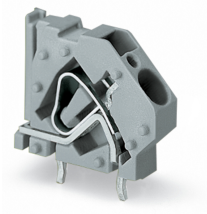


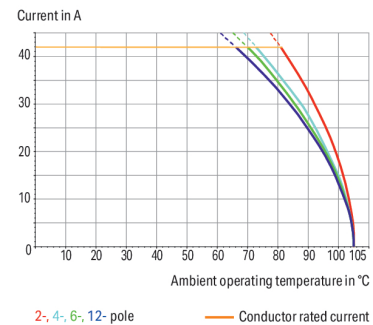
Data Sheet | Item Number: 745-831

Stackable PCB terminal block; 6 mm²; Pin spacing 7.5 mm; 1-pole; CAGE CLAMP®; commoning option; gray

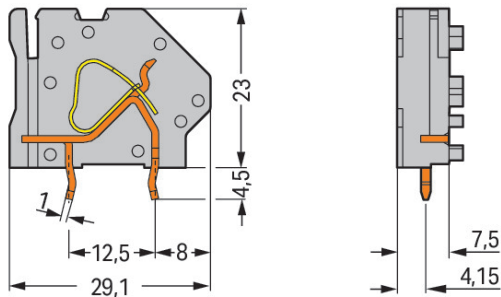
<https://www.wago.com/745-831>



Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



Color: ■ gray



Dimensions in mm

PCB terminal block, 745 Series, solder pin dimensions 1 x 1.4 mm

Our PCB terminal block (item number 745-831) is designed for seamless electrical installations. It is a universal connector that can be used almost anywhere, e.g., as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Strip lengths must be between 11 and 12 mm when connecting conductors to this PCB terminal block. This product features one conductor terminal and utilizes CAGE CLAMP®. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (9 x 27.5 x 29.1) mm (width x height x depth). Depending on the conductor type, this PCB terminal block is designed for conductor cross sections ranging from 0.2 mm² to 6 mm².

The contact surface is coated with tin. This PCB terminal block is operated with an operating tool. The PCB terminal block is designed for THT soldering. Insert the conductor into the board at an angle of 45°.



Notes	
Variants:	Versions for Ex e II and Ex i Other colors Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/ .

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	150 V	300 V
Nominal voltage	500 V	630 V	1000 V		Rated current	30 A	30 A	10 A
Rated impulse withstand voltage	6 kV	6 kV	6 kV					
Rated current	41 A	41 A	41 A					
Approvals per		CSA						
Use group	B	C	D					
Rated voltage	300 V	150 V	300 V					
Rated current	30 A	30 A	10 A					

Connection Data	
Clamping units	1
Total number of potentials	1
Number of connection types	1
Number of levels	1
Number of jumper slots	1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.2 ... 6 mm² / 24 ... 10 AWG
Fine-stranded conductor	0.2 ... 6 mm² / 24 ... 10 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 4 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 4 mm²
Strip length	11 ... 12 mm / 0.43 ... 0.47 inches
Conductor connection direction to PCB	45 °
Pole number	1

Physical data	
Pin spacing	7.5 mm / 0.295 inches
Width	9 mm / 0.354 inches
Height	27.5 mm / 1.083 inches
Height from the surface	23 mm / 0.906 inches
Depth	29.1 mm / 1.146 inches
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
!	1.8 (+0.1) mm



PCB contact		
PCB contact		THT
Solder pin arrangement		within the terminal block (in-line)
Number of solder pins per potential		2

Material data		
Note (material data)		Information on material specifications can be found here
Color		gray
Material group		I
Insulation material (main housing)		Polyamide (PA66)
Flammability class per UL94		V0
Clamping spring material		Chrome-nickel spring steel (CrNi)
Contact material		Electrolytic copper (E _{Cu})
Contact Plating		Tin
Fire load		0.073 MJ
Weight		4.7 g

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

Commercial data		
Product Group		4 (Printed Circuit Connectors)
PU (SPU)		100 (50) pcs
Packaging type		Box
Country of origin		PL
GTIN		4044918302609
Customs tariff number		85369010000

Product Classification		
UNSPSC		39121409
eCl@ss 10.0		27-44-04-01
eCl@ss 9.0		27-44-04-01
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		General approvals	
		UR	UL 1059 E45172
		Underwriters Laboratories Inc.	

