

Data sheet | Item number: 254-651

Stackable PCB terminal block; 2.5 mm²; Pin spacing 10/10.16 mm; 1-pole;
PUSH WIRE®; 2,50 mm²; gray

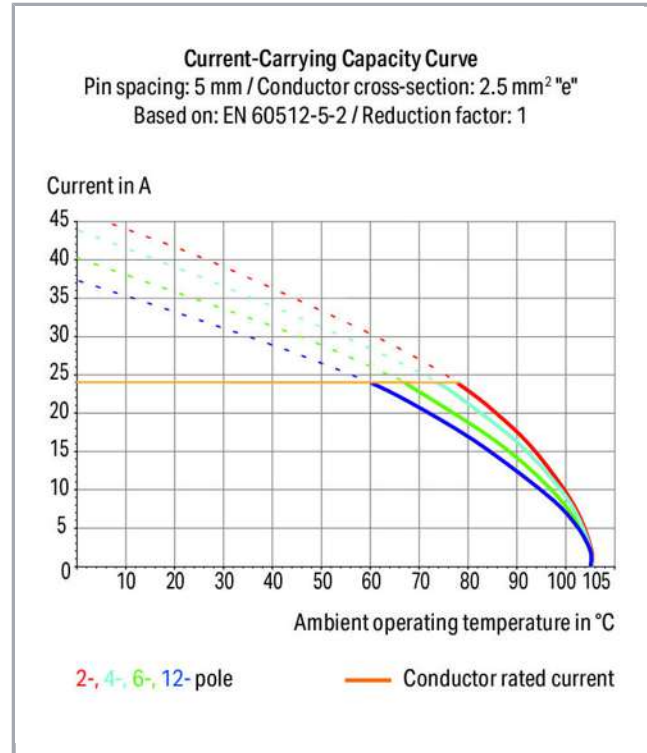


www.wago.com/254-651



RoHS Compliant

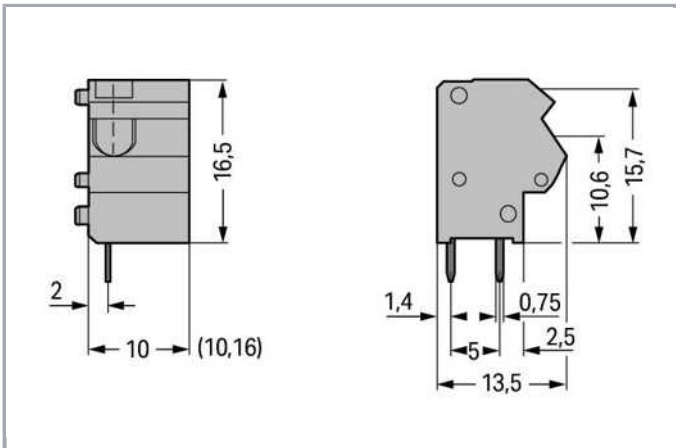
Color:



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

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Item description

- Modular PCB terminal blocks with PUSH WIRE[®] connection and screwdriver actuation for custom terminal strip assemblies
- Push-in termination of solid and ferruled conductors
- Test socket for 2 mm Ø test plug
- Save space on the PCB, just 8.9 mm deep
- Also available with 2-conductor connection

Data

Electrical data

Ratings per IEC/EN 60664-1

| Ratings per | IEC/EN 60664-1 |
|---------------------------------|---|
| Rated voltage (III / 3) | 630 V |
| Rated impulse voltage (III / 3) | 8 kV |
| Rated voltage (III / 2) | 1000 V |
| Rated impulse voltage (III / 2) | 8 kV |
| Rated voltage (II / 2) | 1000 V |
| Rated impulse voltage (II / 2) | 8 kV |
| Rated current | 24 A |
| Legend (ratings) | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

Approvals per UL 1059

| | |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
|--------------------------------|-------|

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



| | |
|--------------------------------|---------|
| Rated current UL (Use Group B) | 10 A |
| Rated voltage UL (Use Group D) | 300 V |
| Rated current UL (Use Group D) | 10 A |
| Approvals per | UL 1059 |

Approvals per CSA

| | |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 10 A |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A |

Connection data

| | |
|---|---|
| Connection technology | PUSH WIRE® |
| Actuation type | Operating tool |
| Solid conductor | 0.5 ... 2.5 mm ² / 20 ... 12 AWG |
| Fine-stranded conductor with ferrule with plastic collar | 0.5 ... 1.5 mm ² |
| Fine-stranded conductor with ferrule without plastic collar | 0.5 ... 1.5 mm ² |
| Strip length | 10 ... 12 mm / 0.39 ... 0.47 inch |
| Conductor entry angle to the PCB | 45° |
| No. of poles | 1 |
| Total number of connection points | 1 |
| Total number of potentials | 1 |
| Number of connection types | 1 |
| Number of levels | 1 |
| Note (conductor cross-section) | 12 AWG: THHN, THWN |

