# RIF-2-RPT-PHS-LDP-24DC/2X21 - Relay module

1577412

https://www.phoenixcontact.com/in/products/1577412

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Preassembled relay module with Push-in connection, consisting of: relay base, power contact relay, and reinforced retaining bracket. Contact switching type: 2 changeover contacts. Input voltage: 24 V DC

## Commercial data

| | |
|---|---|
| Item number | 1577412 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Product key | DK652A |
| GTIN | 4067923067554 |
| Weight per piece (including packing) | 109 g |
| Weight per piece (excluding packing) | 100 g |
| Country of origin | CN |

## Set consists of

### RIF-2-BPT/4X21 - Relay base

2900934

https://www.phoenixcontact.com/in/products/2900934

Relay base RIF-2..., for industrial relay with 2 or 4 changeover contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

### REL-IR2/LDP- 24DC/2X21 - Single relay

2903660

https://www.phoenixcontact.com/in/products/2903660

Plug-in industrial relay with power contacts, 2 changeover contacts, test button, status LED, freewheeling diode, mechanical switching position indicator, polarity: A1+, A2-, input voltage: 24 V DC

## RIF-RHS-2 - Retaining bracket

2908043

https://www.phoenixcontact.com/in/products/2908043

Reinforced relay retaining bracket, with eject function and holder for marking material, suitable for RIF-2 relay base, for industrial relays

# 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 | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 2 (Rated voltage of 230/400 V) |

### Data management status

| | |
|---|---|
| Date of last data management | 21.01.2025 |

## Electrical properties

| | |
|---|---|
| Maximum power dissipation for nominal condition | 1.01 W |
| Test voltage (Winding/contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., winding/contact) |
| Test voltage (Contact/contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., contact/contact) |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |

## Input data

### Coil side

| | |
|---|---|
| Nominal input voltage $U_N$ | 24 V DC |
| Input voltage range | 19.2 V DC ... 30 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 $U_N$ | 42 mA |
| Typical response time | 13 ms |
| Typical release time | 14 ms |
| Coil voltage | 24 V DC |
| Protective circuit | Freewheeling diode |
| 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 |
| Minimum switching voltage | 5 V (24 mA) |
| Limiting continuous current | 10 A (see diagram) |
| Maximum inrush current | 30 A (20 ms, N/O contacts) |
| Min. switching current | 5 mA (24 V) |
| Interrupting rating (ohmic load) max. | 240 W (at 24 V DC) |
| | 124 W (at 48 V DC) |
| | 108 W (at 60 V DC) |
| | 52 W (at 110 V DC) |
| | 48 W (at 220 V DC) |
| | 2500 VA (for 250 V AC) |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 0.22 A (at 120 V, DC13) |
| | 0.11 A (at 250 V, DC13) |
| | 3 A (at 120 V, AC15) |
| | 1.5 A (at 240 V, AC15) |

## Connection data

| | |
|---|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section rigid | 0.14 mm² ... 1.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 1.5 mm² |
| | 0.14 mm² ... 1.5 mm² (Ferrule with plastic sleeve) |
| | 0.14 mm² ... 1 mm² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross section AWG | 26 ... 16 (solid) |
| | 26 ... 16 (flexible) |

## Dimensions

Item dimensions

| | |
|---|---|
| Width | 31 mm |
| Height | 96 mm |
| Depth | 75 mm |

Drill hole

| | |
|---|---|
| Diameter | 3.2 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 I (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

