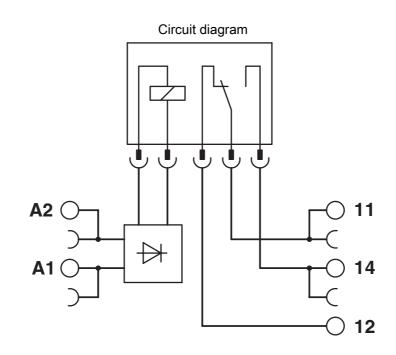
#### Curve B

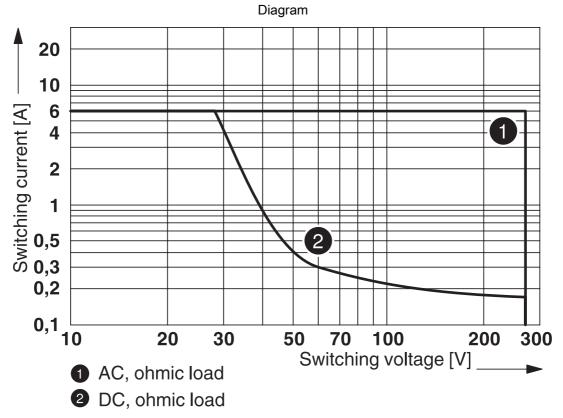
Minimum permissible operate voltage  $\mathbf{U}_{\mathrm{op}}$  after pre-excitation (see relevant technical data)



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Interrupting rating



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### Classifications

#### **ECLASS**

ECLASS-11.0 27371601



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### Environmental product compliance

#### 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.)	No substance above 0.1 wt%



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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

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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

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



1 Max. current carrying capacity: 6 A

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

0801377

https://www.phoenixcontact.com/us/products/0801377



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Stainless steel V2A, uncoated, Standard profile, color: silver



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#### 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

#### 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



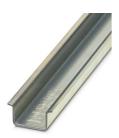
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#### NS 35/15 UNPERF 2000MM - DIN rail, unperforated

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

#### 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 35/15-2,3 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

#### 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



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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 35/7,5 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



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#### 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-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



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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

#### 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



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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  $\dots$  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

#### ZB 6/WH-100:UNBEDRUCKT - Zack marker strip

#### 5060935

https://www.phoenixcontact.com/us/products/5060935



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: 1000



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

0818085

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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 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



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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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