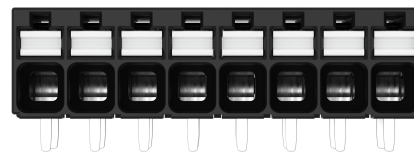
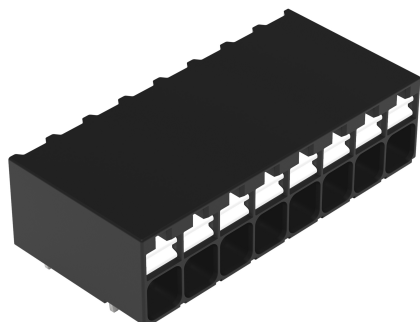


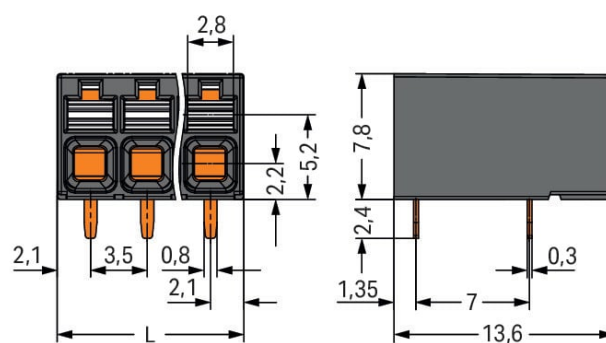
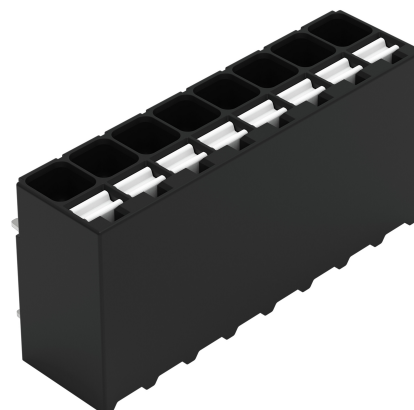
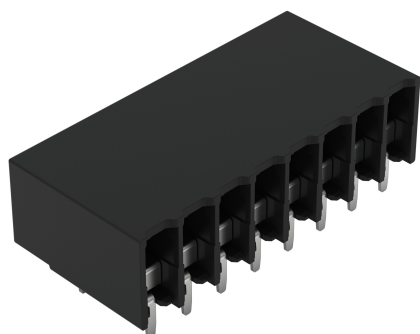
# Data Sheet | Item Number: 2086-1208

THR PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 8-pole; Push-in  
CAGE CLAMP®; 1,50 mm<sup>2</sup>; black

<https://www.wago.com/2086-1208>

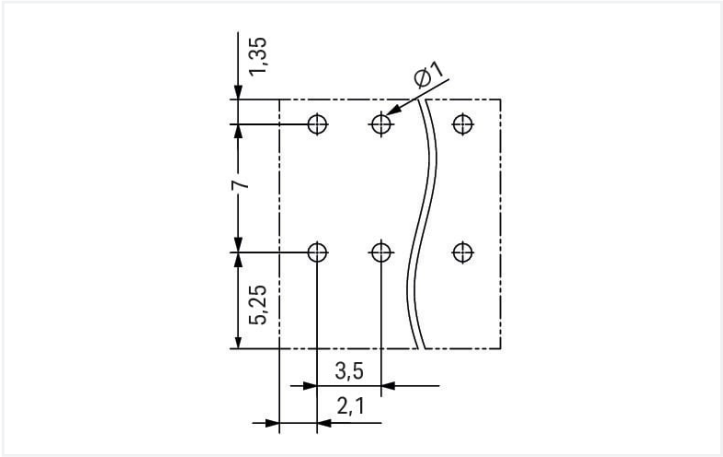


Color: ■ black

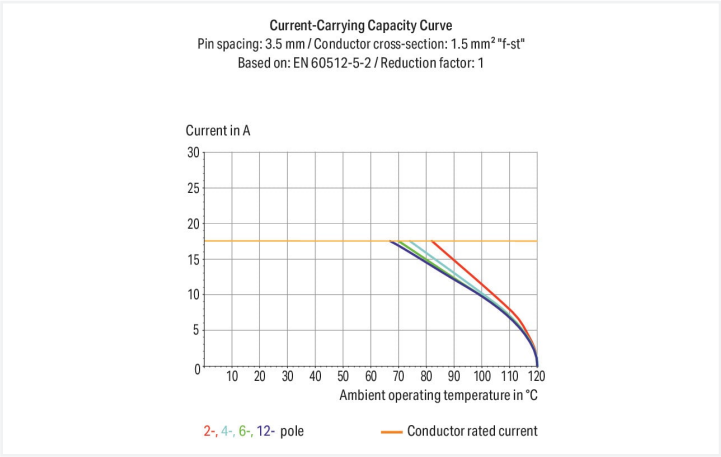


Dimensions in mm

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



Dimensions in mm





- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled fine-stranded conductors
- SMD and THR variants available
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction parallel or perpendicular to the PCB
- Optionally available with in-line or staggered pins (3.5 and 5 mm pin spacing)

| Notes |                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note  | Application notes:Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions. |