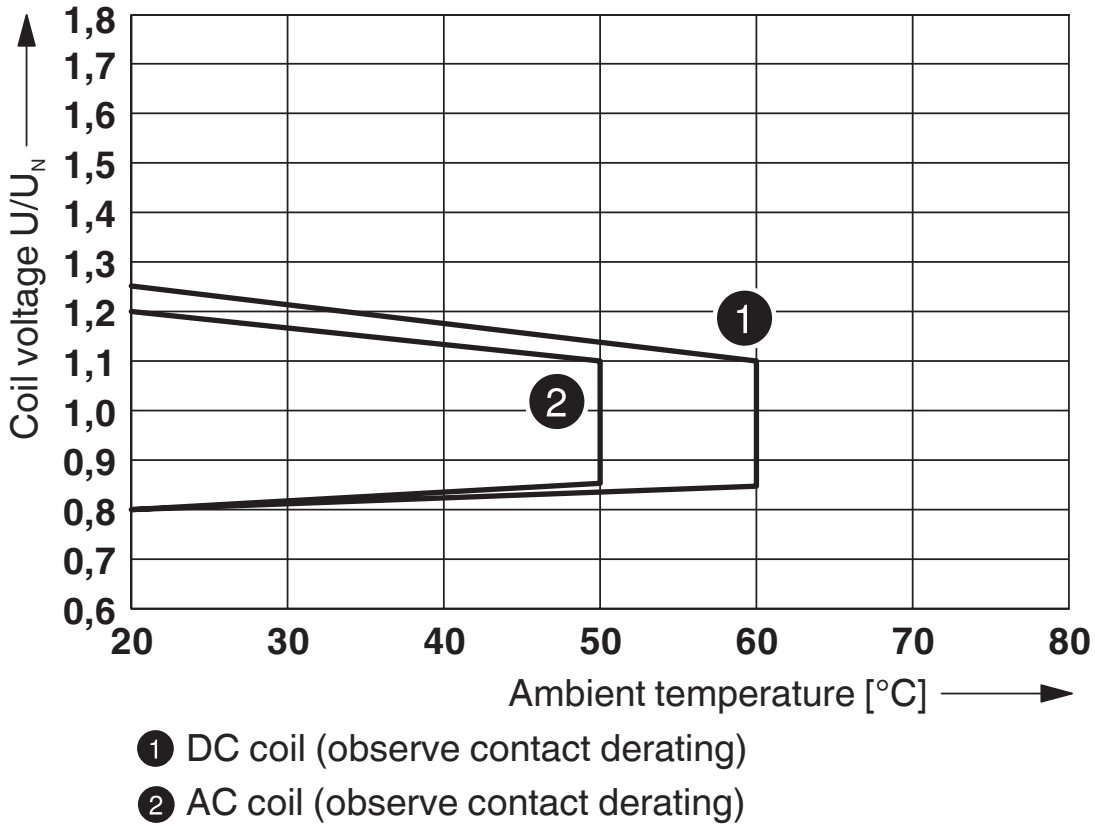
| | |
|---|---|
| Standards/regulations | IEC 60947-5-1 |