Geometrical Data

| | |
|-----------------------------------|------------------------------|
| Pin spacing | 10/10.16 mm / 0.394/0.4 inch |
| Width | 11.7 mm / 0.461 inch |
| Height | 19.7 mm / 0.776 inch |
| Height from the surface | 15.7 mm / 0.618 inch |
| Depth | 13.5 mm / 0.531 inch |
| Solder pin length | 4 mm |
| Solder pin dimensions | 0.5 x 0.75 mm |
| Drilled hole diameter (tolerance) | 1.1 (+0.1) mm |

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



PCB contact

| | |
|-------------------------------------|------------------------------------|
| PCB contact | THT |
| Solder pin arrangement | within the terminal block, in line |
| Number of solder pins per potential | 2 |

Material Data

| | |
|-----------------------------|--|
| Color | gray |
| Material group | I |
| Insulating material | Polyamide 66 (PA 66) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Chrome nickel spring steel (CrNi) |
| Contact material | Electrolytic copper (E _{Cu}) |
| Contact plating | tin-plated |
| Fire load | 0.03 MJ |
| Weight | 1.5 g |

Environmental Requirements


| | |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +105 °C |
|-------------------------|-----------------|

Commercial data

| | |
|--------------------|---------------------|
| Product Group | 4 (Printed Circuit) |
| Packaging type | BOX |
| Country of origin | PL |
| GTIN | 4044918941013 |
| Customs Tariff No. | 8536901000 |

Approvals / Certificates



Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------|--------------------------|------------------|
|  | CCA DEKRA Certification B.V. | EN 60947 | NTR NL 7375 |
| | CSA DEKRA Certification B.V. | C22.2 | LR 18677- 38 |


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Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 14- HG1241537- PDA |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAE000016Z |

UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|--------------------------|------------------|
|  | UR Underwriters Laboratories Inc. | UL 1059 | E45172 sec. 6 |

Counterpart

Compatible products

check

**Item no.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

www.wago.com/210-136

tools

**Item no.: 210-657**

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

www.wago.com/210-657**Item no.: 210-658**

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

www.wago.com/210-658

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Item no.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

www.wago.com/210-720

End plate



Item no.: 254-100
End plate; 1 mm thick; snap-fit type; gray

www.wago.com/254-100



Item no.: 254-200
End plate; 1 mm thick; snap-fit type; dark gray

www.wago.com/254-200



Item no.: 254-300
End plate; 1 mm thick; snap-fit type; light gray

www.wago.com/254-300



Item no.: 254-400
End plate; 1 mm thick; snap-fit type; blue

www.wago.com/254-400



Item no.: 254-600
End plate; 1 mm thick; snap-fit type; orange

www.wago.com/254-600



Item no.: 254-700
End plate; 1 mm thick; snap-fit type; light green

www.wago.com/254-700

ferrule



Item no.: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

www.wago.com/216-101



Item no.: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

www.wago.com/216-102



Item no.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-103



Item no.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

www.wago.com/216-104



Item no.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

www.wago.com/216-121



Item no.: 216-122
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

www.wago.com/216-122



Item no.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-123



Item no.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

www.wago.com/216-124



Item no.: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-141
















Item no.: 216-142
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-142

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| | | |
|---|--|--|
|  | Item no.: 216-143 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-143 |
|  | Item no.: 216-144 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-144 |
|  | Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | www.wago.com/216-201 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | www.wago.com/216-202 |
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | www.wago.com/216-203 |
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | www.wago.com/216-204 |
|  | Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | www.wago.com/216-221 |
|  | Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | www.wago.com/216-222 |
|  | Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | www.wago.com/216-223 |
|  | Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | www.wago.com/216-224 |
|  | 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; white | www.wago.com/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; gray | www.wago.com/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; red | www.wago.com/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; black | www.wago.com/216-244 |
|  | Item no.: 216-262 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; gray | www.wago.com/216-262 |
|  | Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red | www.wago.com/216-263 |
|  | Item no.: 216-264 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; black | www.wago.com/216-264 |

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

**Item no.: 216-284**

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

www.wago.com/216-284

Marking accessories**Item no.: 210-332/1000-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1000-202

Item no.: 210-332/1000-204

Marking strips; as a DIN A4 sheet; MARKED; 17-31 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1000-204

Item no.: 210-332/1000-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1000-206

Item no.: 210-332/1016-202

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1016-202

Item no.: 210-332/1016-204

Marking strips; as a DIN A4 sheet; MARKED; 17-31 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1016-204

Item no.: 210-332/1016-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/1016-206

Downloads**Documentation****Additional Information**

Technical explanations

Apr 3, 2019

pdf
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CAD/CAE-Data**CAD data**

2D/3D Models 254-651

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CAE data

EPLAN Data Portal 254-651

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PCB Design

Symbol and Footprint 254-651

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CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

