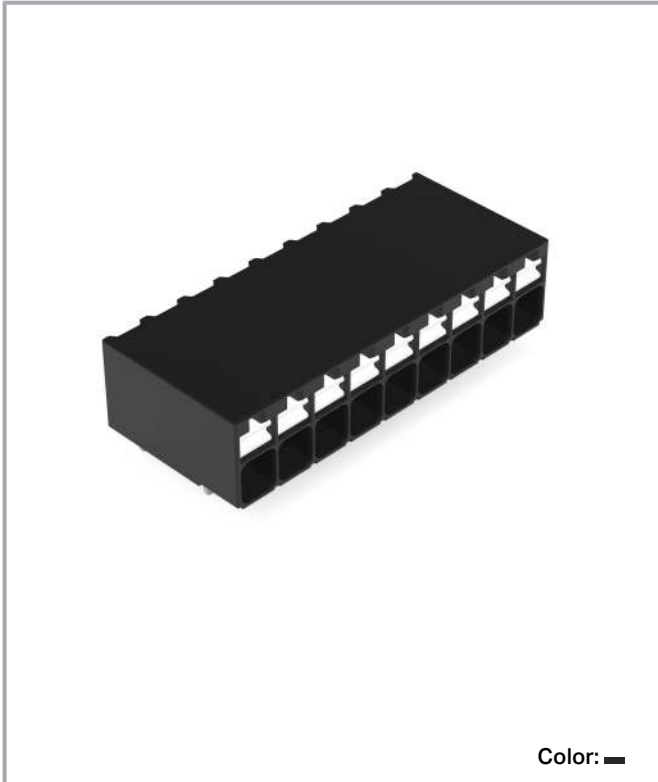


Data sheet | Item number: 2086-1209

THR PCB terminal block; push-button; 1.5 mm²; Pin spacing 3.5 mm; 9-pole;
Push-in CAGE CLAMP®; 1,50 mm²; black



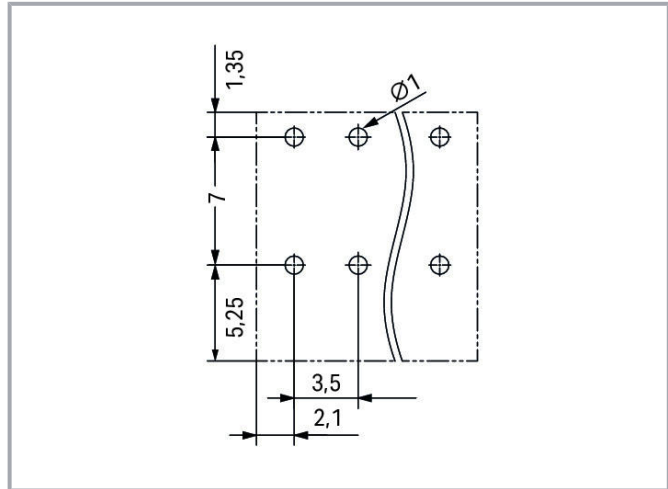
www.wago.com/2086-1209



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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at (262) 255-6222 or 1 800-DIN-RAIL.



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$

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Item description

- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® allows push-in termination of solid and fine-stranded conductors with ferrules
- SMD and THR variants available
- Delivery in tape-and-reel packaging for full integration into SMT soldering process
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction both parallel and perpendicular to the PCB
- Choice of double pin spacing or alternating pin spacing, 3.5 and 5 mm pin spacing

Data

Electrical data

IEC Approvals

| Ratings per | IEC/EN 60664-1 |
|-----------------------------|----------------|
| Rated voltage (III / 3) | 160 V |
| Rated surge voltage (III/3) | 2.5 kV |
| Rated voltage (III/2) | 160 V |
| Rated surge voltage (III/2) | 2.5 kV |
| Nominal voltage (II/2) | 320 V |

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| | |
|----------------------------|---|
| Rated surge voltage (II/2) | 2.5 kV |
| Rated current | 17.5 A |
| Legend (ratings) | (III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2 |

UL Approvals

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

CSA Approvals

| | |
|---------------------------------|-------|
| 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

| | |
|----------------------------|---|
| Total number of potentials | 9 |
| Number of connection types | 1 |
| Number of levels | 1 |

Connection 1

| | |
|---|--|
| Connection technology | Push-in CAGE CLAMP [®] |
| Actuation type | Push-button |
| Solid conductor | 0.14 ... 1.5 mm ² / 24 ... 16 AWG |
| Fine-stranded conductor | 0.14 ... 1.5 mm ² / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 0.75 mm ² |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm ² |
| Strip length | 8 ... 9 mm / 0.31 ... 0.35 inch |
| Conductor connection direction to PCB | 0° |
| Number of poles | 9 |

