RIF-0-RSC-12DC/ 1AU - Relay Module

2903365

https://www.phoenixcontact.com/us/products/2903365

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Preassembled relay module with screw connection, consisting of: relay base with ejector and multi-layer gold contact relay. Contact switching type: 1 N/O contact. Input voltage: 12 V DC

Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

Commercial data

Item number	2903365
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C465
Product key	CK651G
Catalog page	Page 321 (C-5-2019)
GTIN	4046356732932
Weight per piece (including packing)	26.81 g
Weight per piece (excluding packing)	26.81 g
Customs tariff number	85364110
Country of origin	CZ

Set consists of

RIF-0-BSC/ 1 - Relay base

2901872

https://www.phoenixcontact.com/us/products/2901872

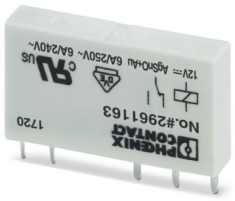


RIF-0... relay base, for miniature power relay with 1 N/O contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

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

2961163

https://www.phoenixcontact.com/us/products/2961163



Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

Technical data

Product properties

Product type	Relay Module
Product family	RIFLINE complete
Application	Universal
Operating mode	100% operating factor
Mechanical service life	approx. 2x 10^7 cycles

Insulation characteristics

Insulation	safe isolation

Insulation characteristics

Insulation	safe isolation
Overvoltage category	III
Pollution degree	2

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.19 W
Test voltage (Winding/contact)	4 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	12 V DC
Input voltage range	9.6 V DC ... 18 V DC (20 °C)
Input voltage range in reference to U_N	see diagram
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U_N	16 mA
Typical response time	5 ms
Typical release time	8 ms
Coil voltage	12 V DC
Protective circuit	Freewheeling diode
Operating voltage display	Yellow LED

Output data

Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated

Maximum switching voltage	30 V AC
	36 V DC
Minimum switching voltage	100 mV (10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (12 V)
Interrupting rating (ohmic load) max.	1.2 W (24 V DC)
Utilization category CB Scheme (IEC 60947-5-1)	AC15, 3 A/250 V (N/O contact)
	AC15, 1 A/250 V (N/C contact)
	DC13, 1.5 A/24 V (N/O contact)
	DC13, 0.2 A/110 V (N/O contact)
	DC13, 0.1 A/220 V (N/O contact)

Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Contact material	AgSnO
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
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	7 mm
Conductor cross section rigid	0.5 mm² ... 4 mm²
Conductor cross-section rigid (2 conductors with same cross section)	0.5 mm² ... 1.5 mm²
Conductor cross section flexible	0.5 mm² ... 2.5 mm²
	0.5 mm² ... 2.5 mm² (Ferrule without plastic sleeve)
	0.5 mm² ... 1.5 mm² (Ferrule with plastic sleeve)
Conductor cross section flexible (2 conductors with same cross section)	0.5 mm² ... 1.5 mm²

	0.5 mm² ... 1 mm² (TWIN ferrule with plastic sleeve)
Conductor cross section AWG	20 ... 12 (solid)
	20 ... 14 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

Dimensions

Width	6.2 mm
Height	84 mm
Depth	68 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V2 (Housing)

Environmental and real-life conditions

Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Relay)	RT III (Relay)
Ambient temperature (operation)	-40 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

