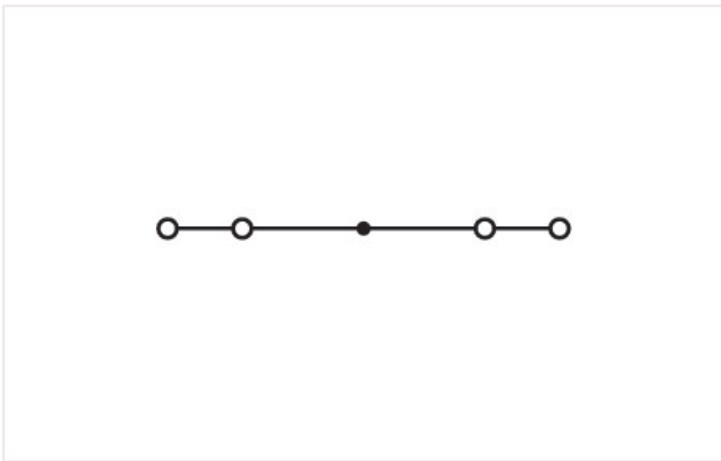
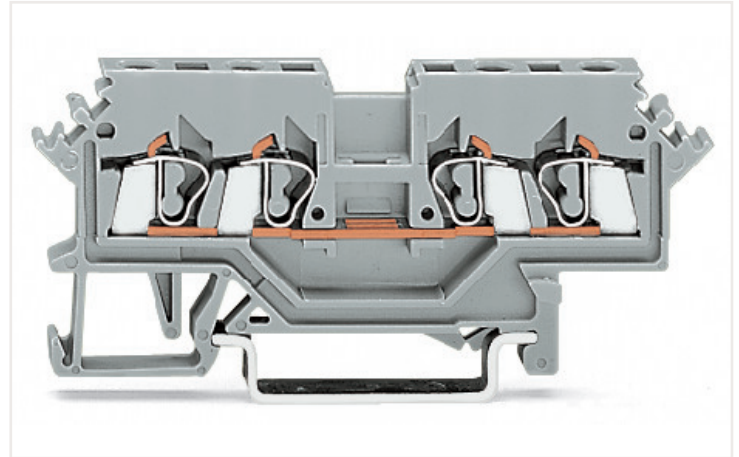
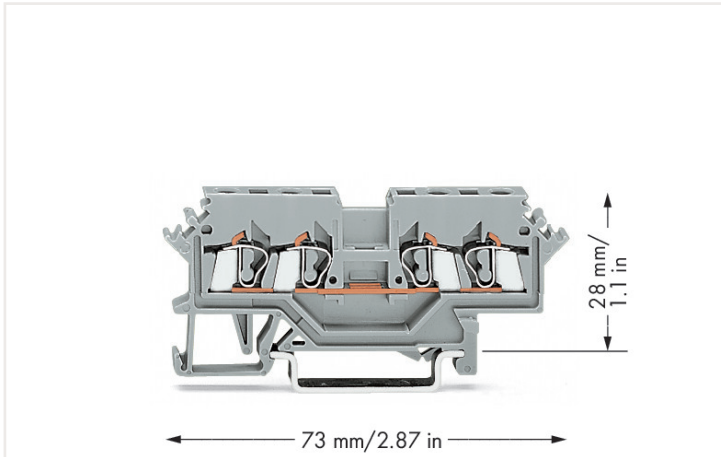


## Data sheet | Item number: 280-621

4-conductor through terminal block; 2.5 mm<sup>2</sup>; lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray

<https://www.wago.com/280-621>



### Electrical data

#### Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	800 V
Rated impulse voltage (III/3)	8 kV
Rated current	24 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

#### Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group C)	600 V
Rated current UL (Use Group C)	20 A

#### Ratings per CSA

Approvals per	CSA 22.2 No 158
Rated voltage CSA (Use Group C)	600 V
Rated current CSA (Use Group C)	24 A

#### Power loss

Power loss, per pole (potential)	0.7661 W
Rated current I <sub>N</sub> for specified power loss	24 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

## Connection data

Connection points	4
Total number of potentials	1
Number of levels	1

## 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 be 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 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Note (conductor cross-section)	12 AWG: THHN, THWN
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

## Physical data

Width	5 mm / 0.197 inches
Height	73 mm / 2.874 inches
Depth from upper-edge of DIN-rail	28 mm / 1.102 inches

## Mechanical data

Mounting type	DIN-35 rail
Marking level	Side marking

## Material data

Note (material data)	<a href="#">Information on material data can be found here</a>
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.135 MJ
Weight	8.2 g

## Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

## Commercial data

eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4044918391092
Customs tariff number VKOrg Germany	85369010000

## Approvals and certificates

### General approvals



Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 60947	2157201.01
CSA DEKRA Certification B.V.	C22.2	1536071
UL Underwriters Laboratories Inc.	UL 1059	E45172

