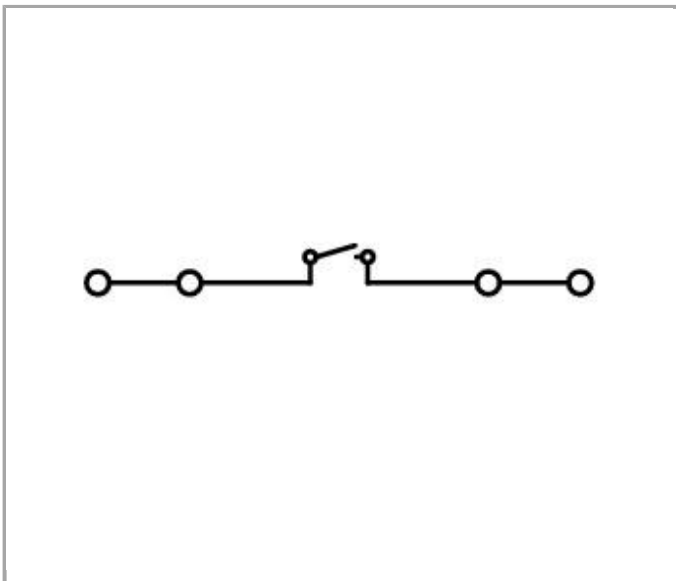
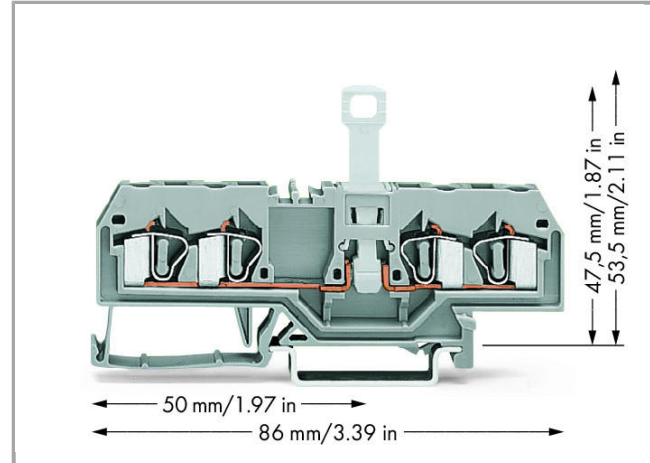
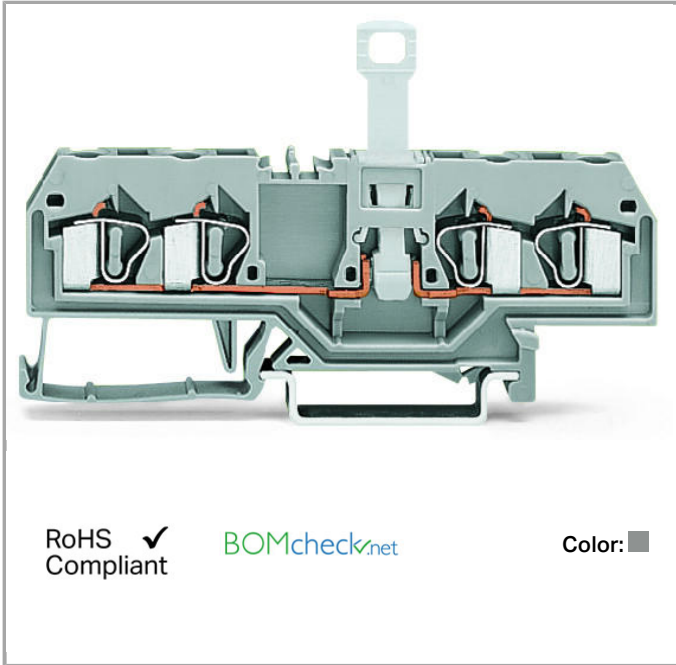