Corrosive gas test

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

Standards and regulations

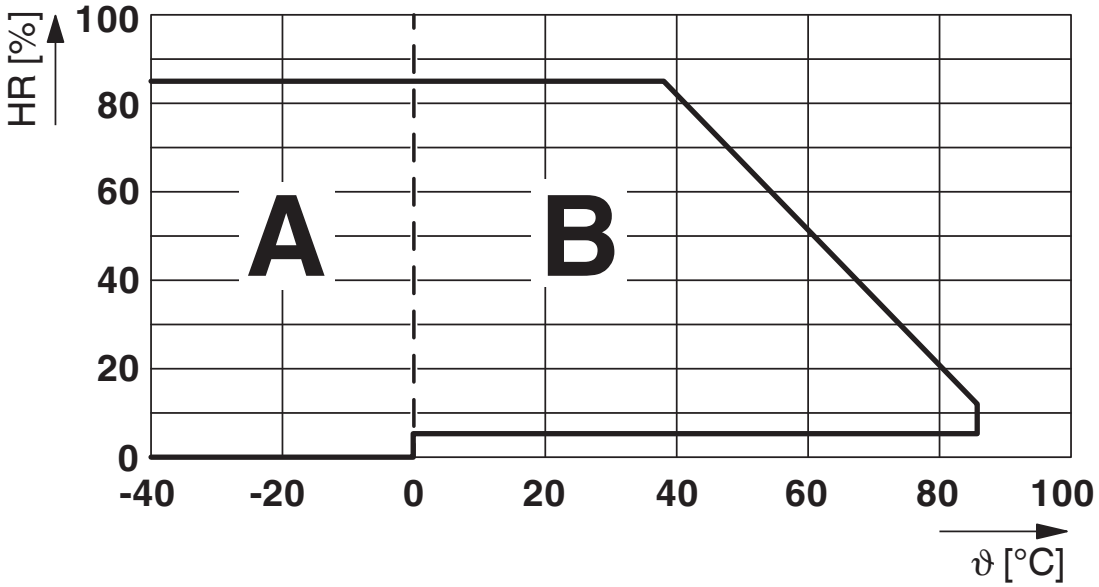
Standards/regulations	IEC 60947-5-1

Mounting

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

Drawings

Diagram

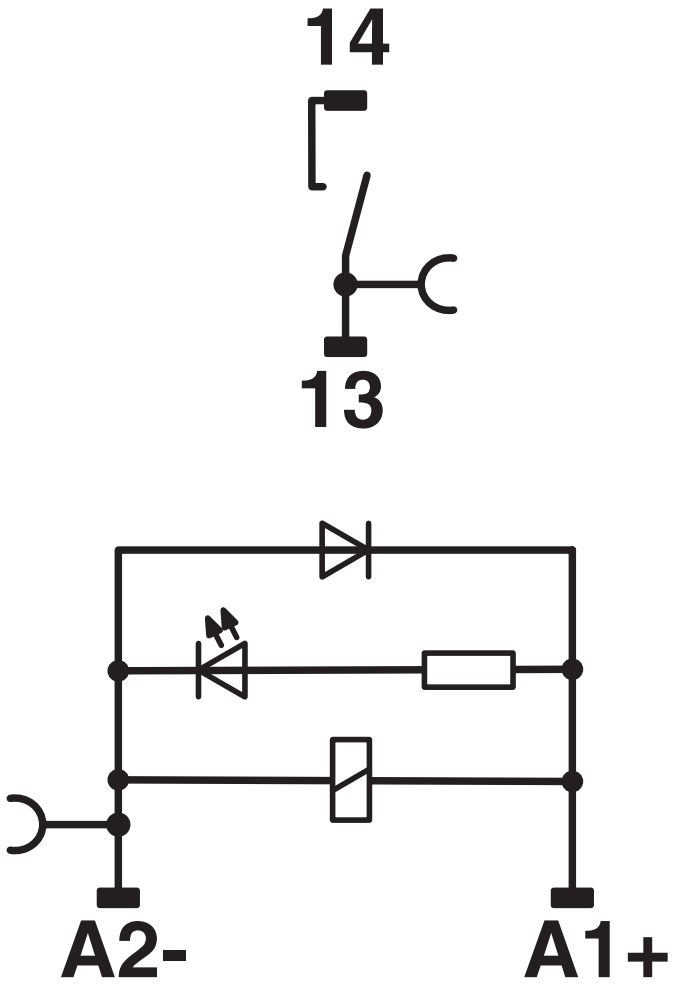


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

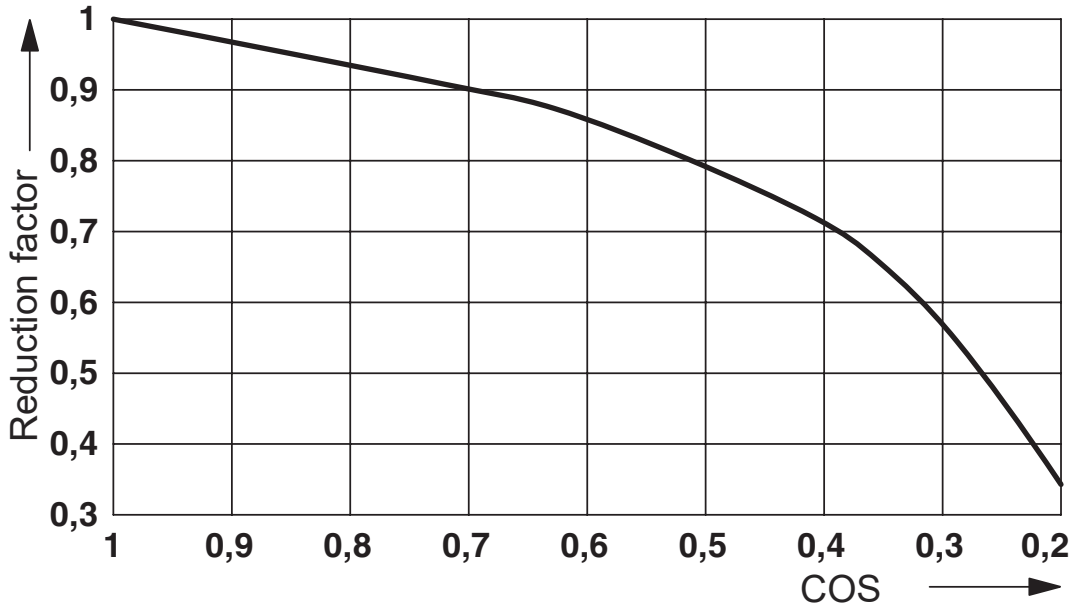
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

