

## Feed-through modular terminal block - BT 14 - 3281176

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Feed-through modular terminal block, nom. voltage: 690 V, nominal current: 76 A, connection method: Ring cable lug, number of connections: 2, width: 15 mm, color: black, mounting type: NS 35/7,5, NS 35/15

### Your advantages

- ✓ Maximum overview thanks to extensive marking and labeling of every terminal point
- ✓ Convenient ring cable lug connection thanks to the screw connection principle with spring-guided screw; maintenance-free with integrated screw locking
- ✓ Easy potential distribution with time-saving jumper system
- ✓ Safety for users thanks to integrated shock protection
- ✓ Reduction in logistics costs with the uniform CLIPLINE complete system accessories

RoHS

### Key Commercial Data

|              |                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------|
| Packing unit | 25 pc                                                                                                   |
| GTIN         | <br>4 055626 406893 |
| GTIN         | 4055626406893                                                                                           |

### Technical data

#### General

|                                        |                    |
|----------------------------------------|--------------------|
| Number of levels                       | 1                  |
| Number of connections                  | 2                  |
| Potentials                             | 1                  |
| Nominal cross section                  | 16 mm <sup>2</sup> |
| Color                                  | black              |
| Insulating material                    | PC                 |
| Flammability rating according to UL 94 | V0                 |
| Rated surge voltage                    | 8 kV               |
| Degree of pollution                    | 3                  |
| Overvoltage category                   | III                |
| Insulating material group              | IIIa               |

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## Technical data

### General

|                                                                                           |                                                                        |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Maximum power dissipation for nominal condition                                           | 2.43 W                                                                 |
| Maximum load current                                                                      | 76 A                                                                   |
| Nominal current $I_N$                                                                     | 76 A                                                                   |
| Nominal voltage $U_N$                                                                     | 690 V                                                                  |
| Open side panel                                                                           | Yes                                                                    |
| Ambient temperature (operation)                                                           | -60 °C ... 85 °C                                                       |
| Ambient temperature (storage/transport)                                                   | -25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C) |
| Permissible humidity (storage/transport)                                                  | 30 % ... 70 %                                                          |
| Ambient temperature (assembly)                                                            | -5 °C ... 70 °C                                                        |
| Ambient temperature (actuation)                                                           | -5 °C ... 70 °C                                                        |
| Shock protection test specification                                                       | IEC 60529:2001-02                                                      |
| Back of the hand protection                                                               | guaranteed                                                             |
| Finger protection                                                                         | guaranteed                                                             |
| Result of surge voltage test                                                              | Test passed                                                            |
| Result of power-frequency withstand voltage test                                          | Test passed                                                            |
| Power frequency withstand voltage setpoint                                                | 1.89 kV                                                                |
| Result of the test for mechanical stability of terminal points (5 x conductor connection) | Test passed                                                            |
| Result of tight fit on support                                                            | Test passed                                                            |
| Tight fit on carrier                                                                      | NS 35                                                                  |
| Setpoint                                                                                  | 5 N                                                                    |
| Result of voltage-drop test                                                               | Test passed                                                            |
| Result of temperature-rise test                                                           | Test passed                                                            |
| Requirement temperature-rise test                                                         | Increase in temperature $\leq 45$ K                                    |
| Short circuit stability result                                                            | Test passed                                                            |
| Conductor cross section short circuit testing                                             | 16 mm <sup>2</sup>                                                     |
| Short-time current                                                                        | 1.92 kA                                                                |
| Result of thermal test                                                                    | Test passed                                                            |
| Proof of thermal characteristics (needle flame) effective duration                        | 30 s                                                                   |

### Dimensions

|                  |         |
|------------------|---------|
| Width            | 15 mm   |
| Length           | 59 mm   |
| Height NS 35/7,5 | 45.2 mm |
| Height NS 35/15  | 52.7 mm |
| Pitch            | 15 mm   |

### Connection data

|                                  |                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------|
| Connection method                | Ring cable lug                                                                            |
| Stripping length                 | The stripping length depends on the specification provided by the cable lug manufacturer. |
| Connection in acc. with standard | IEC 60947-7-1                                                                             |

