

Data Sheet | Item Number: 745-103

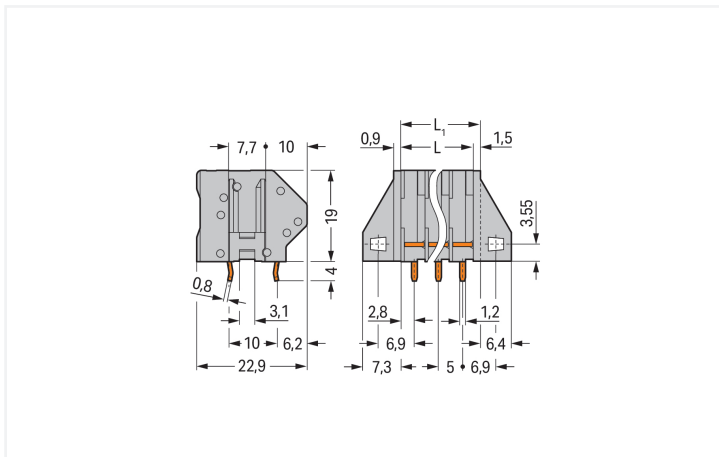
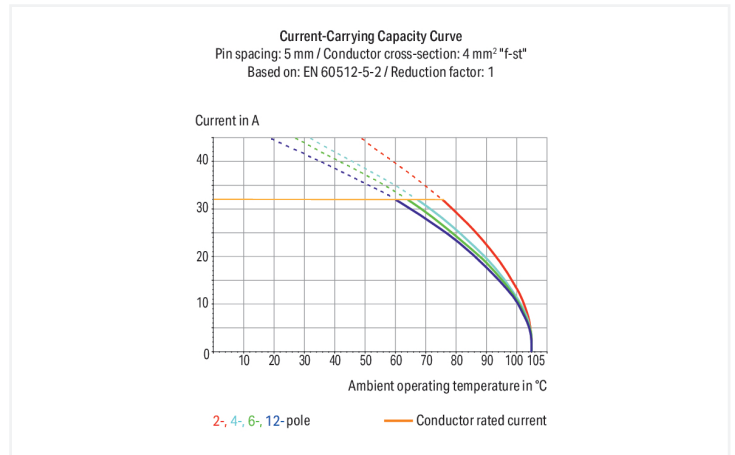
PCB terminal block; 4 mm²; Pin spacing 5 mm; 3-pole; CAGE CLAMP®; commoning option; gray

<https://www.wago.com/745-103>



Color: ■ gray

Similar to illustration



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm}$
 $L_1 = L + 1.5 \text{ mm} \triangleq \text{version without mounting flange}$

PCB terminal block, 745 Series, solder pin dimensions 0.8 x 1.2 mm

Our PCB terminal block (item number 745-103) ensures effortless electrical installations. It is perfect for custom installations with different mounting types. Ensure that the strip lengths are between 8 and 9 mm when connecting conductors to this PCB terminal block. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (16.5 x 23 x 22.9) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 4 mm².

Tin is used for coating the contact surfaces. This PCB terminal block is operated with an operating tool. The PCB terminal block is designed for THT soldering. The conductor is designed to be inserted into the board at an angle of 45°.



Notes	
Variants:	Other pole numbers Versions for Ex e II and Ex i Other colors Mixed-color PCB connector strips Versions with mounting flanges Direct marking 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		
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	320 V	320 V	630 V	
Rated impulse withstand voltage	4 kV	4 kV	4 kV	
Rated current	32 A	32 A	32 A	
Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		20 A	-	10 A
Approvals per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		20 A	-	10 A

Connection Data		
Clamping units	3	
Total number of potentials	3	
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		0.08 ... 4 mm² / 28 ... 12 AWG
Fine-stranded conductor		0.08 ... 4 mm² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule		0.25 ... 2.5 mm²
Fine-stranded conductor; with uninsulated ferrule		0.25 ... 2.5 mm²
Strip length		8 ... 9 mm / 0.31 ... 0.35 inches
Conductor connection direction to PCB		45 °
Pole number		3