Electrical data

| Ratings per IEC/EN 60664-1 |        |        |        | Approvals per UL 1059 |       |   |       |
|----------------------------|--------|--------|--------|-----------------------|-------|---|-------|
| Overvoltage category       | III    | III    | II     | Use group             | B     | C | D     |
| Pollution degree           | 3      | 2      | 2      | Rated voltage         | 300 V | - | 300 V |
| Nominal voltage            | 160 V  | 160 V  | 320 V  | Rated current         | 14 A  | - | 10 A  |
| Rated surge voltage        | 2.5 kV | 2.5 kV | 2.5 kV |                       |       |   |       |
| Rated current              | 17.5 A | 17.5 A | 17.5 A |                       |       |   |       |

| Approvals per CSA |       |   |       |
|-------------------|-------|---|-------|
| Use group         | B     | C | D     |
| Rated voltage     | 300 V | - | 300 V |
| Rated current     | 14 A  | - | 14 A  |

Connection data

|                            |   |                                                   |                                   |
|----------------------------|---|---------------------------------------------------|-----------------------------------|
| Connection points          | 8 | Connection 1                                      |                                   |
| Total number of potentials | 8 | Connection technology                             | Push-in CAGE CLAMP®               |
| Number of connection types | 1 | Actuation type                                    | Push-button                       |
| Number of levels           | 1 | Solid conductor                                   | 0.14 ... 1.5 mm² / 28 ... 16 AWG  |
|                            |   | Fine-stranded conductor                           | 0.14 ... 1.5 mm² / 26 ... 14 AWG  |
|                            |   | Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm²                 |
|                            |   | Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm²                  |
|                            |   | Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches |
|                            |   | Conductor connection direction to PCB             | 0 °                               |
|                            |   | Pole number                                       | 8                                 |

Physical data

|                                    |                        |
|------------------------------------|------------------------|
| Pin spacing                        | 3.5 mm / 0.138 inches  |
| Width                              | 28.7 mm / 1.13 inches  |
| Height                             | 10.2 mm / 0.402 inches |
| Height from the surface            | 7.8 mm / 0.307 inches  |
| Depth                              | 13.6 mm / 0.535 inches |
| 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               |  |                                                                          |
|-----------------------------|--|--------------------------------------------------------------------------|
| Note (material data)        |  | <a href="#">Information on material specifications can be found here</a> |
| Color                       |  | black                                                                    |
| Material group              |  | I                                                                        |
| 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                                                                      |
| Fire load                   |  | 0.084 MJ                                                                 |
| Weight                      |  | 3.8 g                                                                    |
| MSL per J-STD 020D          |  | 1                                                                        |

| Environmental requirements       |  |                 |
|----------------------------------|--|-----------------|
| Limit temperature range          |  | -60 ... +105 °C |
| Processing temperature           |  | -35 ... +60 °C  |
| Continuous operating temperature |  | -60 ... +105 °C |

| Commercial data       |  |               |
|-----------------------|--|---------------|
| ETIM 8.0              |  | EC002643      |
| ETIM 7.0              |  | EC002643      |
| PU (SPU)              |  | 108 pcs       |
| Country of origin     |  | CH            |
| GTIN                  |  | 4066966142020 |
| Customs tariff number |  | 85369010000   |

| Environmental Product Compliance |  |                         |
|----------------------------------|--|-------------------------|
| RoHS Compliance Status           |  | Compliant, No Exemption |

### Approvals / Certificates

#### General approvals



| Approval                              | Standard      | Certificate Name |
|---------------------------------------|---------------|------------------|
| CB<br>DEKRA Certification B.V.        | IEC 60947-7-4 | NL-74022         |
| CSA<br>CSA Group                      | C22.2         | 80060692         |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947-7-4  | 71-119449        |
| UL<br>Underwriters Laboratories Inc.  | UL 1059       | E45172           |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2086-1208

↓

Documentation

Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB

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pdf

535.32 KB

↓

CAD/CAE-Data

CAD data

2D/3D Models 2086-1208

↓

CAE data

ZUKEN Portal 2086-1208

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1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

|                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <div><a href="#">Item No.: 216-301</a><br/>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</div>                                                                  |  <div><a href="#">Item No.: 216-151</a><br/>Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated</div>                                                                         |  <div><a href="#">Item No.: 216-131</a><br/>Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored</div>                                                             |  <div><a href="#">Item No.: 216-302</a><br/>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</div>                                                              |
|  <div><a href="#">Item No.: 216-132</a><br/>Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</div>                                                                        |  <div><a href="#">Item No.: 216-152</a><br/>Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</div>                                                                         |  <div><a href="#">Item No.: 216-241</a><br/>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white</div> |  <div><a href="#">Item No.: 216-201</a><br/>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white</div>                                                                         |
|  <div><a href="#">Item No.: 216-141</a><br/>Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</div> |  <div><a href="#">Item No.: 216-101</a><br/>Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored</div>                                                          |  <div><a href="#">Item No.: 216-121</a><br/>Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored</div>                                                              |  <div><a href="#">Item No.: 216-242</a><br/>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray</div> |
|  <div><a href="#">Item No.: 216-202</a><br/>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</div>                                                                    |  <div><a href="#">Item No.: 216-142</a><br/>Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</div> |  <div><a href="#">Item No.: 216-102</a><br/>Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored</div>                                                             |  <div><a href="#">Item No.: 216-103</a><br/>Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated</div>                                                                                |



1.1.1.1 Ferrule



**Item No.: 216-143**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-144**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; silver-colored

1.1.2 Test and measurement

1.1.2.1 Testing accessories



**Item No.: 859-500**  
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 10 mm uninsulated; Test lead for soldering up to 0,5mm<sup>2</sup>



**Item No.: 735-500**  
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm<sup>2</sup>

1.1.3 Tool

1.1.3.1 Operating tool



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

Conductor termination



Inserting solid conductor via push-in termination.

Conductor termination



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

## Conductor removal



Removing a conductor via push-button.

## Testing



Testing via 1 mm Ø test pin.  
Touch contact with current bar

## Marking



Pole marking via direct marking perpendicular to conductor entry.