### Approvals for marine applications



Approval	Standard	Certificate name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2
LR Lloyds Register	EN 60947	91/20112 (E9)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 280-621



Documentation

Additional Information

Technical Section

pdf  
2142.18 KB



CAD/CAE-Data

CAD data

2D/3D Models 280-621



CAE data

EPLAN Data Portal  
280-621



WSCAD Universe  
280-621



ZUKEN Portal 280-621



1 Compatible products

1.1 Required accessories

1.1.1 End plate

1.1.1.1 End plate



[Item no.: 280-316](#)

End and intermediate plate; 2.5 mm thick; gray



[Item no.: 280-317](#)

End and intermediate plate; 2.5 mm thick; orange



[Item no.: 280-337](#)

Separator plate; 2 mm thick; oversized; gray



[Item no.: 280-327](#)

Separator plate; 2 mm thick; oversized; 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

### 1.2.1.1 Mounting accessories



**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 End plate

#### 1.2.2.1 End plate



**Item no.: 284-334**

Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; gray



**Item no.: 284-344**

Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks; orange

### 1.2.3 Ferrule

#### 1.2.3.1 Ferrule



**Item no.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item no.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item no.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item no.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item no.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item no.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored



**Item no.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red



**Item no.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated



**Item no.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black



**Item no.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; silver-colored

### 1.2.4 Installation

#### 1.2.4.1 Mounting accessories



**Item no.: 709-167**

Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray



**Item no.: 709-153**

Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent



**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

## 1.2.5 Insulation stop

### 1.2.5.1 Insulation stop



**Item no.: 280-470**

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.: 280-471**

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

**Item no.: 280-472**

Insulation stop; 0.75 - 1 mm<sup>2</sup>; 5 pieces/strip; black

## 1.2.6 Jumper

### 1.2.6.1 Jumper



**Item no.: 280-490**

Jumper; 10-way; insulated; gray



**Item no.: 280-482**

Jumper; 2-way; insulated; gray



**Item no.: 280-492**

Jumper; 2-way; insulated; gray



**Item no.: 280-483**

Jumper; 3-way; insulated; gray



**Item no.: 280-484**

Jumper; 4-way; insulated; gray



**Item no.: 280-485**

Jumper; 5-way; insulated; gray



**Item no.: 280-402**

Jumper; insulated; gray



**Item no.: 280-409**

Jumper; insulated; gray



**Item no.: 280-422**

Jumper; insulated; yellow-green



**Item no.: 780-452**

Staggered jumper; from 1 to 2; insulated; gray



**Item no.: 780-453**

Staggered jumper; from 1 to 3; insulated; gray



**Item no.: 780-454**

Staggered jumper; from 1 to 4; insulated; gray



**Item no.: 780-455**

Staggered jumper; from 1 to 5; insulated; gray



**Item no.: 780-456**

Staggered jumper; from 1 to 6; insulated; gray



**Item no.: 780-457**

Staggered jumper; from 1 to 7; insulated; gray



**Item no.: 780-458**

Staggered jumper; from 1 to 8; insulated; gray



**Item no.: 284-414**

Step-down jumper; from 284/282 to 281/280/279 series; 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.: 709-112**

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

## 1.2.7 Marking

### 1.2.7.1 Double marker carrier



**Item no.: 209-128**

Adaptor; gray

### 1.2.7.2 Group marker carrier



**Item no.: 209-140**

Group marker carrier; gray



**Item no.: 209-141**

Group marker carrier; gray



**Item no.: 209-142**

Group marker carrier; gray



**Item no.: 249-105**

Group marker carrier; gray

### 1.2.7.3 Marker



**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.: 793-501**

WMB marking card; as card; not stretchable; plain; snap-on type; white



**Item no.: 2009-115**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

### 1.2.8 Plug

#### 1.2.8.1 Diode plug



**Item no.: 280-803/281-420**

Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray



**Item no.: 280-803/281-421**

Component plug; 2-pole; with rectifier diode and LED; 10 mm wide; gray

#### 1.2.8.2 Empty component plug housing



**Item no.: 280-803**

Empty component plug housing; 10 mm wide; Type 4; 2-pole; gray

#### 1.2.8.3 LED plug



**Item no.: 280-803/281-415**

Component plug; 2-pole; LED (red); 10 mm wide; gray



**Item no.: 280-803/281-416**

Component plug; 2-pole; LED (red); 10 mm wide; gray



**Item no.: 280-803/281-413**

Component plug; 2-pole; LED (red); 24 VDC; 10 mm wide; gray



**Item no.: 280-803/281-414**

Component plug; 2-pole; LED (red); 48 VDC; 10 mm wide; gray



**Item no.: 280-803/281-411**

Component plug; 2-pole; with diode 1N4007; 10 mm wide; gray

#### 1.2.8.4 Neon indicator module



**Item no.: 280-803/281-417**

Component plug; 2-pole; 10 mm wide; gray



**Item no.: 280-803/281-418**

Component plug; 2-pole; 10 mm wide; gray

### 1.2.9 Protective warning marker

#### 1.2.9.1 Cover



**Item no.: 280-415**

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

## 1.2.10 Push-in type wire jumper

### 1.2.10.1 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

## 1.2.11 Test and measurement

### 1.2.11.1 Testing accessories



**Item no.: 249-107**

B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray



**Item no.: 249-106**

B-type test plug module; modular; 1,50 mm<sup>2</sup>; gray



**Item no.: 249-142**

L-type end module; modular; with rigid contact pin; End module; 1,50 mm<sup>2</sup>; gray



