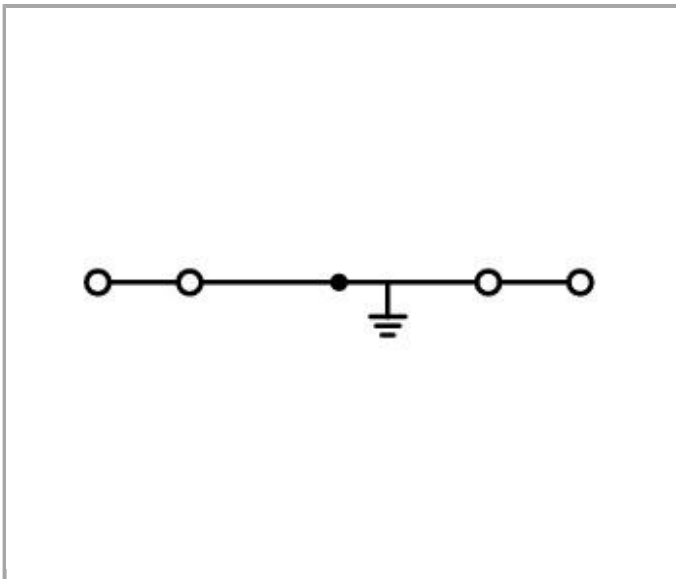
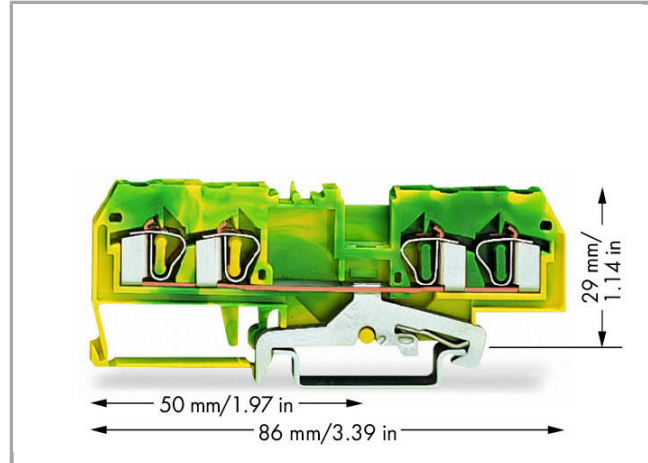
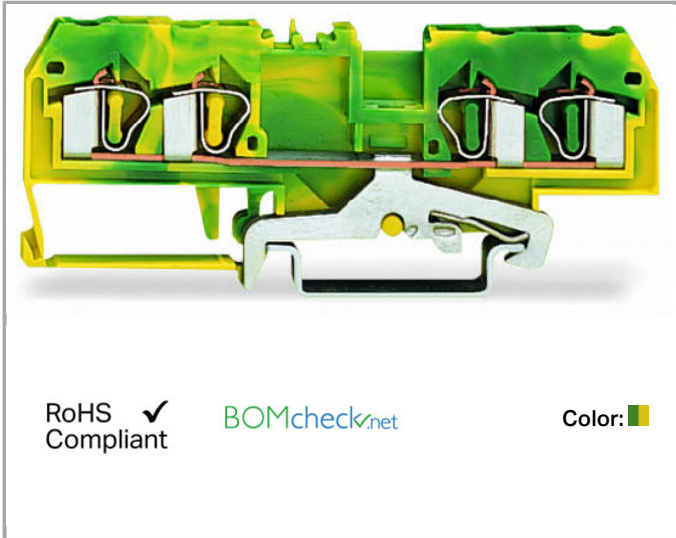


Data sheet | Item number: 281-657

4-conductor ground terminal block; 4 mm²; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®



281-657



Item description

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 (14 AWG) = 16 A

4 mm² (12 AWG) = 22 A

Data

Connection data

| | |
|-----------------------------------|--|
| Connection technology | CAGE CLAMP® |
| Actuation type | Operating tool |
| Connectable conductor materials | Copper Aluminum |
| Solid conductor | 0.08 ... 4 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 4 mm ² / 28 ... 12 AWG |
| Strip length | 9 ... 10 mm / 0.35 ... 0.39 inch |
| Total number of connection points | 4 |
| Total number of potentials | 1 |
| Number of levels | 1 |
| Type of wiring | Front-entry wiring |