## Mounting

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

## Drawings

Diagram

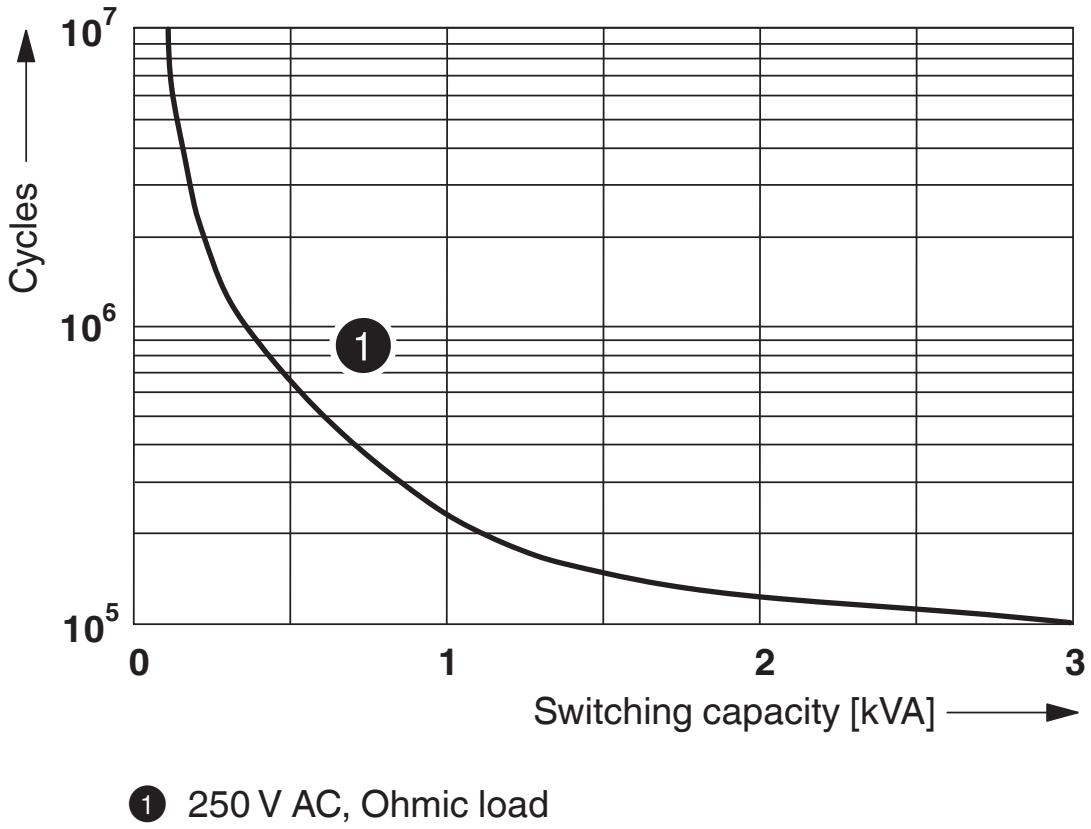



1 DC coil (observe contact derating)

2 AC coil (observe contact derating)

Operating voltage range

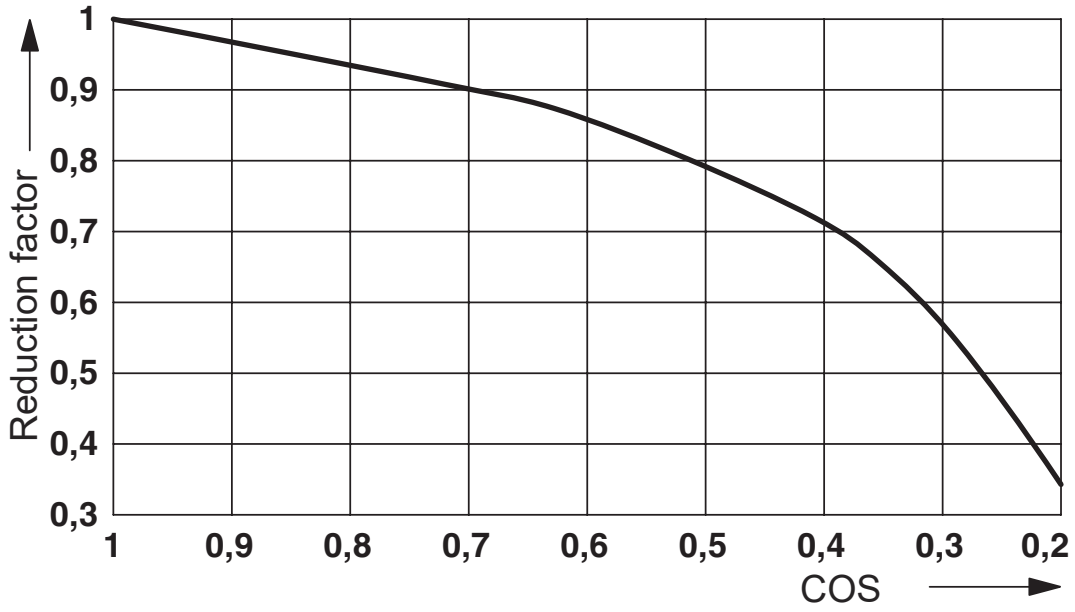
Diagram




1 250 V AC, Ohmic load

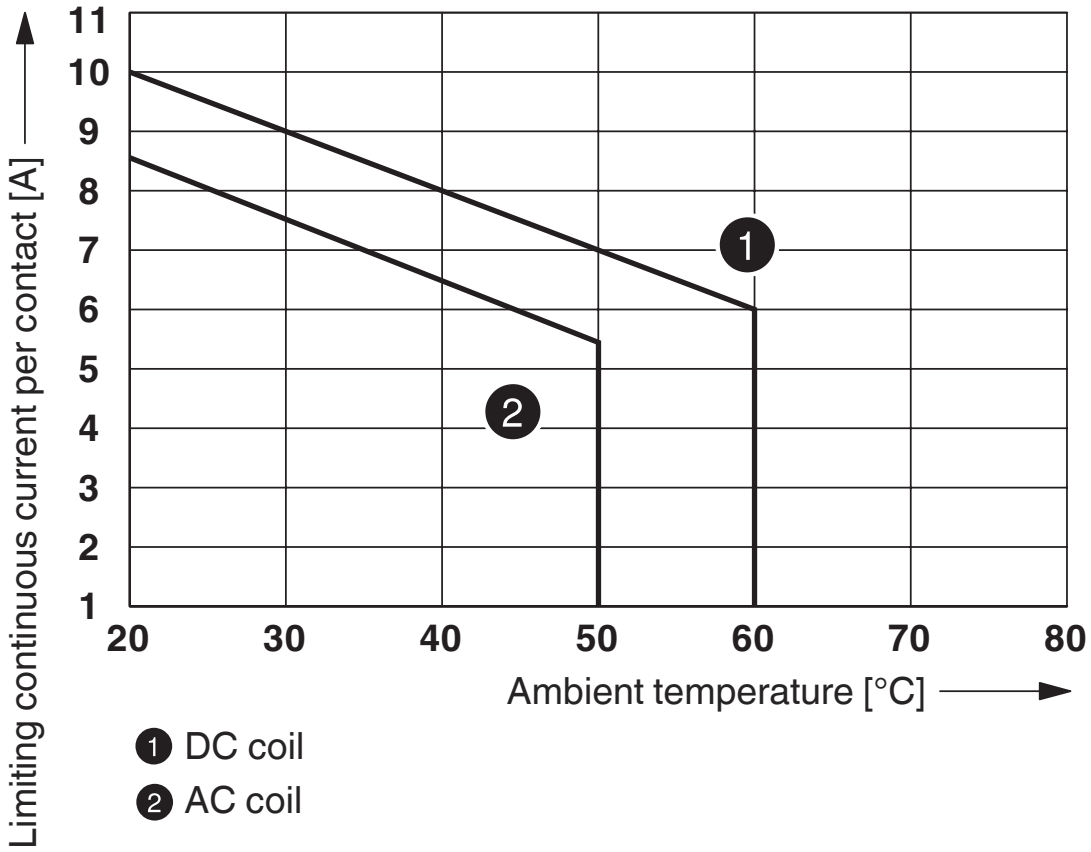
Electrical service life

Diagram



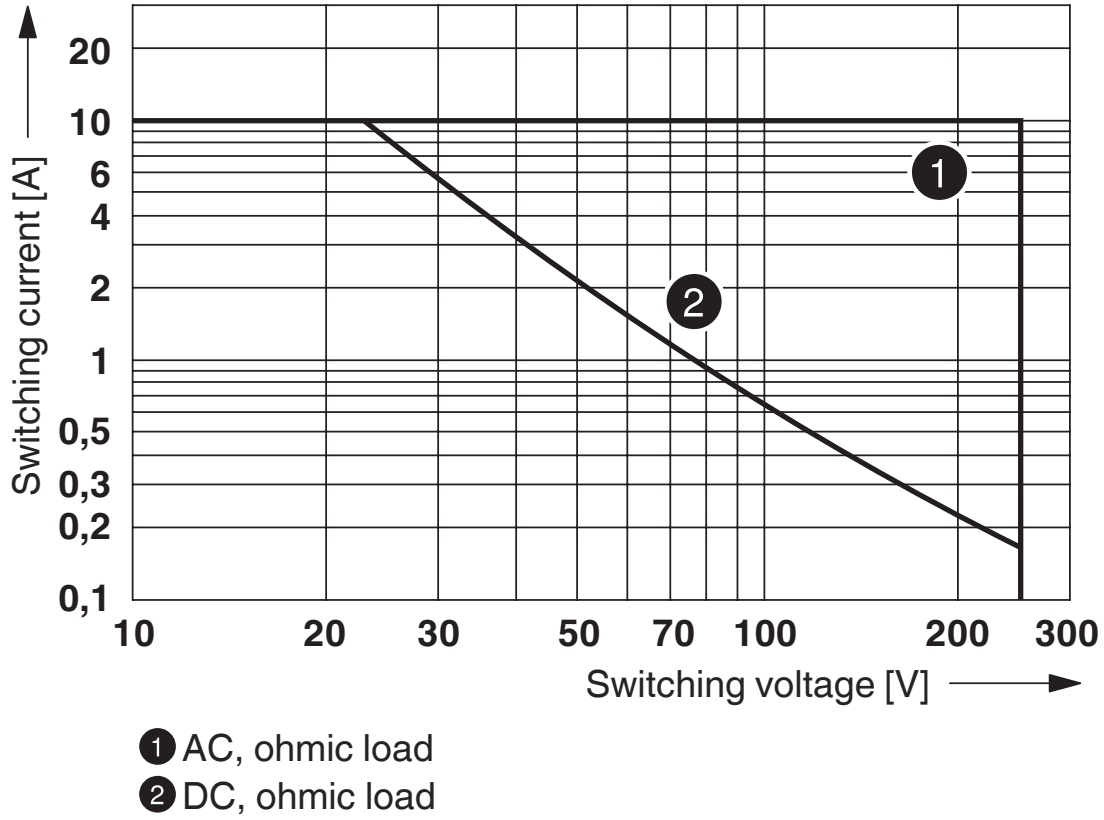

Service life reduction factor

Diagram




Contact derating

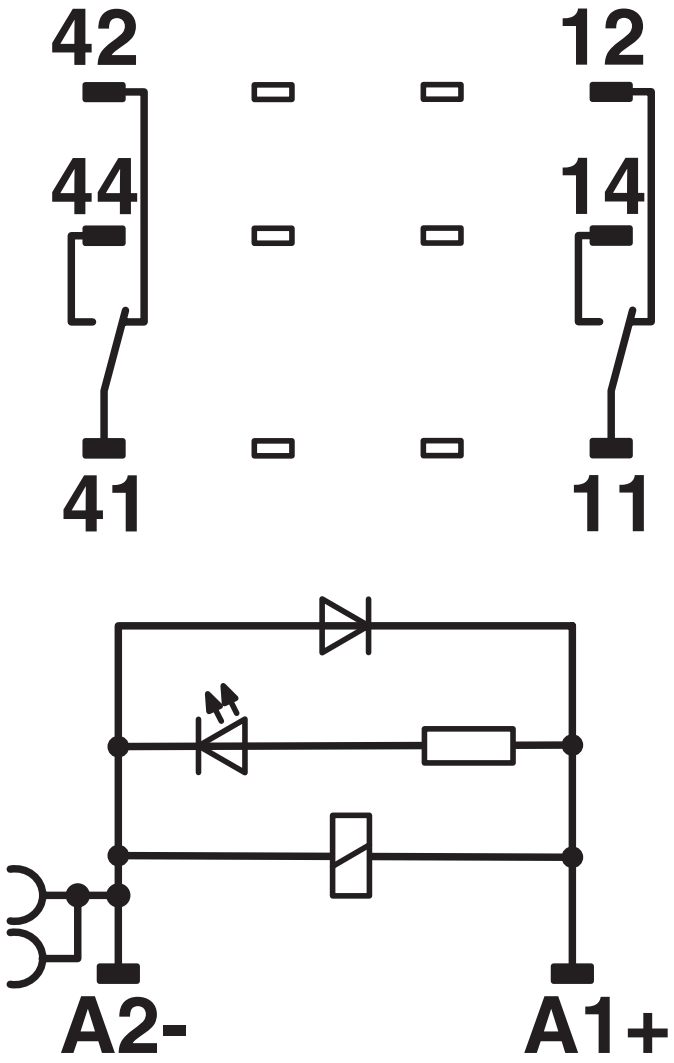
Diagram




1 AC, ohmic load
2 DC, ohmic load

Interrupting rating

Circuit diagram




DC coils

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

| | |
|---|---|
| ETIM 9.0 | EC001437 |

## Environmental product compliance

EU RoHS

| | |
|---|---|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |

China RoHS

| | |
|---|---|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|---|---|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |

## Accessories

### FBS 2-6 - Plug-in bridge

3030336

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

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

### FBS 2-6 BU - Plug-in bridge

3036932