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

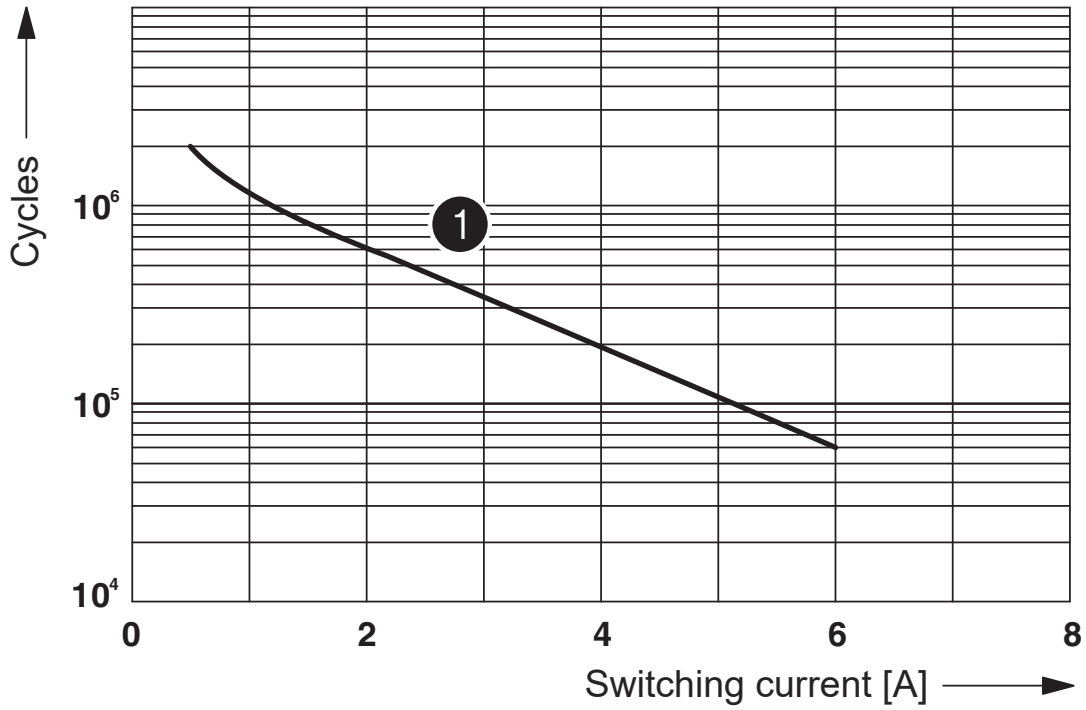


Diagram



Service life reduction factor

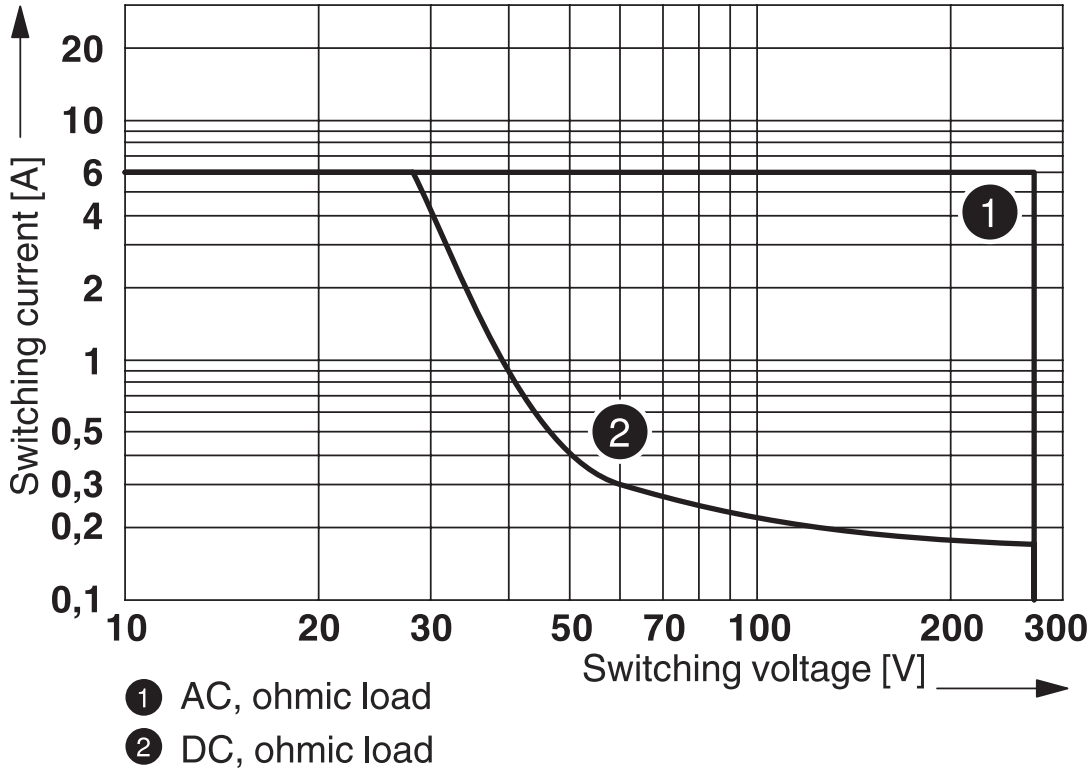
Diagram



1 250 V AC, ohmic load

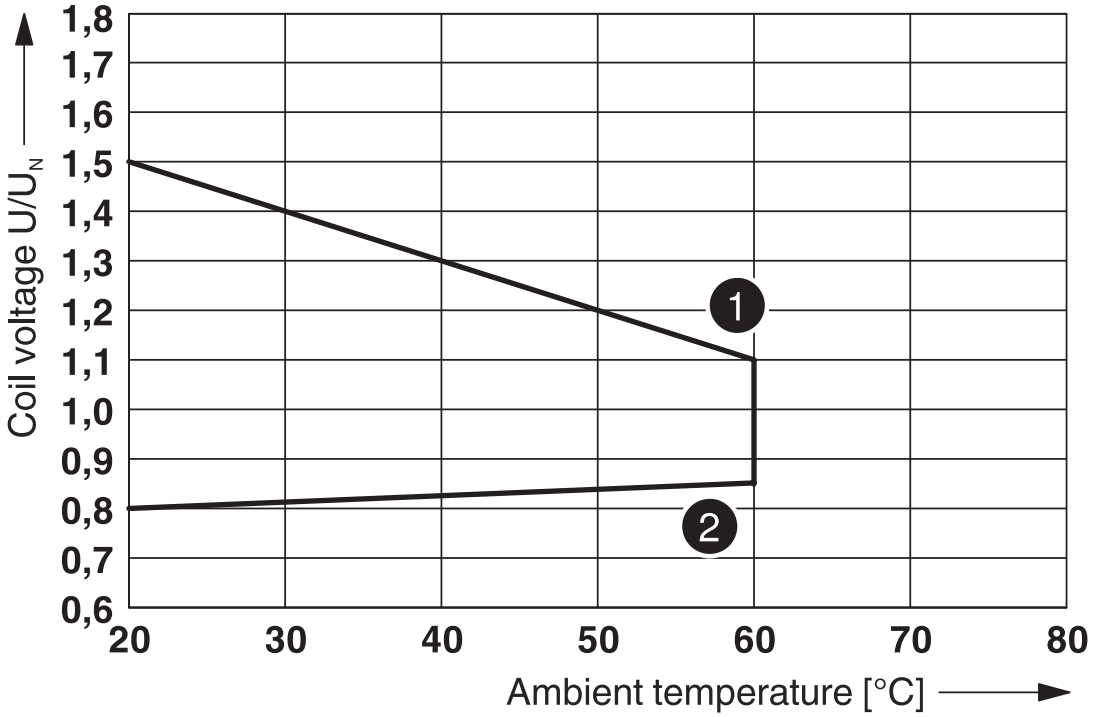
Electrical service life

Diagram



Interrupting rating

Diagram



1 Maximum continuous voltage at limiting continuous current = 6 A

2 Minimum operate voltage
For pre-excitation with U_N and limiting continuous current = 6 A

Operating voltage range

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2903365

EAC
Approval ID: TR_TS_D_00573_c

DNV GL
Approval ID: TAA000018V

Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	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)

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	1a41c3a1-e4ce-483a-9168-7ad1ec930676