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7097
CCA DEKRA Certification B.V.	EN 60947	2160584.16
CSA DEKRA Certification B.V.	C22.2 No. 158	1604421



Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 745-831



Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB



CAD/CAE-Data

CAD data
2D/3D Models 745-831



CAE data
EPLAN Data Portal 745-831
ZUKEN Portal 745-831



PCB Design
Symbol and Footprint via SamacSys 745-831
Symbol and Footprint via Ultra Librarian 745-831





1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 745-300
End plate; snap-fit type; 1.6 mm thick; gray



Item No.: 745-340
End plate; with flange; gray



Item No.: 745-345
End plate; with flange; gray

1.1.2 Installation

1.1.2.1 Intermediate plate



Item No.: 745-338
Spacer; for extending the pin spacing; 2.5 mm thick; gray

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule



Item No.: 216-262
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



Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-284
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-266
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-286
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-267
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-287
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

1.2.2 Jumper

1.2.2.1 Jumper



Item No.: 745-380
Jumper; 10-way; unplated; silver-colored



Item No.: 745-381
Jumper; 2-way; unplated; silver-colored



Item No.: 745-382
Jumper; 2-way; unplated; silver-colored



Item No.: 745-383
Jumper; 3-way; silver-colored



Item No.: 745-384
Jumper; 4-way; unplated; silver-colored



Item No.: 745-385
Jumper; 5-way; unplated; silver-colored



1.2.3 Marking

1.2.3.1 Marker

Item No.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue 	Item No.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray 	Item No.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green 	Item No.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange 
Item No.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red 	Item No.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet 	Item No.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white 	Item No.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow 
Item No.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue 	Item No.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray 	Item No.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green 	Item No.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green 
Item No.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange 	Item No.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red 	Item No.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet 	Item No.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white 
Item No.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow 	Item No.: 793-5501/000-006 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue 	Item No.: 793-5501/000-007 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray 	Item No.: 793-5501/000-023 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green 
Item No.: 793-5501/000-017 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green 	Item No.: 793-5501/000-012 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange 	Item No.: 793-5501/000-005 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red 	Item No.: 793-5501/000-024 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet 
Item No.: 793-5501 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white 	Item No.: 793-5501/000-002 WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow 	Item No.: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type; blue 	Item No.: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type; gray 
Item No.: 793-501/000-023 WMB marking card; as card; not stretchable; plain; snap-on type; green 	Item No.: 793-501/000-017 WMB marking card; as card; not stretchable; plain; snap-on type; light green 	Item No.: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type; orange 	Item No.: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type; red 
Item No.: 793-501/000-024 WMB marking card; as card; not stretchable; plain; snap-on type; violet 	Item No.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white 	Item No.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type; yellow 	Item No.: 2009-115/000-006 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue 
Item No.: 2009-115/000-007 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray 	Item No.: 2009-115/000-023 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green 	Item No.: 2009-115/000-017 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green 	Item No.: 2009-115/000-012 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange 
Item No.: 2009-115/000-024 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet 	Item No.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white 	Item No.: 2009-115/000-002 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow 	

1.2.4 Test and measurement

1.2.4.1 Testing accessories

**Item No.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

1.2.5 Tool

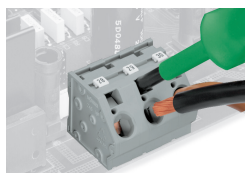
1.2.5.1 Operating tool

**Item No.: 210-721**

Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

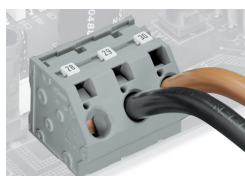
Installation Notes

Conductor termination



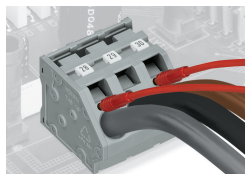
Inserting/removing a conductor via 5.5 mm screwdriver – 745 Series, 16 mm².

Marking



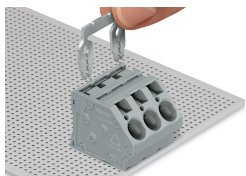
Marking via Mini-WSB and WMB markers or factory direct marking – 745 Series.

Testing

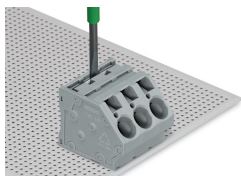


Testing with test plug – 745 Series.

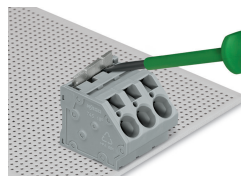
Commoning



Inserting a comb-style jumper bar.



To insert a comb-style jumper bar, push it down using a screwdriver until it hits the backstop – 745 Series.



To remove the jumper bar, lift it up using a screwdriver – 745 Series.