

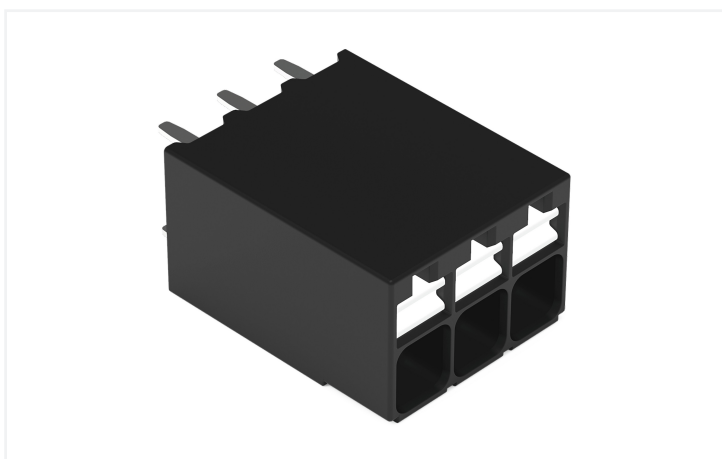
**Data Sheet | Item Number: 2086-1103**

THR PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 3-pole; Push-in  
CAGE CLAMP®; black

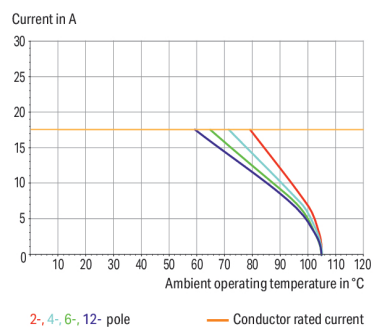
<https://www.wago.com/2086-1103>

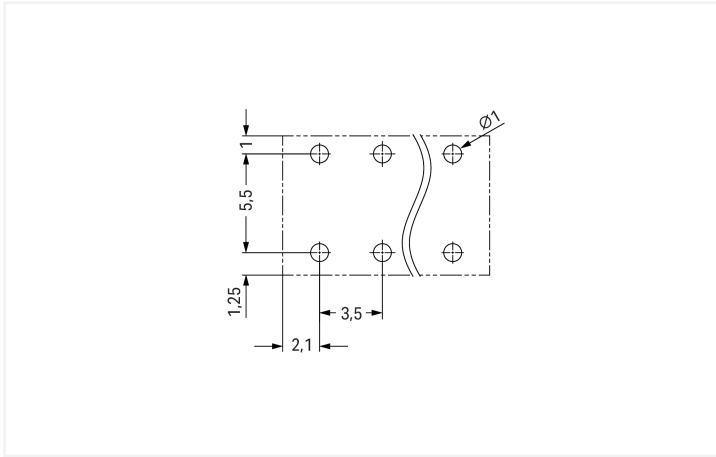


Color: ■ black

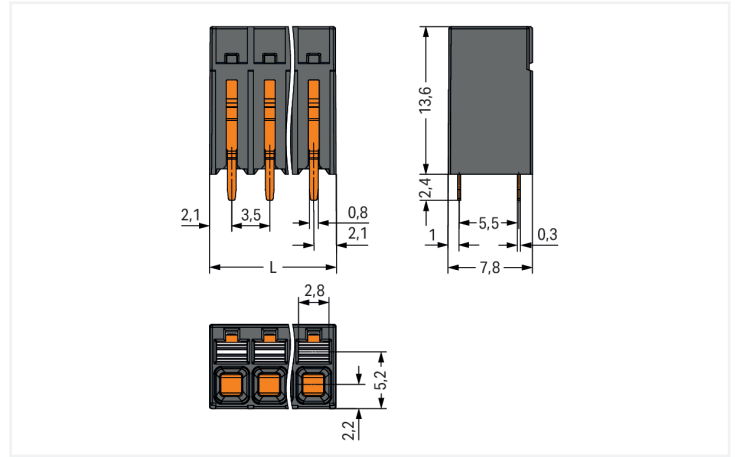


**Current-Carrying Capacity Curve**  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1





Dimensions in mm



Dimensions in mm

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

PCB terminal block, 2086 Series, with 3.5 mm pin spacing

This PCB terminal block (item number 2086-1103) is designed for simple and secure connections. It offers the flexibility needed for different mounting types. Strip lengths must be between 8 and 9 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with Push-in CAGE CLAMP®, this product outperforms the competition. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The dimensions are (11.2 x 7.8) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.14 mm<sup>2</sup> to 1.5 mm<sup>2</sup>.

The contact surface is coated with tin. This PCB terminal block is operated with a push-button. THR is used to assemble the PCB terminal block. Insert the conductor at an angle of 90°.

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		
Oversoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	160 V	160 V	320 V
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV
Rated current	17.5 A	17.5 A	17.5 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	14 A	-	10 A

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

## Connection Data

Clamping units	3
Total number of potentials	3
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 inches
Conductor connection direction to PCB	90°
Pole number	3

## Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	11.2 mm / 0.441 inches
Height	16 mm / 0.63 inches
Height from the surface	13.6 mm / 0.535 inches
Depth	7.8 mm / 0.307 inches
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

## Mechanical data

Suitable	suitable for Single Pair Ethernet (SPE)
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## 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 (main housing)	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	0.012 MJ
Weight	1.5 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

PU (SPU)	288 pcs
Packaging type	Box
Country of origin	CH
GTIN	4066966001624
Customs tariff number	85369010000

### Product Classification

UNSPSC	39121409
ETIM 9.0	EC002643
ETIM 10.0	EC002643
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



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

### Downloads

#### Environmental Product Compliance

##### Compliance Search

Environmental Product  
Compliance 2086-1103



## Documentation

### Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB	
		pdf 535.32 KB	

## CAD/CAE-Data

<b>CAD data</b>	<b>CAE data</b>
2D/3D Models 2086-1103	ZUKEN Portal 2086-1103

## 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.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated



**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 un-insulated; 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 un-insulated; 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.