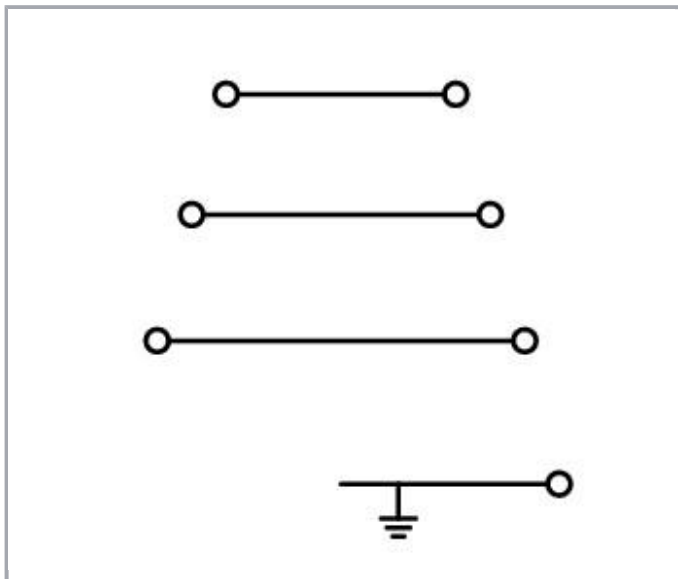
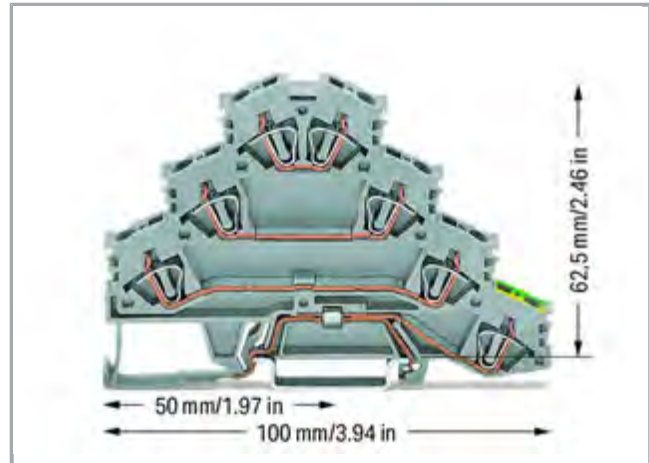


Data sheet | Item number: 281-530

Quadruple-deck rail-mounted terminal block; Rail-mounted terminal block for electric motor wiring; L1 - L2 - L3 - PE; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; gray



Item description

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

**Note:****Terminating Aluminum Conductors**

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 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 mm² = 16 A

4 mm² = 22 A

Data**Electrical data****Ratings per IEC/EN 60664-1**

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	400 V
Rated surge voltage (III/3)	6 kV
Rated current	20 A
Rated current 2	25 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Nominal cross-section	2.5 mm ²
Solid conductor	0.08 ... 4 mm ² / 28 ... 12 AWG

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



Fine-stranded conductor	0.08 ... 4 mm ² / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Total number of connection points	7
Total number of potentials	4
Number of levels	4
Wiring type	Front-entry wiring

Geometrical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-rail	62.5 mm / 2.461 inch
Depth	100 mm / 3.937 inch

Mechanical data

Design	angled
Mounting type	DIN-35 rail
Potential marking	L1 - L2 - L3 - PE
Marking level	Center/side marking

Material Data

Color	gray
Insulation material	Polyamide 66 (PA66)
Fire load	0.356 MJ
Weight	23.2 g

Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4045454017071
Customs tariff number	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947, IEC 60947	NTR NL- 7454/A1

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

CCA



CSA
DEKRA Certification B.V.

C22.2 No. 158

1505034



KEMA/KEUR
DEKRA Certification B.V.

