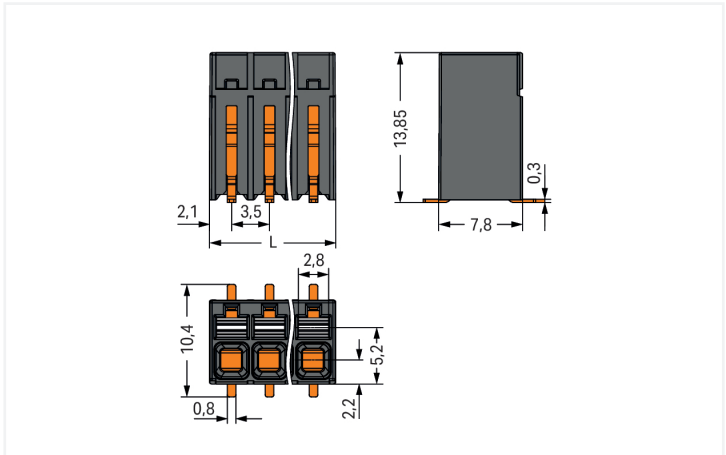
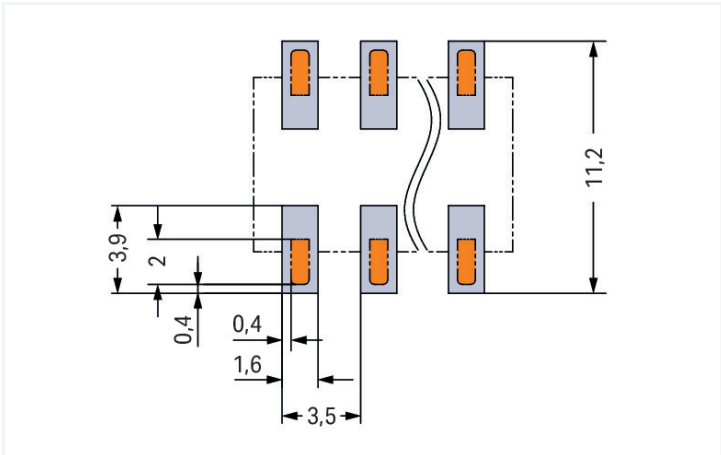




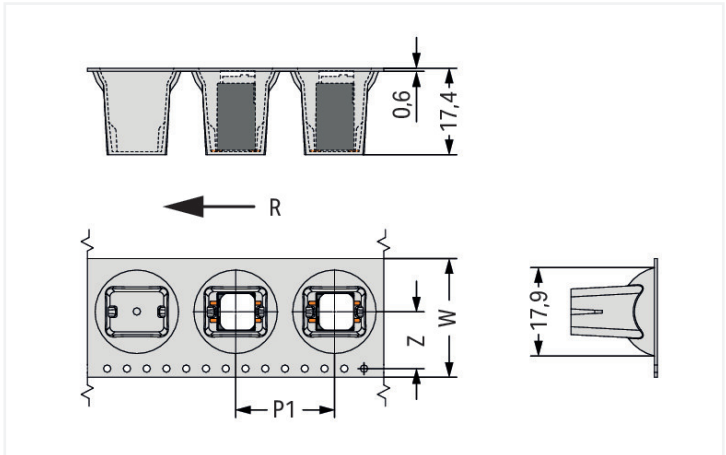
Color: ■ black



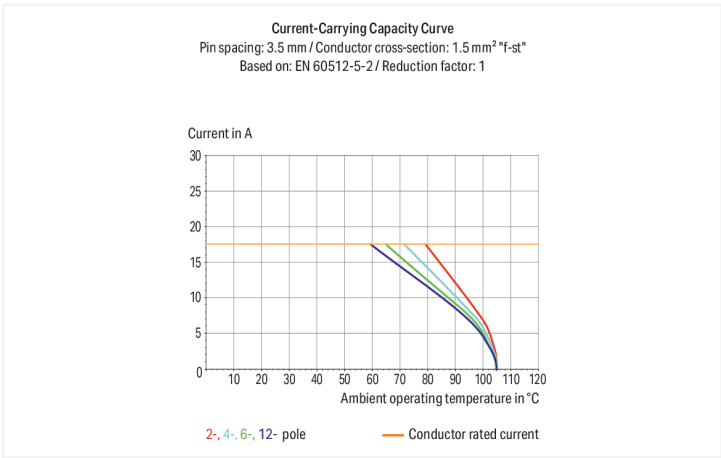
Dimensions in mm
 $L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$