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

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

## FBS 2-6 GY - Plug-in bridge

3032237

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

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

## STP 5-2 - Marker carriers

0800967

https://www.phoenixcontact.com/in/products/0800967

Marker carriers, snaps into STTB 2,5, STTB 4, PTTB 2,5, and PTTB 4 double-level spring-cage terminal blocks, can be marked with UC-TM 5, UC-TMF 5, UCT-TM 5, UCT-TMF 5, ZB 5, or ZBF 5, gray, unlabeled, mounting type: plug in, text field height: 10.5 mm, text field width: 5 mm

## UC-TM 16 - Marker for terminal blocks

0819217

https://www.phoenixcontact.com/in/products/0819217

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 16 mm, Number of individual labels: 32, text field height: 10.5 mm, text field width: 15.45 mm

## UC-TMF 16 - Marker for terminal blocks

0819262

https://www.phoenixcontact.com/in/products/0819262

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 16 mm, Number of individual labels: 32, text field height: 5.1 mm, text field width: 15.45 mm

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

0801733

https://www.phoenixcontact.com/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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/in/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

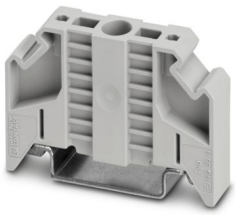
https://www.phoenixcontact.com/in/products/3022276

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/in/products/0800886



End clamp, width: 9.5 mm, color: gray

## MPS-MT - Test plug

0201744

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

Insulating sleeve, color: white

## MPS-IH RD - Insulating sleeve

0201676

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

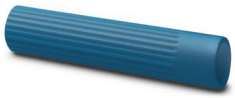
Insulating sleeve, color: red

## MPS-IH BU - Insulating sleeve

0201689

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

Insulating sleeve, color: blue



## MPS-IH YE - Insulating sleeve

0201692

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

Insulating sleeve, color: yellow

## MPS-IH GN - Insulating sleeve

0201702

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

Insulating sleeve, color: green

## MPS-IH GY - Insulating sleeve

0201728

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

Insulating sleeve, color: gray

## MPS-IH BK - Insulating sleeve

0201731

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

Insulating sleeve, color: black

## ZB 5 :UNBEDRUCKT - Zack marker strip

1050004

https://www.phoenixcontact.com/in/products/1050004

Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.1 mm

## ZB 5 CUS - Zack marker strip

0824962

https://www.phoenixcontact.com/in/products/0824962

Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.15 mm

## ZB 5,LGS:FORTL.ZAHLEN - Zack marker strip

1050017

https://www.phoenixcontact.com/in/products/1050017

Zack marker strip, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: latching, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.15 mm

## ZB 5,QR:FORTL.ZAHLEN - Zack marker strip

1050020

https://www.phoenixcontact.com/in/products/1050020

Zack marker strip, Strip, white, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: latching, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.15 mm

## ZB 5,LGS:GLEICHE ZAHLEN - Zack marker strip

1050033

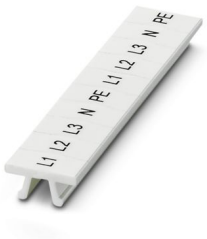
https://www.phoenixcontact.com/in/products/1050033

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: latching, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.15 mm