Accessories

FBS 2-6 - Plug-in bridge

3030336

https://www.phoenixcontact.com/us/products/3030336



Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: red

FBS 3-6 - Plug-in bridge

3030242

https://www.phoenixcontact.com/us/products/3030242



Plug-in bridge, pitch: 6.2 mm, number of positions: 3, color: red

FBS 4-6 - Plug-in bridge

3030255

https://www.phoenixcontact.com/us/products/3030255



Plug-in bridge, pitch: 6.2 mm, number of positions: 4, color: red

FBS 5-6 - Plug-in bridge

3030349

https://www.phoenixcontact.com/us/products/3030349



Plug-in bridge, pitch: 6.2 mm, number of positions: 5, color: red

FBS 10-6 - Plug-in bridge

3030271

https://www.phoenixcontact.com/us/products/3030271



Plug-in bridge, pitch: 6.2 mm, number of positions: 10, color: red

FBS 20-6 - Plug-in bridge

3030365

https://www.phoenixcontact.com/us/products/3030365



Plug-in bridge, pitch: 6.2 mm, number of positions: 20, color: red

FBS 50-6 - Plug-in bridge

3032224

https://www.phoenixcontact.com/us/products/3032224



Plug-in bridge, pitch: 6.2 mm, number of positions: 50, color: red

FBS 2-6 BU - Plug-in bridge

3036932

https://www.phoenixcontact.com/us/products/3036932



Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: blue

FBS 3-6 BU - Plug-in bridge

3036945

https://www.phoenixcontact.com/us/products/3036945



Plug-in bridge, pitch: 6.2 mm, number of positions: 3, color: blue

FBS 4-6 BU - Plug-in bridge

3036958

https://www.phoenixcontact.com/us/products/3036958



Plug-in bridge, pitch: 6.2 mm, number of positions: 4, color: blue

FBS 5-6 BU - Plug-in bridge

3036961

https://www.phoenixcontact.com/us/products/3036961



Plug-in bridge, pitch: 6.2 mm, number of positions: 5, color: blue

FBS 10-6 BU - Plug-in bridge

3032198

https://www.phoenixcontact.com/us/products/3032198

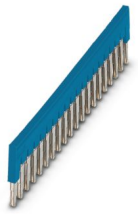


Plug-in bridge, pitch: 6.2 mm, number of positions: 10, color: blue

FBS 20-6 BU - Plug-in bridge

3032208

https://www.phoenixcontact.com/us/products/3032208



Plug-in bridge, pitch: 6.2 mm, number of positions: 20, color: blue

FBS 50-6 BU - Plug-in bridge

3032211

https://www.phoenixcontact.com/us/products/3032211



Plug-in bridge, pitch: 6.2 mm, number of positions: 50, color: blue

FBS 2-6 GY - Plug-in bridge

3032237

https://www.phoenixcontact.com/us/products/3032237



Plug-in bridge, pitch: 6.2 mm, number of positions: 2, color: gray

FBS 3-6 GY - Plug-in bridge

3032240

https://www.phoenixcontact.com/us/products/3032240



Plug-in bridge, pitch: 6.2 mm, number of positions: 3, color: gray

FBS 4-6 GY - Plug-in bridge

3032279

https://www.phoenixcontact.com/us/products/3032279



Plug-in bridge, pitch: 6.2 mm, number of positions: 4, color: gray

FBS 5-6 GY - Plug-in bridge

3032266

https://www.phoenixcontact.com/us/products/3032266



Plug-in bridge, pitch: 6.2 mm, number of positions: 5, color: gray

FBS 10-6 GY - Plug-in bridge

3032253

https://www.phoenixcontact.com/us/products/3032253



Plug-in bridge, pitch: 6.2 mm, number of positions: 10, color: gray

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 x 20 mm fuses. Operating voltage: Universal. Without fuse failure indication.

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 x 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 ... 230 V AC/DC. With LED for fuse failure indication.

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 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