Geometrical Data

| | |
|---------------------------------------|--------------------|
| Width | 6 mm / 0.236 inch |
| Height from upper-edge of DIN-35 rail | 29 mm / 1.142 inch |
| Depth | 86 mm / 3.386 inch |

Mechanical data

| | |
|------------------|----------------|
| Design | horizontal |
| Type of mounting | DIN-35 rail |
| Marking level | Center marking |

Material Data





| | |
|---------------------|----------------------|
| Color | green-yellow |
| Insulating material | Polyamide 66 (PA 66) |
| Fire load | 0.193 MJ |
| Weight | 17.65 g |

Commercial data




| | |
|--------------------|----------------------------------|
| Product Group | 1 (Rail Mounted Terminal Blocks) |
| Country of origin | DE |
| GTIN | 4044918512008 |
| Customs Tariff No. | 85369010000 |

Approvals / Certificates

Country specific Approvals


| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------|
|  | CCA DEKRA Certification B.V. | EN 60947 | NTR NL-7454/A1 |
|  | CCA DEKRA Certification B.V. | IEC 60947 | NTR NL-7454/A1 |
|  | 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 | - | 14-HG1293677-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 UL International Germany GmbH | UL 1059 | E45172 |

Compatible products

Jumper

| | | |
|--|---|---------|
|  | Item no.: 210-103 Wire commoning chain; insulated; 50 connections | 210-103 |
|  | Item no.: 210-123 Wire commoning chain; insulated; 50 connections | 210-123 |
|  | Item no.: 249-123 Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm ² | 249-123 |
|  | Item no.: 249-125 Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm ² | 249-125 |
|  | Item no.: 249-126 Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm ² | 249-126 |
|  | Item no.: 249-127 Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm ² | 249-127 |
|  | Item no.: 281-402 Adjacent jumper; insulated; IN = IN terminal block | 281-402 |
|  | Item no.: 281-409 Alternate jumper; insulated; IN = IN terminal block | 281-409 |
|  | Item no.: 281-422 Adjacent jumper; insulated; IN = IN terminal block | 281-422 |

| | | |
|--|---|---------|
|  | Item no.: 281-482 Comb-style jumper bar; insulated; 2-way; IN = IN terminal block | 281-482 |
|  | Item no.: 281-483 Comb-style jumper bar; insulated; 3-way; IN = IN terminal block | 281-483 |
|  | Item no.: 281-485 Comb-style jumper bar; insulated; 5-way; IN = IN terminal block | 281-485 |
|  | Item no.: 281-490 Comb-style jumper bar; insulated; 10-way; IN = IN terminal block | 281-490 |
|  | Item no.: 281-492 Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block | 281-492 |
|  | Item no.: 709-110 Wire commoning chain; insulated; 4 connections; 3 x 110 mm | 709-110 |
|  | Item no.: 709-111 Wire commoning chain; insulated; 3 connections; 2 x 120 mm | 709-111 |
|  | Item no.: 709-112 Wire commoning chain; insulated; 3 connections; 2 x 170 mm | 709-112 |
|  | Item no.: 781-452 Staggered jumper; insulated; from 1 to 2; Spacing: 6 mm | 781-452 |
|  | Item no.: 781-453 Staggered jumper; insulated; from 1 to 3; Spacing: 6 mm | 781-453 |
|  | Item no.: 781-454 Staggered jumper; insulated; from 1 to 4; Spacing: 6 mm | 781-454 |
|  | Item no.: 781-455 Staggered jumper; insulated; from 1 to 5; Spacing: 6 mm | 781-455 |
|  | Item no.: 781-456 Staggered jumper; insulated; from 1 to 6; Spacing: 6 mm | 781-456 |
| assembling | | |
|  | Item no.: 209-106 Mounting carrier; for isolated mounting on DIN 35 rails | 209-106 |
|  | Item no.: 709-153 Cover; Type 1; suitable for cover carrier, type 1; 1 m long | 709-153 |
| 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 | 210-112 |
|  | Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715 | 210-113 |
|  | Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715 | 210-114 |
|  | 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 | 210-115 |