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, with 3.5 mm pin spacing

Our PCB terminal block (item number 2086-1105/700-000/997-605) makes connecting wires quick and easy. It is a universal connector that can be used practically anywhere, for example, as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Rated current and voltage are key factors to consider when selecting a PCB terminal block, as they indicate possible applications and uses. This product has a rated voltage of 160 V and a rated current of 17.5 A, making it suitable for high-load applications. Ensure that the strip lengths are between 8 mm and 9 mm when connecting conductors to this PCB terminal block. This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. Dimensions: 18.2 x 13.85 x 7.8 mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 1.5 mm². The contacts are made of electrolytic copper (ECu), the clamping spring is made of chrome-nickel spring steel (CrNi), and the black housing is made of polyphthalamide (PPA GF) for insulation. Tin is used for coating the contact surfaces. A push-button is used to operate this PCB terminal block. SMD is used to solder the PCB terminal block. Insert the conductor into the board at an angle of 90°.

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	160 V	160 V	320 V
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	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

Total number of potentials	5
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 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	90 °
Pole number	5

Physical data

Pin spacing	3.5 mm / 0.138 inches
Width	18.2 mm / 0.717 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	32 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)		Information on material specifications can be found here
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 _{Cu})
Contact Plating		Tin
Fire load		0.064 MJ
Weight		4.2 g
MSL per J-STD 020D		1

Environmental requirements																						
Limit temperature range	-60 ... +105 °C	<div>Environmental Testing (Environmental Conditions)</div> <table><tr><td>Test specification</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Railway applications – Rolling stock – Electronic equipment</td><td></td></tr><tr><td>Test procedure</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Railway applications – Rolling stock equipment – Shock and vibration tests</td><td></td></tr><tr><td>Spectrum/Installation location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Function test with noise-like vibration</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min. 5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes X, Y and Z axes X, Y and Z axes</td></tr></table>	Test specification	DIN EN 50155 (VDE 0115-200):2022-06	Railway applications – Rolling stock – Electronic equipment		Test procedure	DIN EN 61373 (VDE 0115-0106):2011-04	Railway applications – Rolling stock equipment – Shock and vibration tests		Spectrum/Installation location	Service life test, Category 1, Class A/B	Function test with noise-like vibration	Test passed according to Section 8 of the standard	Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 Hz	Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)	Test duration per axis	10 min. 5 h	Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes
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Railway applications – Rolling stock equipment – Shock and vibration tests																						
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Test duration per axis	10 min. 5 h																					
Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes																					
Processing temperature	-35 ... +60 °C																					
Continuous operating temperature	-60 ... +105 °C																					





Monitoring for contact faults/interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard
Extended test scope: Monitoring for contact faults/interruptions	Passed Passed
Extended test scope: Voltage drop measurement before and after each axis	Passed Passed
Shock test	Test passed according to Section 10 of the standard
Shock form	Half sine
Shock duration	30 ms
Number of shocks per axis	3 pos. und 3 neg.
Vibration and shock stress for rolling stock equipment	Passed

Commercial data		
PU (SPU)	1890 (270) pcs	
Packaging type	Box	
Country of origin	CH	
GTIN	4066966160048	
Customs tariff number	85369010000	

Product classification		
UNSPSC	39121409	

Environmental Product Compliance		
RoHS Compliance Status	Compliant,No Exemption	

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
  					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 60947-7-4	NL-74022	Railway WAGO GmbH & Co. KG	-	Z00004399.000
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
<div>↓</div>

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	<div>↓</div>

CAD/CAE-Data

CAD data

















1 Compatible Products

1.1 Optional Accessories



1.1.1 Ferrule

1.1.1.1 Ferrule

 <div>Item No.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</div>	 <div>Item No.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</div>	 <div>Item No.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white</div>	 <div>Item No.: 216-241 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>Item No.: 216-141 Ferrule; Sleeve for 0.5 mm² / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</div>	 <div>Item No.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; un-insulated; electro-tin plated; silver-colored</div>	 <div>Item No.: 216-242 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>Item No.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</div>
 <div>Item No.: 216-142 Ferrule; Sleeve for 0.75 mm² / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</div>	 <div>Item No.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; un-insulated; electro-tin plated; silver-colored</div>	 <div>Item No.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated</div>	 <div>Item No.: 216-143 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92</div>
 <div>Item No.: 216-144 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored</div>	 <div>Item No.: 216-104 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored</div>		

1.1.2 Test and measurement

1.1.2.1 Testing accessories

 <div>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 0,5mm²</div>	 <div>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 0,5mm²</div>
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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.