## ZB 5,LGS:L1-N,PE - Zack marker strip

1050415

https://www.phoenixcontact.com/in/products/1050415




Zack marker strip, Strip, white, labeled, horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, mounting type: latching, for terminal block width: 5.2 mm, Number of individual labels: 10, text field height: 10.5 mm, text field width: 5.15 mm

## UC-TM 5 - Marker for terminal blocks

0818108

https://www.phoenixcontact.com/in/products/0818108

Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 5.2 mm, Number of individual labels: 96, text field height: 10.5 mm, text field width: 4.6 mm

## UC-TM 5 CUS - Marker for terminal blocks

0824581

https://www.phoenixcontact.com/in/products/0824581

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: 5.2 mm, Number of individual labels: 96, text field height: 4.6 mm, text field width: 10.5 mm

## UCT-TM 5 - Marker for terminal blocks

0828734

https://www.phoenixcontact.com/in/products/0828734

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: latching, for terminal block width: 5.2 mm, Number of individual labels: 72, text field height: 10.5 mm, text field width: 4.6 mm

## UCT-TM 5 CUS - Marker for terminal blocks

0829595

https://www.phoenixcontact.com/in/products/0829595

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: 5.2 mm, Number of individual labels: 72, text field height: 10.5 mm, text field width: 4.6 mm

## GBS 5-25X12 - Group marker label for terminal marking

0810588

https://www.phoenixcontact.com/in/products/0810588

Group marker label, snaps onto terminal center for screw, spring-cage and quick connection terminal blocks, labeled with a 25 x 12 mm label or manually with the B-STIFT, in the foot part with ZB 5

## GBS 5-25X5 - Group marker label for terminal marking

0829126

https://www.phoenixcontact.com/in/products/0829126

Group marking label, can be snapped into terminal center for screw, spring-cage, push-in, and fast connection terminal blocks, can be labeled with a 24 x 4 mm label or manually using B-STIFT, in the foot part with ZB 5

## STP 5-2-ZB - Marker carriers

3037643

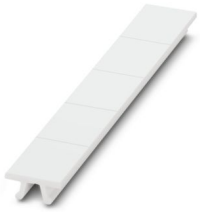
https://www.phoenixcontact.com/in/products/3037643

Marker carriers, snaps into ST 2,5 spring-cage terminal blocks, can be marked with UC-TM 5, UC-TMF 5, UCT-TM 5, UCT-TMF 5, ZB 5, or ZBF 5, gray, unlabeled, mounting type: latching, text field height: 10.5 mm, text field width: 5 mm

## ZB 15:UNBEDRUCKT - Zack marker strip

0811972

https://www.phoenixcontact.com/in/products/0811972

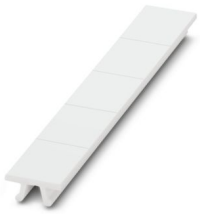


Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 15.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 15.1 mm

## ZB 15 CUS - Zack marker strip

0824945

https://www.phoenixcontact.com/in/products/0824945



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, Number of individual labels: 5, text field height: 15.1 mm, text field width: 10.5 mm

## ZB 15,LGS:L1-N,PE - Zack marker strip

0811998

https://www.phoenixcontact.com/in/products/0811998

Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: latching, for terminal block width: 15.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 15.1 mm

## RIF-2-BPT/4X21 - Relay base

2900934

https://www.phoenixcontact.com/in/products/2900934

Relay base RIF-2..., for industrial relay with 2 or 4 changeover contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

## REL-IR2/LDP- 24DC/2X21 - Single relay

2903660

https://www.phoenixcontact.com/in/products/2903660

Plug-in industrial relay with power contacts, 2 changeover contacts, test button, status LED, freewheeling diode, mechanical switching position indicator, polarity: A1+, A2-, input voltage: 24 V DC

## RIF-RHS-2 - Retaining bracket

2908043

https://www.phoenixcontact.com/in/products/2908043

Reinforced relay retaining bracket, with eject function and holder for marking material, suitable for RIF-2 relay base, for industrial relays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