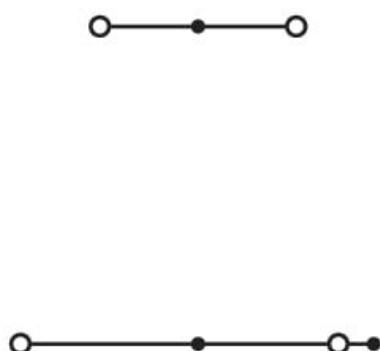


Color: ■ blue



Similar to illustration

## Double-deck terminal block, 281 Series, blue

Fault-free electrical installations are guaranteed with this double-deck terminal block (item number 281-630). The double-deck terminal block also serves as a through terminal block. Ensure that the strip lengths are between 9 mm and 10 mm when connecting conductors to this double-deck terminal block. This product incorporates conductor terminals and utilizes CAGE CLAMP®. Our reliable 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. This double-deck terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 4 mm<sup>2</sup>. It has two levels. You can connect two potentials using the four clamping points. The blue housing is made of polyamide (PA66) for insulation. These through rail-mount terminal blocks are mounted using DIN-35 rails..

## Electrical data

Ratings per			IEC/EN 60947-7-1		
Overvoltage category	III	III	II		
Pollution degree	3	2	2		
Nominal voltage	500 V	-	-		
Rated surge voltage	6 kV	-	-		
Rated current	26 A	-	-		

Power Loss		
Power loss, per pole (potential)	0.676 W	
Rated current $I_N$ for specified power loss	26 A	
Resistance value for specified, current-dependent power loss	0.001 $\Omega$	

**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 Aluminum
Connectable conductor materials (note)	

**Terminating Aluminum Conductors**

WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm<sup>2</sup>/12 AWG if WAGO "Alu-Plus" Contact Paste [249-130](#) is used for termination.

"Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).
- Provides long-term protection against corrosion.

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.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors:  
2.5 mm<sup>2</sup> = 16 A  
4 mm<sup>2</sup> = 22 A

Solid conductor	0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 4 mm <sup>2</sup> / 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	83.5 mm / 3.287 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

blue

Material group

I

Insulation material (main housing)

Polyamide (PA66)

Flammability class per UL94

V0

Fire load

0.055 MJ

Weight

15.3 g

**Environmental requirements**

Processing temperature

-35 ... +85 °C

Continuous operating temperature

-60 ... +105 °C

**Commercial data**

Product Group

1 (Rail Mounted Terminal Blocks)

eCl@ss 10.0

27-14-11-20

eCl@ss 9.0

27-14-11-20

ETIM 9.0

EC000897

ETIM 8.0

EC000897

PU (SPU)

50 pcs

Packaging type

Box

Country of origin

CN

GTIN

4050821703518

Customs tariff number

85369010000

**Environmental Product Compliance**

RoHS Compliance Status

Compliant, No Exemption

**Approvals / Certificates****General approvals****Declarations of conformity and manufacturer's declarations**

Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	IEC 60947	NTR NL-7454/A1	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
CSA CSA Group	C22.2	1505034	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288			
UL Underwriters Laboratories Inc.	UL 1059	E45172			

## Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

## Downloads

## Environmental Product Compliance

## Compliance Search

Environmental Product Compliance 281-630



## Documentation

## Additional Information

Technical Section

pdf  
2246.92 KB

## Bid Text

281-630	19.02.2019	xml 3.36 KB	
281-630	02.03.2017	doc 24.50 KB	

## CAD/CAE-Data

## CAD data

2D/3D Models 281-630



## CAE data

EPLAN Data Portal  
281-630WSCAD Universe  
281-630

ZUKEN Portal 281-630



## 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 End plate

**Item No.: 281-342**

End and intermediate plate; 2.5 mm thick; gray

**Item No.: 281-343**

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

**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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / AWG 14; un-insulated; 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 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white



#### Item No.: 281-471

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip; light gray



#### Item No.: 281-472

Insulation stop; 0.75 - 1.5 mm<sup>2</sup>; 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.: 281-402

Jumper; insulated; gray



#### Item No.: 281-409

Jumper; insulated; gray



#### Item No.: 781-452

Staggered jumper; from 1 to 2; insulated; gray



#### Item No.: 781-453

Staggered jumper; from 1 to 3; insulated; gray



#### Item No.: 781-454

Staggered jumper; from 1 to 4; insulated; gray



#### Item No.: 781-455

Staggered jumper; from 1 to 5; insulated; gray



#### Item No.: 781-456

Staggered jumper; from 1 to 6; insulated; gray

## 1.2.5.1 Jumper

[Item No.: 281-421](#)

Vertical jumper; insulated; gray

[Item No.: 709-110](#)Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black[Item No.: 709-111](#)Wire commoning chain; 2.5 mm<sup>2</sup>; 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 Group marker carrier

[Item No.: 249-105](#)

Group marker carrier; gray

## 1.2.6.2 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

[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 Push-in type wire jumper

## 1.2.7.1 Jumper

[Item No.: 249-126](#)Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black[Item No.: 249-123](#)Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black[Item No.: 249-127](#)Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 250 mm long; black[Item No.: 249-125](#)

Push-in type wire jumper; insulated; 60 mm long; black

## 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

## Installation



Snapping a terminal block onto the DIN-rail.



Removing a terminal block from the assembly.



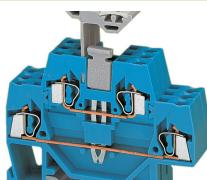
Double-deck terminal blocks accommodate two circuits of different potentials on two decks; different circuits can be differentiated by color coding either deck (280 Series). The lower deck is wider than the upper for easier wiring.

## Conductor termination



The flexible marker carrier, which is placed above the wiring level, can be pushed aside during wiring or commoning. The carrier has two staggered levels for WMB markers that perfectly align with the terminal block decks.

## Commoning



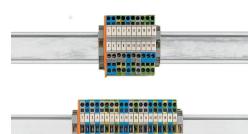
Commoning using an adjacent jumper.  
Push jumpers down until fully inserted!

Commoning with a vertical jumper  
(281-421).  
Push vertical jumper down until fully inserted!

## Commoning



A vertical jumper commons the upper and lower decks, creating a 4-conductor commoned through terminal block in one housing. Two adjacent terminals may be commoned together on the same deck using a push-in adjacent jumper.



With a terminal block width of just 5 mm, an effective width of just 2.5 mm for terminal blocks of same or different potentials can be realized for conductors ranging 0.08 mm<sup>2</sup> ... 2.5 mm<sup>2</sup> (28 ... 14 AWG).

Use 50% less rail space with double-deck terminal blocks.

## Marking



Labeling via WMB Multi Marking System.