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

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

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



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

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

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

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

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

CLIPFIX 35 - End bracket

3022218

https://www.phoenixcontact.com/us/products/3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

CLIPFIX 35-5 - End bracket

3022276

https://www.phoenixcontact.com/us/products/3022276

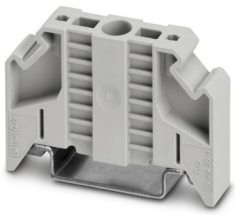


Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5. 15 mm, color: gray

E/NS 35 N - End bracket

0800886

https://www.phoenixcontact.com/us/products/0800886



End clamp, width: 9.5 mm, color: gray

MPS-MT - Test plug

0201744

https://www.phoenixcontact.com/us/products/0201744



Test plug, with solder connection up to 1 mm^2 conductor cross section, number of positions: 1, color: gray

MPS-IH WH - Insulating sleeve

0201663

https://www.phoenixcontact.com/us/products/0201663

Insulating sleeve, color: white



MPS-IH RD - Insulating sleeve

0201676

https://www.phoenixcontact.com/us/products/0201676

Insulating sleeve, color: red

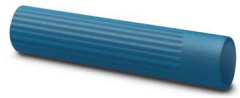


MPS-IH BU - Insulating sleeve

0201689

https://www.phoenixcontact.com/us/products/0201689

Insulating sleeve, color: blue



MPS-IH YE - Insulating sleeve

0201692

https://www.phoenixcontact.com/us/products/0201692

Insulating sleeve, color: yellow



MPS-IH GN - Insulating sleeve

0201702

https://www.phoenixcontact.com/us/products/0201702

Insulating sleeve, color: green



MPS-IH GY - Insulating sleeve

0201728

https://www.phoenixcontact.com/us/products/0201728

Insulating sleeve, color: gray



MPS-IH BK - Insulating sleeve

0201731

https://www.phoenixcontact.com/us/products/0201731

Insulating sleeve, color: black



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

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 ... 10, 11 ... 20, etc. up to 491 ... 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,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 ... 10, 11 ... 20, etc. up to 491 ... 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,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

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 x 10.5 mm, Number of individual labels: 80

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

UCT-TM 6 CUS - Marker for terminal blocks

0829602

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

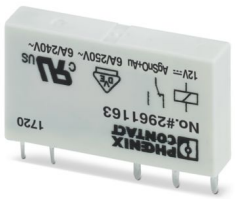


Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

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

2961163

https://www.phoenixcontact.com/us/products/2961163



Plug-in miniature power relay, with multi-layer gold contact, 1 changeover contact, input voltage 12 V DC

RIF-0-RSC-12DC/ 1AU - Relay Module

2903365

https://www.phoenixcontact.com/us/products/2903365

RIF-0-BSC/ 1 - Relay base

2901872

https://www.phoenixcontact.com/us/products/2901872



RIF-0... relay base, for miniature power relay with 1 N/O contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

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