# Data Sheet | Item Number: 281-634/281-413

## Component terminal block; double-deck; LED (red); 24 VDC; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm²; CAGE CLAMP®; 4,00 mm²; gray

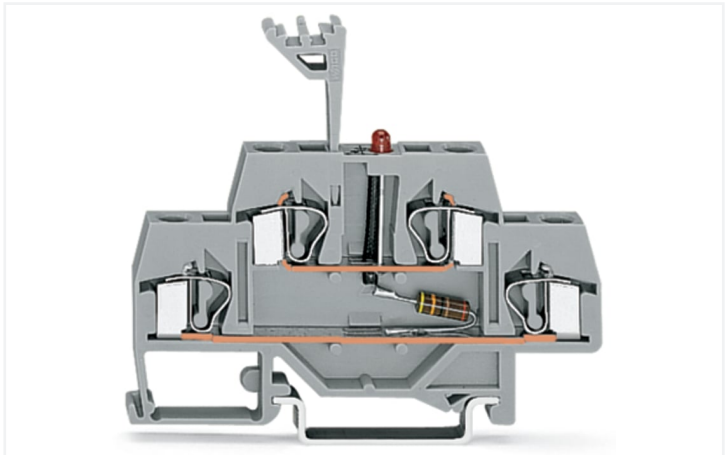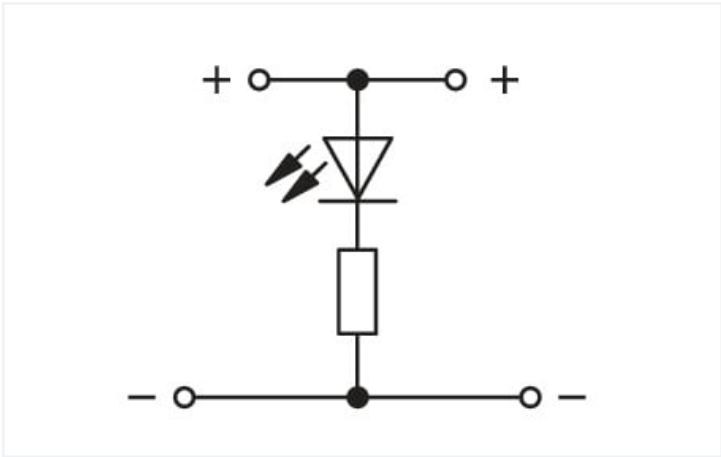https://www.wago.com/281-634/281-413

Color: ■ gray

Similar to illustration

Similar to illustration

281-634/281-413

Double-deck terminal block, 281 Series, operating tool

Enjoy fault-free electrical installations with this double-deck terminal block (item number 281-634/281-413). The double-deck terminal block also functions as component terminal block with led. Ensure that the strip lengths are between 9 mm and 10 mm when connecting conductors to this double-deck terminal block. Featuring conductor terminals along with CAGE CLAMP®, this connector is highly versatile. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. Depending on the type of conductor, this double-deck terminal block is designed for conductor cross sections ranging from 0.08 mm² to 4 mm². It has two levels. Two potentials can connect using the four clamping points The gray housing is made of polyamide (PA66) for insulation. These function terminal blocks are mounted using DIN-35 rails..

## Electrical data

| Ratings per | IEC/EN 60947-7-1 | | | General information | |
|---|---|---|---|---|---|
| Overvoltage category | III | III | II | Voltage type 1 | DC |
| Pollution degree | 3 | 2 | 2 | Nominal voltage | 24 V |
| Nominal voltage | - | - | - | | |
| Rated surge voltage | - | - | - | | |
| Rated current | - | - | - | | |

## Connection data

| | |
|---|---|
| Clamping units | 4 |
| Total number of potentials | 2 |
| Number of levels | 2 |

### Connection 1

| | |
|---|---|
| Connection technology | CAGE CLAMP® |
| Actuation type | Operating tool |
| Connectable conductor materials | Copper<br>Aluminum |
| Connectable conductor materials (note) | **Terminating Aluminum Conductors**<br>WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 is used for termination.<br><br>"Alu-Plus" Contact Paste Advantages:<br><br>• Automatically destroys the oxide film during clamping.<br>• Prevents fresh oxidation at the clamping point.<br>• Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).<br>• Provides long-term protection against corrosion.<br><br>Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately inserted into the clamping units filled with "Alu-Plus" contact paste.<br><br>It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.<br><br>Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::<br>2.5 mm² = 16 A<br>4 mm² = 22 A |
| Solid conductor | 0.08 … 4 mm² / 28 … 12 AWG |
| Fine-stranded conductor | 0.08 … 4 mm² / 28 … 12 AWG |
| Strip length | 9 … 10 mm / 0.35 … 0.39 inches |
| Wiring direction | Front-entry wiring |

## Physical data

| | |
|---|---|
| Width | 6 mm / 0.236 inches |
| Height | 73.5 mm / 2.894 inches |
| Depth from upper-edge of DIN-rail | 58.5 mm / 2.303 inches |

## Mechanical data

| | |
|---|---|
| Design | horizontal type |
| Mounting type | DIN-35 rail |
| Marking level | Center marking |

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | gray |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Fire load | 0.23 MJ |
| Weight | 14.3 g |

## Environmental requirements

| | |
|---|---|
| Processing temperature | -35 ... +85 ℃ |
| Continuous operating temperature | -60 ... +105 ℃ |