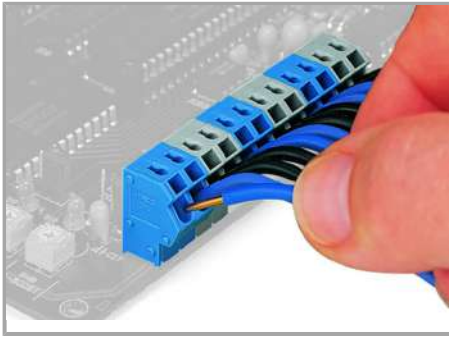
Installation Notes

Inserting a conductor

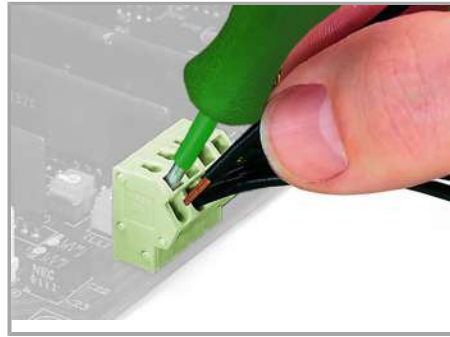
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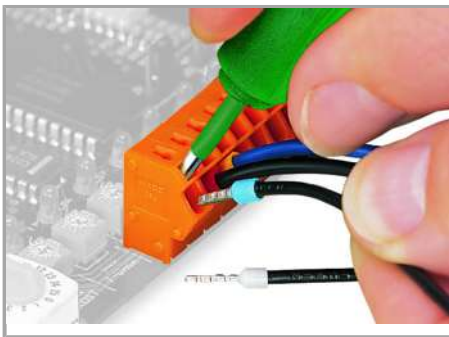
Inserting a solid conductor via push-in termination.



Inserting a tip-bonded conductor via screwdriver.

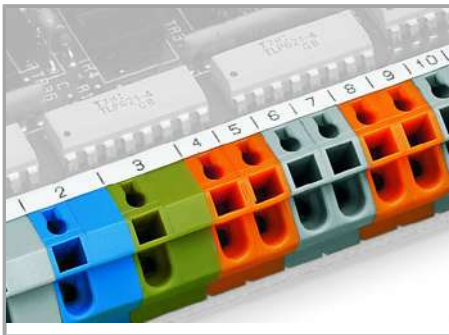


Removing a conductor.

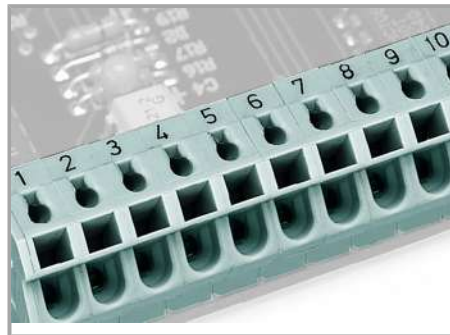


Inserting/removing a ferruled conductor.

Marking



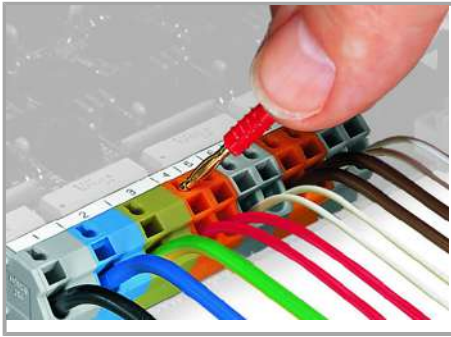
Labeling via self-adhesive marking strips.



Labeling via factory direct marking.

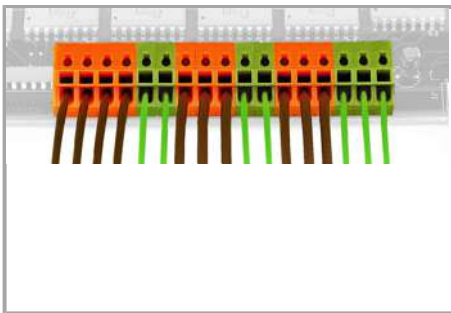
Testing

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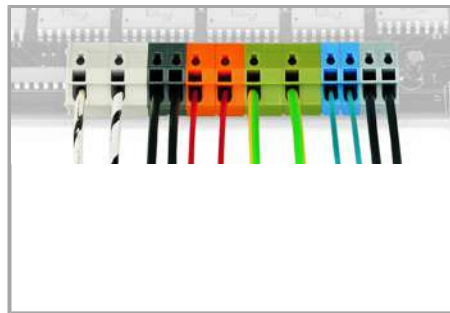


Testing with 2 mm Ø test plug.

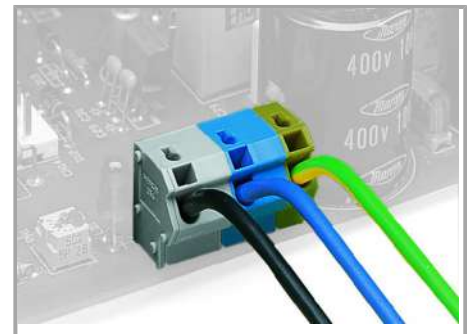
Assembly



Mixed terminal strips can be assembled using different housing colors for the formation of groups.



Mixed terminal strips can be assembled using different pin spacing and housing colors for the formation of groups.



Application example: field-wiring terminal strip

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