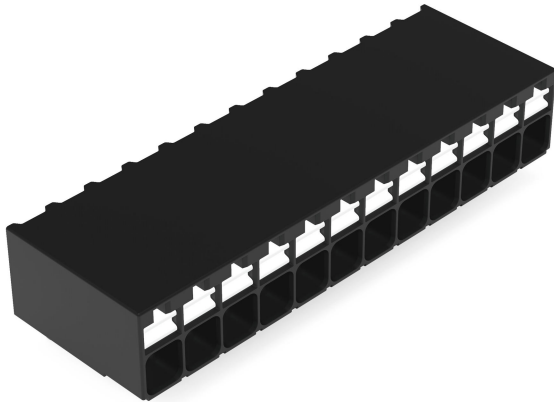


## Data sheet | Item number: 2086-1232

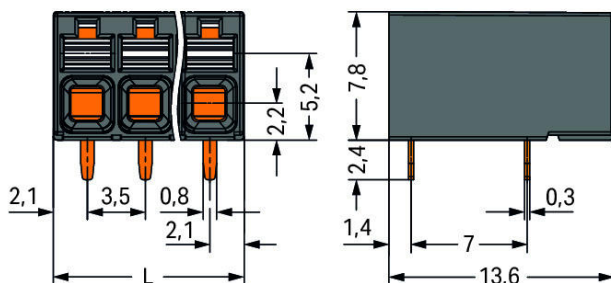
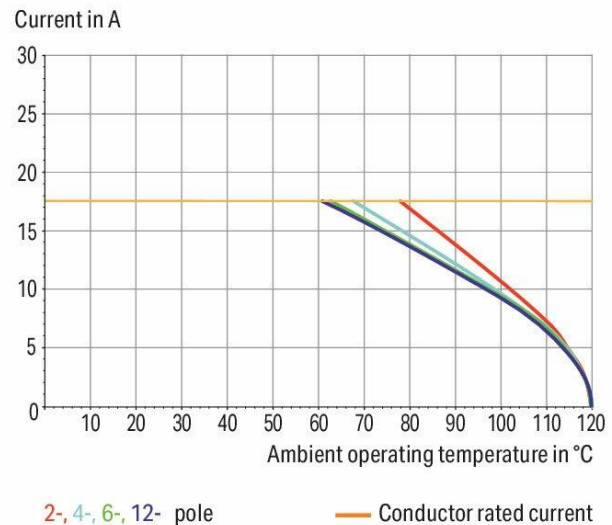
THR PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 12-pole;  
Push-in CAGE CLAMP®; 1,50 mm<sup>2</sup>; black

[www.wago.com/2086-1232](http://www.wago.com/2086-1232)