Data sheet | Item number: 281-659

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



281-659



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

Electrical data

Ratings per IEC/EN 60664-1

| | |
|---------------------------------|-------|
| Rated voltage (III / 3) | 400 V |
| Rated impulse voltage (III / 3) | 6 kV |
| Rated current | 10 A |

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 | 2 |
| 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 | 53.5 mm / 2.106 inch |
| Depth | 86 mm / 3.386 inch |

Mechanical data

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

Material Data





| | |
|---------------------|----------------------|
| Color | gray |
| Insulating material | Polyamide 66 (PA 66) |
| Fire load | 0.218 MJ |
| Weight | 13.345 g |

Commercial data

| | |
|--------------------|----------------------------------|
| Product Group | 1 (Rail Mounted Terminal Blocks) |
| Country of origin | DE |
| GTIN | 4044918837781 |
| Customs Tariff No. | 85365080990 |





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 |
| | CSA DEKRA Certification B.V. | UL 1059 | 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 Underwriters Laboratories Inc. | UL 1059 | 20170731- E45172 |



















Compatible products




















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 | /000-007 | 2009-115 |
|  | Item no.: 2009-115/000-012 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-012 | 2009-115 |
|  | Item no.: 2009-115/000-017 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-017 | 2009-115 |
|  | Item no.: 2009-115/000-023 WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-023 | 2009-115 |
|  | Item no.: 2009-115/000-024 WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /000-024 | 2009-115 |
|  | 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 | /000-002 | 793-501 |
|  | Item no.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type | /000-005 | 793-501 |
|  | Item no.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type | /000-006 | 793-501 |
|  | Item no.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type | /000-007 | 793-501 |
|  | Item no.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type | /000-012 | 793-501 |
|  | Item no.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type | /000-017 | 793-501 |
|  | Item no.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type | /000-023 | 793-501 |
|  | Item no.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type | /000-024 | 793-501 |
|  | 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 |
| General accessories | | |
|  | Item no.: 209-107 Test socket; insulated; 2 mm Ø | 209-107 |
|  | Item no.: 209-108 Test socket; insulated; 2.3 mm Ø | 209-108 |
|  | Item no.: 249-105 Group marker carrier | 249-105 |
|  | Item no.: 709-170 Disconnect lock; for disconnect tab used on 280/281 and 769 Series disconnect terminal blocks | 709-170 |
| 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 |
| check | | |
|  | Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable | 210-136 |
|  | Item no.: 210-137 Test plug; 2.3 mm Ø; with 500 mm cable | 210-137 |

| | | |
|--|---|---------|
|  | Item no.: 249-141 L-type test plug module; modular; with spring-loaded contact pin; Center module | 249-141 |
| Insulation stop | | |
|  | Item no.: 281-470 Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip | 281-470 |
|  | Item no.: 281-471 Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip | 281-471 |
|  | Item no.: 281-472 Insulation stop; 0.75 - 1.5 mm²; 5 pieces/strip | 281-472 |
| 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.: 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 |
| Protective Warning Marker | | |
|  | Item no.: 281-415 Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks | 281-415 |
| 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 |
| 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 |
| ferrule | | |
|  | Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated | 216-106 |
|  | Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated | 216-201 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated | 216-202 |
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated | 216-203 |
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated | 216-204 |
|  | Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated | 216-205 |
|  | Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated | 216-206 |

| | | |
|--|--|---------|
|  | Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 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 mm ² / 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 mm ² / 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 mm ² / 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 mm ² / 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 mm ² / AWG 24; insulated; electro-tin plated | 216-301 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 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 |

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

| | | |
|---------|----------------|----------|
| 281-659 | doc 25.1 kB | Download |
|---------|----------------|----------|

CAD/CAE - Smart Data**CAD data**

| | | |
|---------------------|-----|----------|
| 3D Download 281-659 | URL | Download |
|---------------------|-----|----------|



Subject to changes.
