

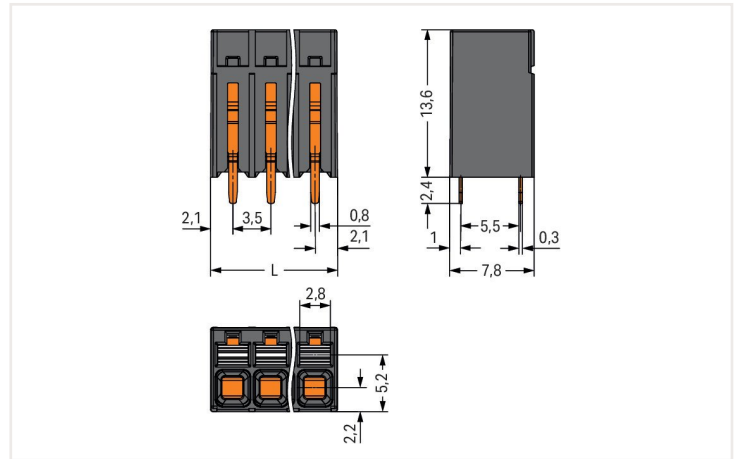
# Data sheet | Item number: 2086-1104

THR PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 4-pole; Push-in CAGE CLAMP®; 1,50 mm<sup>2</sup>; black

<https://www.wago.com/2086-1104>

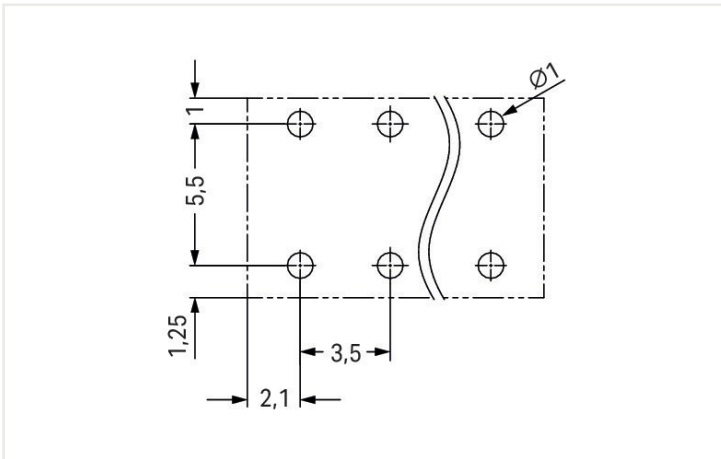


Color: ■ black

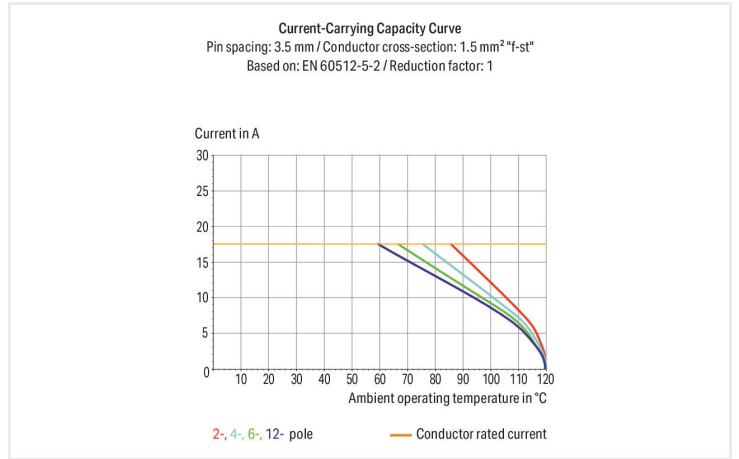


Dimensions in mm

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



Dimensions in mm



- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled conductors
- 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
- Optionally available with in-line or staggered pins (3.5 and 5 mm pin spacing)

Electrical data		Ratings per UL	
<b>Ratings per IEC/EN</b>	IEC/EN 60664-1	<b>Approvals per</b>	UL 1059
Nominal voltage (III/3)	160 V	Rated voltage UL (Use Group B)	300 V
Rated impulse voltage (III/3)	2.5 kV	Rated current UL (Use Group B)	10 A
Rated voltage (III/2)	160 V	Rated voltage UL (Use Group C)	300 V
Rated impulse voltage (III/2)	2.5 kV	Rated current UL (Use Group C)	10 A
Nominal voltage (II/2)	320 V	Rated voltage UL (Use Group D)	300 V
Rated surge voltage (II/2)	2.5 kV	Rated current UL (Use Group D)	10 A
Rated current	17.5 A		
Legend (ratings)	(III / 2) Δ Overvoltage category III / Pollution degree 2		

### 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	4
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> / 28 ... 16 AWG
Fine-stranded conductor	0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 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>
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Conductor connection direction to PCB	90 °
Pole number	4

### Physical data

Pin spacing	3.5 mm / 0.138 inch
Width	14.7 mm / 0.579 inch
Height	16 mm / 0.63 inch
Height from the surface	13.6 mm / 0.535 inch
Depth	7.8 mm / 0.307 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 (in-line)
Number of solder pins per potential	2

### Material data

Note (material data)	<a href="#">Information on material data can be found here</a>
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
Fire load	0.049 MJ
Weight	2 g

## Environmental requirements

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

## Commercial data

PU (SPU)	216 Pieces
Country of origin VKOrg Germany	CH
GTIN	4066966001525
Customs tariff number VKOrg Germany	85369010000

## Approvals and certificates

### Country specific Approvals



Approval	Standard	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



Approval	Standard	Certificate name
UL Underwriters Laboratories Inc.	UL 1059	E45172

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product  
Compliance 2086-1104



## Documentation

### Additional Information

Technical Section	03.04.2019	pdf 1949.09 KB	
		pdf 535.32 KB	

## CAD/CAE-Data

### CAD data

2D/3D Models  
2086-1104



### CAE data

ZUKEN Portal  
2086-1104



**1 Compatible products**

**1.1 Optional accessories**

**1.1.1 Ferrule**

**1.1.1.1 Ferrule**



**Item no.: 216-301**  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow



**Item no.: 216-151**  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item no.: 216-131**  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored



**Item no.: 216-302**  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item no.: 216-132**  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item no.: 216-152**  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Item no.: 216-241**  
 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



**Item no.: 216-201**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white



**Item no.: 216-141**  
 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



**Item no.: 216-101**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item no.: 216-121**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored



**Item no.: 216-242**  
 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



**Item no.: 216-202**  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item no.: 216-142**  
 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



**Item no.: 216-102**  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item no.: 216-103**  
 Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



**Item no.: 216-143**  
 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



**Item no.: 216-144**  
 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



**Item no.: 216-104**  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; 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.