Color: ■

**Current-Carrying Capacity Curve**  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



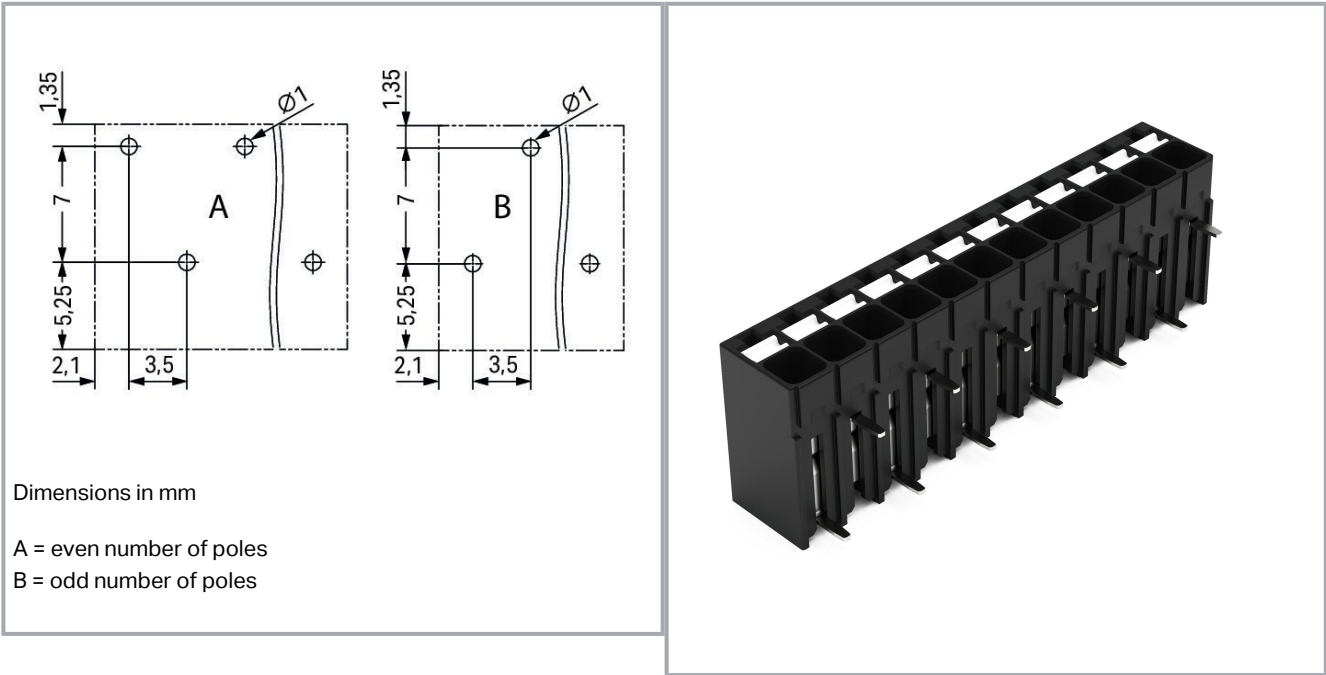
Dimensions in mm

L = (pole no. - 1) x pin spacing + 4.2 mm

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

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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

Ratings per IEC/EN

| Ratings per                 | IEC/EN 60664-1 |
|-----------------------------|----------------|
| Nominal voltage (III/3)     | 250 V          |
| Rated surge voltage (III/3) | 4 kV           |
| Rated voltage (III/2)       | 320 V          |
| Rated surge voltage (III/2) | 4 kV           |
| Nominal voltage (II/2)      | 630 V          |

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|                            |                                                                      |
|----------------------------|----------------------------------------------------------------------|
| Rated surge voltage (II/2) | 4 kV                                                                 |
| Rated current              | 17.5 A                                                               |
| Legend (ratings)           | (III / 2) $\triangleq$ Overvoltage category III / Pollution degree 2 |

### Ratings per UL

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

### Ratings per CSA

|                                 |       |
|---------------------------------|-------|
| 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 | 12 |
| 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 <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor                           | 0.14 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                 |
| Conductor diameter                                | 24 ... 16 AWG                                |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch              |
| Conductor connection direction to PCB             | 0°                                           |
| Pole No.                                          | 12                                           |

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



## Physical data

|                                    |                        |
|------------------------------------|------------------------|
| Pin spacing                        | 3.5 mm / 0.138 inch    |
| Width                              | 42.7 mm / 1.681 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 <sup>(+0.1)</sup> mm |

## PCB contact

|                                     |                                            |
|-------------------------------------|--------------------------------------------|
| PCB Contact                         | THR                                        |
| Solder pin arrangement              | over the entire terminal strip (staggered) |
| Number of solder pins per potential | 1                                          |

## 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 <sub>Cu</sub> ) |
| Contact plating             | tin-plated                             |
| Weight                      | 5.8 g                                  |

## Environmental requirements

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

## Commercial data

|                       |               |
|-----------------------|---------------|
| PU (SPU)              | 72 Stück      |
| Packaging type        | BOX           |
| Country of origin     | CH            |
| GTIN                  | 4055144089516 |
| Customs tariff number | 85369010000   |

## Approvals / Certificates

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

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## Country specific Approvals

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

## Optional accessories

## Ferrule

| Ferrule                                                                           |                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <b>Item no.: 216-101</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored<br><a href="http://www.wago.com/216-101">www.wago.com/216-101</a>                                                          |
|   | <b>Item no.: 216-104</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored<br><a href="http://www.wago.com/216-104">www.wago.com/216-104</a>                                                          |
|  | <b>Item no.: 216-102</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored<br><a href="http://www.wago.com/216-102">www.wago.com/216-102</a>                                                         |
|  | <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated<br><a href="http://www.wago.com/216-103">www.wago.com/216-103</a>                                                                            |
|  | <b>Item no.: 216-142</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92<br><a href="http://www.wago.com/216-142">www.wago.com/216-142</a> |
|  | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated<br><a href="http://www.wago.com/216-132">www.wago.com/216-132</a>                                                                         |
|  | <b>Item no.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored<br><a href="http://www.wago.com/216-121">www.wago.com/216-121</a>                                                          |
|  | <b>Item no.: 216-143</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92<br><a href="http://www.wago.com/216-143">www.wago.com/216-143</a>    |
|  | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored<br><a href="http://www.wago.com/216-131">www.wago.com/216-131</a>                                                         |
|  | <b>Item no.: 216-141</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92<br><a href="http://www.wago.com/216-141">www.wago.com/216-141</a>  |