Physical data	
Pin spacing	5 mm / 0.197 inches
Width	16.5 mm / 0.65 inches
Height	23 mm / 0.906 inches
Height from the surface	19 mm / 0.748 inches
Depth	22.9 mm / 0.902 inches
Solder pin length	4 mm
Solder pin dimensions	0.8 x 1.2 mm
!	1.5 (+0.1) mm



PCB contact		
PCB contact		THT
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		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		0.109 MJ
Weight		6.5 g

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

Commercial data		
Product Group		4 (Printed Circuit Connectors)
PU (SPU)		160 pcs
Packaging type		Box
Country of origin		PL
GTIN		4044918671026
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
		Underwriters Laboratories Inc.	E45172

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7095
CCA DEKRA Certification B.V.	EN 60947	71-112275
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 745-103



Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB



CAD/CAE-Data

CAD data
2D/3D Models 745-103



CAE data
EPLAN Data Portal 745-103
ZUKEN Portal 745-103



PCB Design
Symbol and Footprint via SamacSys 745-103
Symbol and Footprint via Ultra Librarian 745-103





1 Compatible Products			
1.1 Optional Accessories			
1.1.1 Ferrule			
1.1.1.1 Ferrule			
 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	 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	 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	 Item No.: 216-262 Ferrule; Sleeve for 0.75 mm² / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray
 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	 Item No.: 216-243 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.: 216-263 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	 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
 Item No.: 216-244 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.: 216-264 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-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; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	 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
 Item No.: 216-246 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.: 216-266 Ferrule; Sleeve for 2.5 mm² / AWG 14; un-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; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	 Item No.: 216-106 Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; electro-tin plated; silver-colored
1.1.2 Jumper			
1.1.2.1 Jumper			
 Item No.: 745-180 Jumper; 10-way; silver-colored	 Item No.: 745-181 Jumper; 2-way; unplated; silver-colored	 Item No.: 745-182 Jumper; 2-way; unplated; silver-colored	 Item No.: 745-183 Jumper; 3-way; unplated; silver-colored
 Item No.: 745-184 Jumper; 4-way; unplated; silver-colored	 Item No.: 745-185 Jumper; 5-way; unplated; silver-colored		
1.1.3 Marking			
1.1.3.1 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



1.1.3.1 Marker

 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	

1.1.4 Test and measurement

1.1.4.1 Testing accessories

 Item No.: 210-136 Test plug; 2 mm Ø; with 500 mm cable; red
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1.1.5 Tool

1.1.5.1 Operating tool



Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



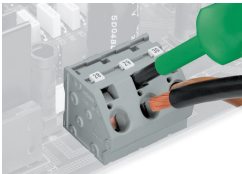
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

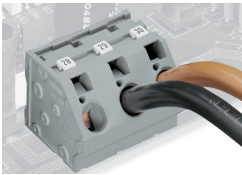
Installation Notes

Conductor termination



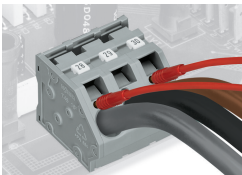
Inserting/removing a conductor via 5.5 mm screwdriver – 745 Series, 16 mm².

Marking



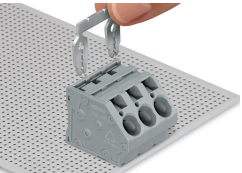
Marking via Mini-WSB and WMB markers or factory direct marking – 745 Series.

Testing

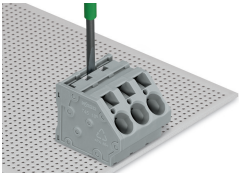


Testing with test plug – 745 Series.

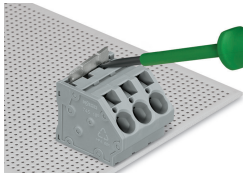
Commoning



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.