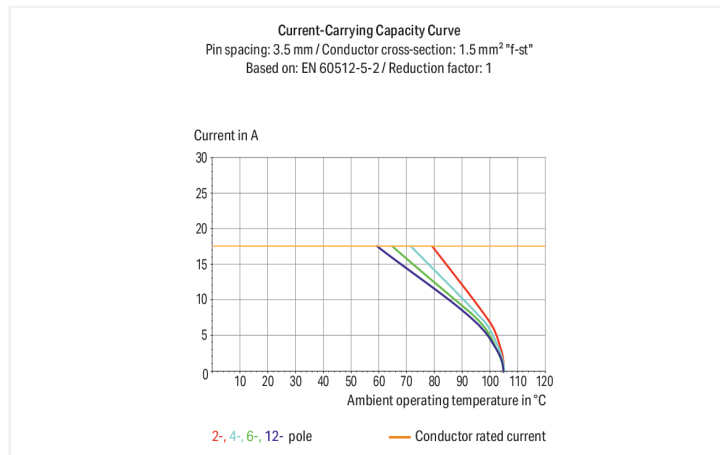


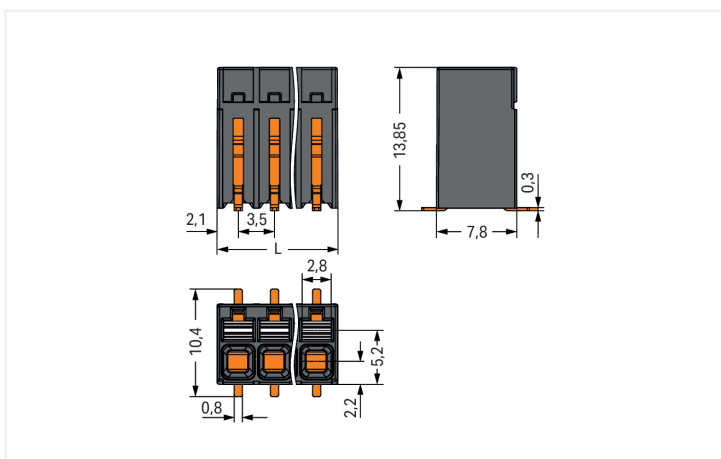
**Data Sheet | Item Number: 2086-1102/700-000/997-604**

SMD PCB terminal block; push-button; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 2-pole; Push-in  
CAGE CLAMP®; in tape-and-reel packaging; 1,50 mm<sup>2</sup>; black

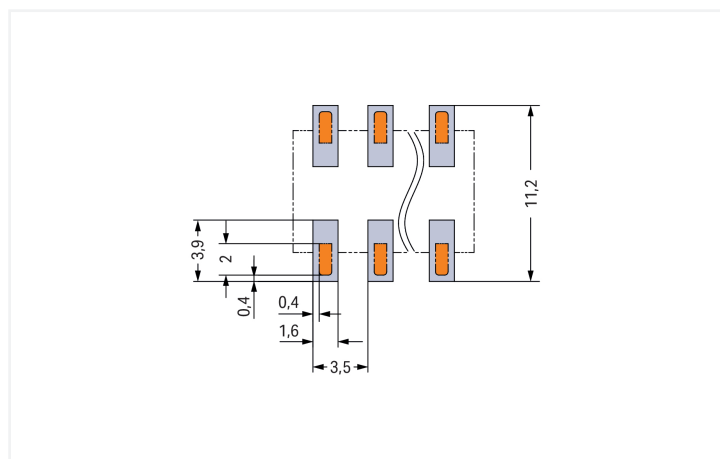
<https://www.wago.com/2086-1102/700-000/997-604>



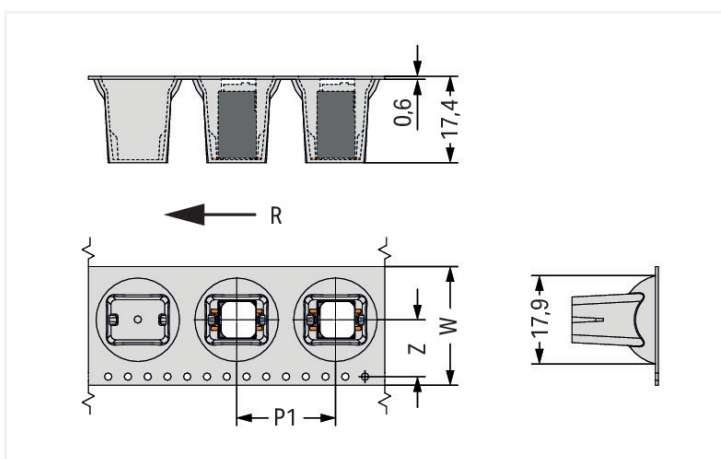
Color: ■ black



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



Dimensions in mm



Dimensions in mm  
W = Tape width R = Feed direction Pole no. 2: Z = 11.5 mm Pole no. 3 ... 5: Z = 12.4 mm Pole no. 6 ... 12: Z = 26.2 mm

PCB terminal block, 2086 Series, 90° conductor entry to board

This PCB terminal block (item number 2086-1102/700-000/997-604) is designed to connect conductors quickly and easily. It offers the flexibility needed for different mounting types. Conductors can only be connected to this PCB terminal block if their strip length is between 8 and 9 mm. This product incorporates one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules can be inserted without the need for tools—all thanks to its pluggable design. The dimensions are (7.7 x 13.85 x 7.8) mm (width x height x depth). Depending on the type of conductor, 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. The PCB terminal block is designed for SMD soldering. Insert the conductor into the board at an angle of 90°.

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

**Connection Data**

Total number of potentials	2	<b>Connection 1</b>	
Number of connection types	1	Connection technology	Push-in CAGE CLAMP®
Number of levels	1	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	2

**Physical data**

Pin spacing	3.5 mm / 0.138 inches
Width	7.7 mm / 0.303 inches
Height	13.85 mm / 0.545 inches
Depth	7.8 mm / 0.307 inches
Reel diameter of tape-and-reel packaging	380 mm
Tape width	24 mm

### PCB contact

PCB contact	SMD
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	0.011 MJ
Weight	2.6 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

### Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed

**Environmental Testing**

Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

**Commercial data**

PU (SPU)	2430 (270) pcs
Packaging type	Box
Country of origin	CH
GTIN	4066966160017
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
------------------------	-------------------------

**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

**Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Z00004399.000

**Downloads**

**Environmental Product Compliance**

**Compliance Search**



## Documentation

### Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB	
-------------------	------------	-------------------	--

## CAD/CAE-Data

### CAD data



## 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.