## Feed-through modular terminal block - BT 14 - 3281176

### Technical data

#### Connection data

|                                             |                     |
|---------------------------------------------|---------------------|
| Cable lug connection according to standard  | DIN 46234:1980-03   |
| Min. cross section for cable lug connection | 0.5 mm <sup>2</sup> |
| Max. cross section for cable lug connection | 16 mm <sup>2</sup>  |
| AWG min                                     | 20                  |
| AWG max                                     | 6                   |
| Hole diameter, min.                         | 5.1 mm              |
| Cable lug width, max.                       | 12.7 mm             |
| Bolt diameter                               | 5 mm                |
| Screw thread                                | M5                  |
| Tightening torque, min                      | 2.6 Nm              |
| Tightening torque max                       | 3.7 Nm              |
| Connection in acc. with standard            | JIS 8207-7-1        |
| Cable lug connection according to standard  | JIS 8207-7-1        |
| Min. cross section for cable lug connection | 0.5 mm <sup>2</sup> |
| Max. cross section for cable lug connection | 14 mm <sup>2</sup>  |
| Hole diameter, min.                         | 5.1 mm              |
| Cable lug width, max.                       | 12.7 mm             |
| Bolt diameter                               | 5 mm                |
| Screw thread                                | M5                  |
| Tightening torque, min                      | 2.6 Nm              |
| Tightening torque max                       | 3.7 Nm              |

#### Standards and Regulations

|                                        |               |
|----------------------------------------|---------------|
| Connection in acc. with standard       | IEC 60947-7-1 |
|                                        | JIS 8207-7-1  |
| Flammability rating according to UL 94 | V0            |

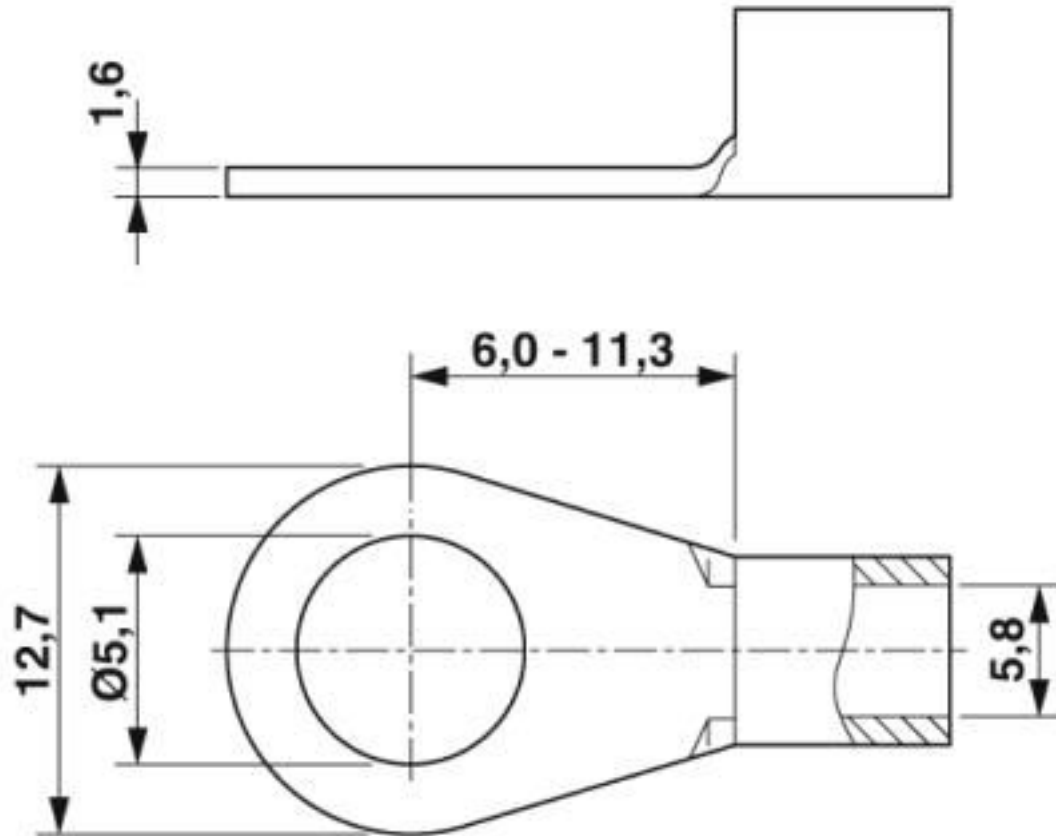
#### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