## Commercial data

| | |
|---|---|
| Product Group | 1 (Rail Mounted Terminal Blocks) |
| eCl@ss 10.0 | 27-14-11-27 |
| eCl@ss 9.0 | 27-14-11-27 |
| ETIM 9.0 | EC000903 |
| ETIM 8.0 | EC000903 |
| PU (SPU) | 50 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4045454371494 |
| Customs tariff number | 85369010000 |

## Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant,No Exemption |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CCA DEKRA Certification B.V. | EN 60947,IEC 60947 | NTR NL-7454/A1 |
| KEMA/KEUR DEKRA Certification B.V. | EN 60947 | 71-107288 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS American Bureau of Shipping | - | 20-HG1941090-PDA |

**WAGO**

## Downloads

### Environmental Product Compliance

| Compliance Search | |
|---|---|
| Environmental Product Compliance 281-634/281-413 | ↓ |

## Documentation

| Additional Information | | | | Bid Text | | | |
|---|---|---|---|---|---|---|---|
| Technical Section | | pdf 2246.92 KB | ↓ | 281-634/281-413 | 19.02.2019 | xml 3.22 KB | ↓ |
| | | | | 281-634/281-413 | 27.04.2017 | doc 24.50 KB | ↓ |

## CAD/CAE-Data

| CAD data | | CAE data | |
|---|---|---|---|
| 2D/3D Models 281-634/281-413 | ↓ | EPLAN Data Portal 281-634/281-413 | ↓ |
| | | WSCAD Universe 281-634/281-413 | ↓ |
| | | ZUKEN Portal 281-634/281-413 | ↓ |

## 1 Compatible Products

### 1.1 Required Accessories

### 1.1.1 End plate

### 1.1.1.1 End plate

**Item No.: 281-340**
End and intermediate plate; 2.5 mm thick; gray

**Item No.: 281-341**
End and intermediate plate; 2.5 mm thick; orange

### 1.2 Optional Accessories

### 1.2.1 DIN-rail

### 1.2.1.1 Mounting accessories

**Item No.: 210-196**
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

**Item No.: 210-198**
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

**Item No.: 210-508**
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored

**Item No.: 210-197**
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

## 1.2.1.1 Mounting accessories

**Item No.: 210-506**
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

**Item No.: 210-114**
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

**Item No.: 210-118**
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

**Item No.: 210-115**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored

**Item No.: 210-112**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored

**Item No.: 210-504**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored

**Item No.: 210-113**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

**Item No.: 210-505**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

## 1.2.2 Ferrule

## 1.2.2.1 Ferrule

**Item No.: 216-241**
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

**Item No.: 216-242**
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item No.: 216-243**
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

**Item No.: 216-244**
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

**Item No.: 216-246**
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

**Item No.: 216-106**
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

## 1.2.3 Installation

## 1.2.3.1 Cover

**Item No.: 709-154**
Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

## 1.2.3.2 Cover carrier

**Item No.: 709-168**
Cover carrier; Type 2; incl. fixing/retaining screws and knurled nut; suitable for 283 to 285 Series rail-mounted terminal blocks; suitable for 279 to 281 Series double- and triple-deck terminal blocks; suitable for 780 to 785, 775, 776 and 777 Series TOP-JOB® rail-mounted terminal blocks; suitable for 280 Series sensor and actuator terminal blocks; suitable for 282 Series disconnect/test terminal blocks for transformer circuits; gray

## 1.2.3.3 Mounting accessories

Item No.: 209-106
Mounting carrier; for isolated mounting on DIN 35 rails; gray

Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

## 1.2.4 Insulation stop

### 1.2.4.1 Insulation stop

Item No.: 281-470
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white

Item No.: 281-471
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

Item No.: 281-472
Insulation stop; 0.75 - 1.5 mm²; 5 pieces/strip; dark gray

## 1.2.5 Jumper

### 1.2.5.1 Jumper

Item No.: 281-490
Jumper; 10-way; insulated; gray

Item No.: 281-482
Jumper; 2-way; insulated; gray

Item No.: 281-492
Jumper; 2-way; insulated; gray

Item No.: 281-483
Jumper; 3-way; insulated; gray

Item No.: 281-485
Jumper; 5-way; insulated; gray

Item No.: 709-110
Wire commoning chain; 2.5 mm²; insulated; black

Item No.: 709-111
Wire commoning chain; 2.5 mm²; insulated; black

Item No.: 709-112
Wire commoning chain; 2.5 mm²; insulated; black

Item No.: 210-103
Wire commoning chain; insulated; black

Item No.: 210-123
Wire commoning chain; insulated; blue

## 1.2.6 Marking

### 1.2.6.1 Marker

Item No.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 793-5501/000-023
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 793-5501/000-017
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 793-5501/000-012
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 793-5501/000-024
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

## 1.2.6.1 Marker

**Item No.: 793-501**
WMB marking card; as card; not stretchable; plain; snap-on type; white

**Item No.: 793-501/000-002**
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

**Item No.: 2009-115/000-006**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

**Item No.: 2009-115/000-007**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

**Item No.: 2009-115/000-023**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

**Item No.: 2009-115/000-017**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

**Item No.: 2009-115/000-012**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

**Item No.: 2009-115/000-024**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

**Item No.: 2009-115**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

**Item No.: 2009-115/000-002**
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

## 1.2.7 Protective warning marker

### 1.2.7.1 Cover

**Item No.: 281-415**
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.8 Tool

### 1.2.8.1 Operating tool

**Item No.: 210-658**
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

**Item No.: 210-720**
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

**Item No.: 210-657**
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation Notes

Circuit-related voltage indications can be created using the following terminal blocks:
281-634/281-434 or 281-634/281-413

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at:: www.wago.com