| | | |
|--|---|---------|
|  | Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | 210-118 |
|  | Item no.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715 | 210-196 |
|  | Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715 | 210-197 |
|  | Item no.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | 210-198 |
|  | Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715 | 210-504 |
|  | Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715 | 210-505 |
|  | Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715 | 210-506 |
|  | Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715 | 210-508 |
| Insulation stop | | |
|  | Item no.: 281-470 Insulation stop; 0.08 - 0.2 mm ² "s" (0.14 mm ² "f-st"); 5 pieces/strip | 281-470 |
|  | Item no.: 281-471 Insulation stop; 0.25 - 0.5 mm ² ; 5 pieces/strip | 281-471 |
|  | Item no.: 281-472 Insulation stop; 0.75 - 1.5 mm ² ; 5 pieces/strip | 281-472 |
| General accessories | | |
|  | Item no.: 249-105 Group marker carrier | 249-105 |
|  | Item no.: 249-147 B-type test plug module; modular | 249-147 |
|  | Item no.: 249-148 B-type spacer module; modular; e.g., for bridging commoned terminal blocks | 249-148 |
|  | Item no.: 280-404 Test plug adapter; 5 mm wide; for test plug 210-137 (2.3 mm Ø); suitable for 1.5 mm ² - 4 mm ² tbs | 280-404 |
|  | Item no.: 281-407 Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm ² - 2.5 mm ² | 281-407 |
|  | Item no.: 281-418 Test plug module; modular; suitable for all WAGO 281, 776, 777 and 781 series rail-mounted terminal blocks with jumper slots in the current bar | 281-418 |
|  | Item no.: 281-419 Spacer module; modular; bridging commoned terminal blocks | 281-419 |

Protective Warning Marker



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

281-415

check



Item no.: 209-170
Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm² - 10 mm² tbs

209-170

ferrule



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

216-106



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

216-201



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

216-202



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

216-203



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

216-204



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

216-205



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

216-206



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

216-241



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

216-242



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

216-243



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

216-244



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

216-246

Item no.: 216-301
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated

216-301



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

216-302

End plate



















Item no.: 281-334
End and intermediate plate; 2.5 mm thick
















281-334



Item no.: 281-335
End and intermediate plate; 2.5 mm thick

281-335

| | | |
|--|--|----------------------|
|  | Item no.: 281-338 Separator plate; 2 mm thick; oversized | 281-338 |
|  | Item no.: 281-339 Separator plate; 2 mm thick; oversized | 281-339 |
| Marking accessories | | |
|  | Item no.: 2009-115 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 |
|  | Item no.: 2009-115/000-002 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-UUZ |
|  | Item no.: 2009-115/000-006 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-UU6 |
|  | Item no.: 2009-115/000-007 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-UU7 |
|  | Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-U12 |
|  | Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-U17 |
|  | Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-U23 |
|  | Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-115 /UUU-U24 |
|  | Item no.: 209-140 Group marker carrier | 209-140 |
|  | Item no.: 209-141 Group marker carrier | 209-141 |
|  | Item no.: 209-142 Group marker carrier | 209-142 |
|  | Item no.: 209-185 Adaptor | 209-185 |
|  | Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 |
|  | Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /UUU-UUZ |

| | | |
|--|--|----------------------|
|  | Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-005 |
|  | Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-006 |
|  | Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-007 |
|  | Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-012 |
|  | Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-017 |
|  | Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-023 |
|  | Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type | 793-501 /000-024 |
|  | 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 | 793-5501 |
|  | 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 | 793-5501 /000-002 |
|  | Item no.: 793-5501/000-005 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-005 |
|  | Item no.: 793-5501/000-006 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-006 |
|  | Item no.: 793-5501/000-007 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-007 |
|  | Item no.: 793-5501/000-012 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-012 |
|  | Item no.: 793-5501/000-017 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-017 |
|  | Item no.: 793-5501/000-023 WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type | 793-5501 /000-023 |



Item no.: 793-5501/000-024
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-024

tools



Item no.: 210-657
Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short

210-657



Item no.: 210-658
Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short; angled

210-658



Item no.: 210-720
Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm

210-720

Downloads

Documentation

Bid Text

| | | | |
|--------------------------|-------------|----------------|----------|
| 281-657 Reihenklennen | Apr 4, 2012 | doc 24.6 kB | Download |
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Additional Information

| | | |
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CAD/CAE - Smart Data

CAD data

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Subject to changes.