EN 60947

71-
107288

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	20- HG1941090- PDA
	BV Bureau Veritas S.A.	EN 60947	07436/E0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	LR Lloyds Register	EN 60947	91/20112 (E9)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	-	20170731- E45172

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

Compatible products

ferrule



Item no.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated



Item no.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item no.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



Item no.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



Item no.: 216-205
Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow



Item no.: 216-206
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue



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.: 216-301

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

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

 **Item no.: 216-302**
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green

Carrier rail

 **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

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

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

 **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

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

 **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.: 210-197**
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

 **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.: 210-504**
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

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

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

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

check

 **Item no.: 210-136**
Test plug; 2 mm Ø; with 500 mm cable; red

 **Item no.: 210-137**
Test plug; 2.3 mm Ø; with 500 mm cable; yellow

tools

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

**Item no.: 210-657**

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

**Item no.: 210-658**

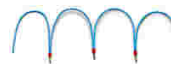
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short

**Item no.: 210-720**

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

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**Jumper****Item no.: 210-103**

Wire commoning chain; insulated; black

**Item no.: 210-123**

Wire commoning chain; insulated; blue

**Item no.: 281-482**

Jumper; insulated; gray

**Item no.: 281-483**

Jumper; 3-way; insulated; gray

**Item no.: 281-485**

Jumper; 5-way; insulated; gray

**Item no.: 281-490**

Jumper; 10-way; insulated; gray

**Item no.: 281-492**

Jumper; 2-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**Push-In type wire jumper****Item no.: 249-123**Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black

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

**Item no.: 249-125**

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

**Item no.: 249-126**Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black**Item no.: 249-127**Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black**Marking accessories****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

**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.: 2009-115/000-012**

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

**Item no.: 2009-115/000-017**

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

**Item no.: 2009-115/000-023**

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

**Item no.: 2009-115/000-024**

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

**Item no.: 249-105**

Group marker carrier; gray

**Item no.: 709-177**

Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; translucent

**Item no.: 709-178**

Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; white

**Item no.: 709-196**

Marking strips; for laser printer; translucent

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

**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.: 793-501/000-005**

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

**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.: 793-501/000-012**

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

**Item no.: 793-501/000-017**

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

**Item no.: 793-501/000-023**

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

**Item no.: 793-501/000-024**

WMB marking card; as card; not stretchable; 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.: 793-5501/000-005**

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.: 793-5501/000-006**

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

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

**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.: 793-5501/000-017**

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.: 793-5501/000-023**

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.: 793-5501/000-024**

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

assembling**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

Downloads**Documentation****Bid Text**

281-530

GAEB X81 - Datei

281-530

doc - Datei

Additional Information

Technical explanations

CAD/CAE-Data**CAD data**

2D/3D Models 281-530

CAE data

EPLAN Data Portal 281-530

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



WSCAD Universe 281-530

ZUKEN Portal 281-530

Installation Notes

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



In addition to rail-mount terminal blocks for electric motor wiring, special versions are also available.

- Version **without** ground contact and only two potentials:



These terminal blocks were custom designed to support additional functions, such as engine brakes or temperature sensors. Sharing a common profile, this terminal block version can be put next to the appropriate electric motor wiring terminal block without using intermediate plates. That makes the rail assembly easier to understand and wire. This also prevents wiring errors as no conductor entry is unused.

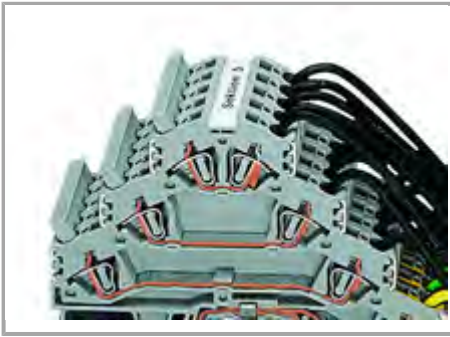
- Version **without** ground contact and with three potentials:



Clearly designated clamping units are the primary advantage to this terminal block design. When using devices with protective insulation for example, there are no open ground clamping units that could create confusion.

Commoning

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



Commoning using comb-style jumper bars.

Push comb-style jumper bars down until fully inserted.

Group marking via marking strips (Item No. 709-177)

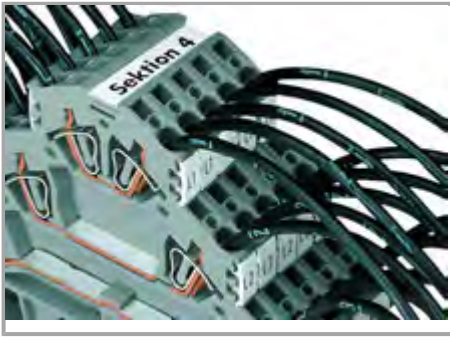
Testing



Testing with voltage tester.

Marking

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



Marking clamping points via WMB Multi Marking System.

Marking a group of terminal blocks via marking strip.

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