**Item no.: 249-143**

L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray



**Item no.: 249-141**

L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm<sup>2</sup>; gray



**Item no.: 280-419**

Spacer module; modular; bridging commoned terminal blocks; gray



**Item no.: 280-404**

Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm<sup>2</sup> - 4 mm<sup>2</sup> tbs; gray



**Item no.: 209-170**

Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm<sup>2</sup> - 10 mm<sup>2</sup> tbs; gray



**Item no.: 280-418**

Test plug module; modular; suitable for all WAGO 280 and 780 Series rail-mounted terminal blocks with jumper slots in the current bar; gray



**Item no.: 281-407**

Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm<sup>2</sup> - 2.5 mm<sup>2</sup>; 2,50 mm<sup>2</sup>; gray

## 1.2.12 Tool

### 1.2.12.1 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

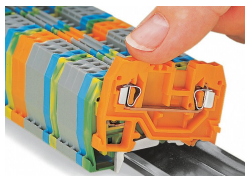


**Item no.: 210-657**

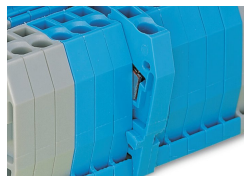
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation notes

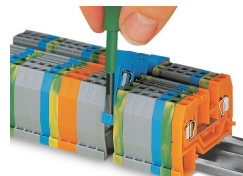
### Installation



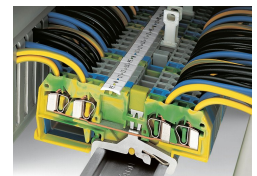
Snapping a terminal block onto the DIN-rail.



Quick assembly keys prevent reverse mounting.



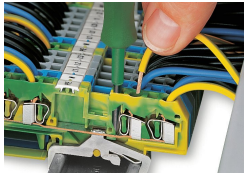
Removing a terminal block from the assembly.



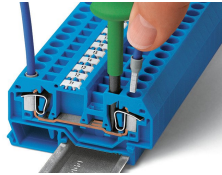
Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).



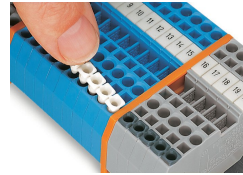
### Conductor termination



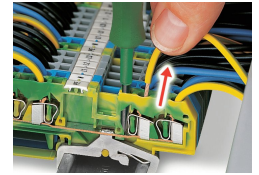
CAGE CLAMP® connection  
Inserting a conductor.



CAGE CLAMP® connection  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.



Inserting insulation stops.

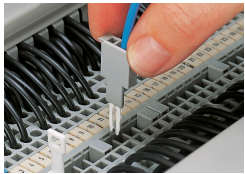


CAGE CLAMP® connection  
Removing a solid conductor.

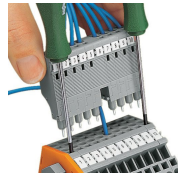
### Commoning

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

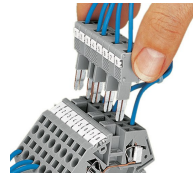
### Testing



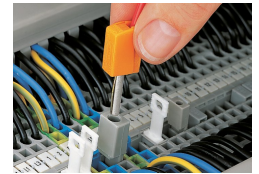
Testing with a test plug.  
Picture shows a test plug fitted with CAGE CLAMP®.



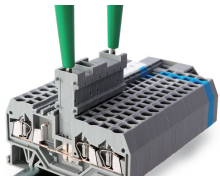
L-type test plug modules fitted with CAGE CLAMP®



B-type test plug modules fitted with CAGE CLAMP®

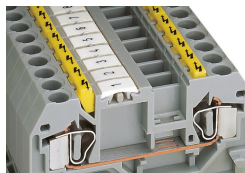


Testing with a test plug.  
Picture shows a test plug adapter (209-170).



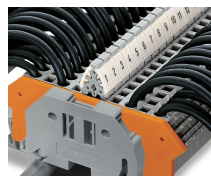
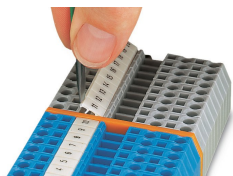
Test plugs modules are directly plugged into the jumper contact slot of the current bar.

### Cover



Protective warning markers inserted into the operating slots

Marking



Labeling via WMB Multi Marking System.

Terminal block marking with double marker carriers (209-128) Terminal blocks with side marking