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



Physical data

| | |
|------------------------------------|------------------------|
| Pin spacing | 3.5 mm / 0.138 inch |
| Width | 32.2 mm / 1.268 inch |
| Height | 10.2 mm / 0.402 inch |
| Height from the surface | 7.8 mm / 0.307 inch |
| Depth | 13.6 mm / 0.535 inch |
| Solder pin length | 2.4 mm |
| Solder pin dimensions | 0.3 x 0.8 mm |
| Plated through-hole diameter (THR) | 1 ^(+0.1) mm |

PCB contact

| | |
|-------------------------------------|--|
| PCB Contact | THR |
| Solder pin arrangement | over the entire terminal strip (in-line) |
| Number of solder pins per potential | 2 |

Material data

| | |
|-----------------------------|--|
| Color | black |
| Insulation material | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Chrome nickel spring steel (CrNi) |
| Contact material | Electrolytic copper (E _{Cu}) |
| Contact plating | tin-plated |
| Weight | 4.2 g |

Environmental requirements

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

Commercial data

| | |
|-----------------------|---------------|
| PU (SPU) | 96 Stück |
| Packaging type | BOX |
| Country of origin | CH |
| GTIN | 4055144089011 |
| Customs tariff number | 85369010000 |



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

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Approvals / Certificates

Country specific Approvals







| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
| | CB DEKRA Certification B.V. | IEC 60947-7-4 | NL-74022 |
|  | CSA DEKRA Certification B.V. | C22.2 | 80060692 |
|  | KEMA/KEUR DEKRA Certification B.V. | EN 60947-7-4 | 71- 119449 |

UL-Approvals








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

Optional accessories

Ferrules


| Ferrule | | |
|---|--|--|
|  | Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-101 |
|  | Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-104 |
|  | Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-102 |
|  | Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated | www.wago.com/216-103 |
|  | Item no.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-142 |
|  | Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | www.wago.com/216-132 |

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

| | | |
|---|---|--|
|  | Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-121 |
|  | 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.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-131 |
|  | Item no.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 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.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | www.wago.com/216-152 |
|  | 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.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated | www.wago.com/216-151 |
|  | 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; silver-colored | 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.: 216-241 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.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-301 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green | www.wago.com/216-302 |



Tools

Operating tool

| | | |
|---|---|--|
|  | Item no.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft | www.wago.com/210-719 |
|---|---|--|

Testing accessories

Testing accessories

| | | |
|--|--|--|
|  | Item no.: 735-500 Test pin; 1 mm Ø; with solder connection for test wire | www.wago.com/735-500 |
|  | Item no.: 859-500 Test pin; 1 mm Ø; with solder connection for test wire | www.wago.com/859-500 |

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



Downloads

Documentation

Additional Information

| | | | |
|------------------------|-------------|-----------------|----------|
| Technical explanations | Apr 3, 2019 | pdf 2.0 MB | Download |
| THR Soldering Process | | pdf 548.2 kB | Download |

CAD files

CAD data

| | | |
|------------------------|-----|----------|
| 2D/3D Models 2086-1209 | URL | Download |
|------------------------|-----|----------|

CAE data

| | | |
|------------------------|-----|----------|
| ZUKEN Portal 2086-1209 | URL | Download |
|------------------------|-----|----------|

Environmental Product Compliance

Compliance Search

| | | |
|---|-----|----------|
| Environmental Product Compliance 2086-1209 THR PCB terminal block; push-button; 1.5 mm ² ; Pin spacing 3.5 mm; 9-pole; Push-in CAGE CLAMP®; 1,50 mm ² ; black | URL | Download |
|---|-----|----------|

Installation Notes

Conductor termination

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



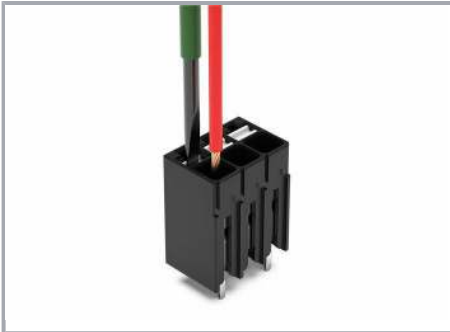
Inserting solid conductor via push-in termination.

Conductor removal



Removing fine-stranded conductors via push-buttons.

Conductor termination



Inserting and removing fine-stranded conductors via push-buttons.

Testing

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



Testing via 1 mm Ø test pin.

Touch contact with current bar.

Marking



Pole marking via direct marking
perpendicular to conductor entry.

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