### Drawings

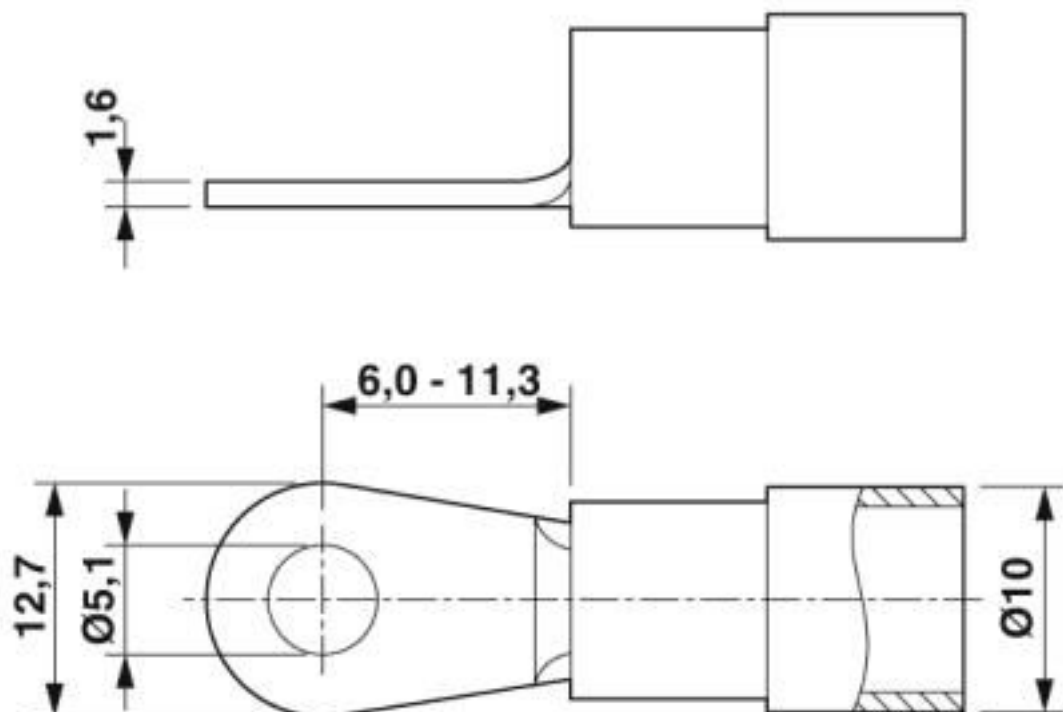
## Feed-through modular terminal block - BT 14 - 3281176

Dimensional drawing



## Feed-through modular terminal block - BT 14 - 3281176

Dimensional drawing



Circuit diagram



### Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27141120 |
| eCl@ss 4.0    | 27141120 |
| eCl@ss 4.1    | 27141120 |
| eCl@ss 5.0    | 27141120 |
| eCl@ss 5.1    | 27141120 |
| eCl@ss 6.0    | 27141100 |
| eCl@ss 7.0    | 27141120 |
| eCl@ss 8.0    | 27141120 |
| eCl@ss 9.0    | 27141120 |

ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000897 |
| ETIM 3.0 | EC000897 |
| ETIM 4.0 | EC000897 |

## Feed-through modular terminal block - BT 14 - 3281176

### Classifications

#### ETIM

|          |          |
|----------|----------|
| ETIM 5.0 | EC000897 |
| ETIM 6.0 | EC000897 |
| ETIM 7.0 | EC000897 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211811 |
| UNSPSC 7.0901 | 39121410 |
| UNSPSC 11     | 39121410 |
| UNSPSC 12.01  | 39121410 |
| UNSPSC 13.2   | 39121410 |
| UNSPSC 18.0   | 39121410 |
| UNSPSC 19.0   | 39121410 |
| UNSPSC 20.0   | 39121410 |
| UNSPSC 21.0   | 39121410 |

### Approvals

#### Approvals

#### Approvals

CSA / UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|                    |                                                                                     |                                                                                                                                         |       |
|--------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                    | B                                                                                   | C                                                                                                                                       |       |
| Nominal voltage UN | 600 V                                                                               | 600 V                                                                                                                                   |       |
| Nominal current IN | 60 A                                                                                | 60 A                                                                                                                                    |       |
| mm²/AWG/kcmil      | 20-6                                                                                | 20-6                                                                                                                                    |       |

|                    |                                                                                     |                                                                                                                                                       |              |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| UL Recognized      |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|                    | B                                                                                   | C                                                                                                                                                     |              |
| Nominal voltage UN | 600 V                                                                               | 600 V                                                                                                                                                 |              |
| Nominal current IN | 60 A                                                                                | 60 A                                                                                                                                                  |              |