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|                                                                                    |                                                                                                                                                                                                       |                                                                |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|     | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated                                                                                        | <a href="http://www.wago.com/216-152">www.wago.com/216-152</a> |
|     | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray                                                                                    | <a href="http://www.wago.com/216-202">www.wago.com/216-202</a> |
|     | <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated                                                                                        | <a href="http://www.wago.com/216-151">www.wago.com/216-151</a> |
|     | <b>Item no.: 216-144</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored | <a href="http://www.wago.com/216-144">www.wago.com/216-144</a> |
|     | <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white                                                                                    | <a href="http://www.wago.com/216-201">www.wago.com/216-201</a> |
|     | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white            | <a href="http://www.wago.com/216-241">www.wago.com/216-241</a> |
|     | <b>Item no.: 216-242</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray            | <a href="http://www.wago.com/216-242">www.wago.com/216-242</a> |
|     | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow                                                                                  | <a href="http://www.wago.com/216-301">www.wago.com/216-301</a> |
|     | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green                                                                                   | <a href="http://www.wago.com/216-302">www.wago.com/216-302</a> |
| <b>Tool</b>                                                                        |                                                                                                                                                                                                       |                                                                |
| Operating tool                                                                     |                                                                                                                                                                                                       |                                                                |
|   | <b>Item no.: 210-719</b><br>Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft                                                                                                     | <a href="http://www.wago.com/210-719">www.wago.com/210-719</a> |
| <b>Testing and measuring</b>                                                       |                                                                                                                                                                                                       |                                                                |
| Testing accessories                                                                |                                                                                                                                                                                                       |                                                                |
|  | <b>Item no.: 735-500</b><br>Test pin; 1 mm Ø; with solder connection for test wire                                                                                                                    | <a href="http://www.wago.com/735-500">www.wago.com/735-500</a> |
|  | <b>Item no.: 859-500</b><br>Test pin; 1 mm Ø; with solder connection for test wire                                                                                                                    | <a href="http://www.wago.com/859-500">www.wago.com/859-500</a> |

## Downloads

### Documentation

#### Additional Information

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

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

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## CAD/CAE-Data

### CAD data

|                        |     |          |
|------------------------|-----|----------|
| 2D/3D Models 2086-1232 | URL | Download |
|------------------------|-----|----------|

### CAE data

|                        |     |          |
|------------------------|-----|----------|
| ZUKEN Portal 2086-1232 | URL | Download |
|------------------------|-----|----------|

## Environmental Product Compliance

### Compliance Search

|                                                                                                                                           |     |          |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|
| Environmental Product Compliance 2086-1232                                                                                                | URL | Download |
| THR PCB terminal block; push-button; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 12-pole; Push-in CAGE CLAMP®; 1,50 mm <sup>2</sup> ; black |     |          |

## Installation Notes

### Conductor termination



Inserting solid conductor via push-in termination.

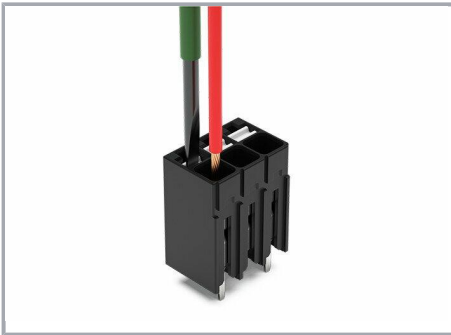
### Conductor removal

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



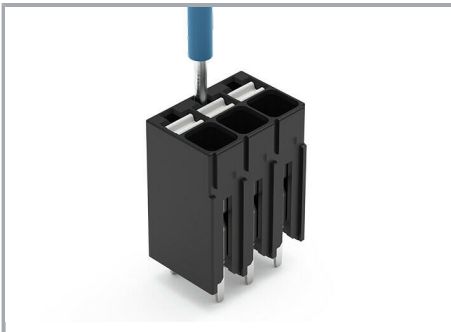
Removing fine-stranded conductors via push-buttons.

#### Conductor termination



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

#### Testing



Testing via 1 mm Ø test pin.

Touch contact with current bar.

#### Marking

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



Pole marking via direct marking  
perpendicular to conductor entry.

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

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