## Feed-through modular terminal block - BT 14 - 3281176

### Approvals

|               | B    | C    |
|---------------|------|------|
| mm²/AWG/kcmil | 20-6 | 20-6 |

|                    |       |       |                                                                                   |                                                                                                                                                       |              |
|--------------------|-------|-------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| cUL Recognized     |       |       |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|                    | B     | C     |                                                                                   |                                                                                                                                                       |              |
| Nominal voltage UN | 600 V | 600 V |                                                                                   |                                                                                                                                                       |              |
| Nominal current IN | 60 A  | 60 A  |                                                                                   |                                                                                                                                                       |              |
| mm²/AWG/kcmil      | 20-6  | 20-6  |                                                                                   |                                                                                                                                                       |              |

|     |                                                                                   |                          |
|-----|-----------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00541 |
|-----|-----------------------------------------------------------------------------------|--------------------------|

|                  |                                                                                    |
|------------------|------------------------------------------------------------------------------------|
| cULus Recognized |  |
|------------------|------------------------------------------------------------------------------------|

### Accessories

#### Accessories

#### Cover profile

Cover profile - AP-BTO 5,5/14 - 3281151



Cover profile, width: 54.5 mm, height: 10.5 mm, material: PC, length: 1000 mm, color: transparent

#### DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

---

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

---

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver



## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



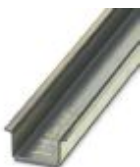
DIN rail end piece, for DIN rail NS 35/7.5

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

---

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

---

End cap - NS 35/15 CAP - 1206573



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

---

End block

End clamp - E/NS 35 N BK - 0804271



End clamp, width: 9.5 mm, height: 32.8 mm, material: PA, length: 48.6 mm, color: black

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End cover

End cover - D-BT 14 - 3281188



End cover, length: 59 mm, width: 3.5 mm, height: 37.7 mm, color: black

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Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, color: white

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



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Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



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Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



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Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



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### Jumper

Plug-in bridge - FBS 2-8 - 3030284



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: red

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Plug-in bridge - FBS 2-8 BU - 3032567



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: blue

---

Plug-in bridge - FBS 2-8 GY - 3032621



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: gray

---

### Labeled terminal marker

Marker for terminal blocks - TMT 6 R CUS - 0824488



Marker for terminal blocks, can be ordered: by line, white, labeled according to customer specifications, mounting type: snap into universal marker groove, snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 6.35 x 6.15 mm

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### Partition plate

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

Spacer plate - DP PS-5 - 3036725



Spacer plate, length: 22.4 mm, width: 5.2 mm, height: 29 mm, number of positions: 1, color: red

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### Planning and marking software

Software - CLIP-PROJECT ADVANCED - 5146040



Multilingual software for convenient configuration of Phoenix Contact products on standard DIN rails.

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Software - CLIP-PROJECT PROFESSIONAL - 5146053



Multilingual software for terminal strip configuration. A marking module enables the professional marking of markers and labels for identifying terminal blocks, conductors and cables, and devices.

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### Screwdriver tools

Philips screwdriver - SF-PH 2-100 - 1212560



Screwdriver, PH crosshead (lasered), uninsulated, size: PH 2 x 100, 2-component grip, with non-slip grip

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Philips screwdriver - SF-PH 2-100 S-VDE - 1212694



Screwdriver, crosshead PH (lasered), insulated, size: PH 2 x 100, 2-component handle, with non-slip grip

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### Terminal marking

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

#### Marker for terminal blocks - TMT 6 R - 0816498



Marker for terminal blocks, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, perforated, mounting type: snap into universal marker groove, snap into flat marker groove, for terminal block width: 6.2 mm, lettering field size: 6.35 x 6.15 mm, Number of individual labels: 16000

---

#### Marker for terminal blocks - TMT (EX9,5)R - 0828295



Marker for terminal blocks, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: snap into universal marker groove, snap into tall marker groove, for terminal block width: 50000 mm, lettering field size: 9.5 x 50000 mm, Number of individual labels: 1

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#### Marker for terminal blocks - US-TM 100 - 0829255



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snap into universal marker groove, lettering field size: 104 x 9.8 mm, Number of individual labels: 13

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### Test plug terminal block

#### Test plugs - PS-5 - 3030983



Test plugs, Modular test plug, color: red

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#### Test plugs - PS-5/2,3MM RD - 3038723



Test plugs, color: red

## Feed-through modular terminal block - BT 14 - 3281176

### Accessories

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray

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### Test socket

Test adapter - PAI-4 - 3030925



Test adapter, for 4 mm test plug and terminal blocks with 4.2 mm ... 8.2 mm pitch, color: gray

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