

Data sheet | Item number: 745-831

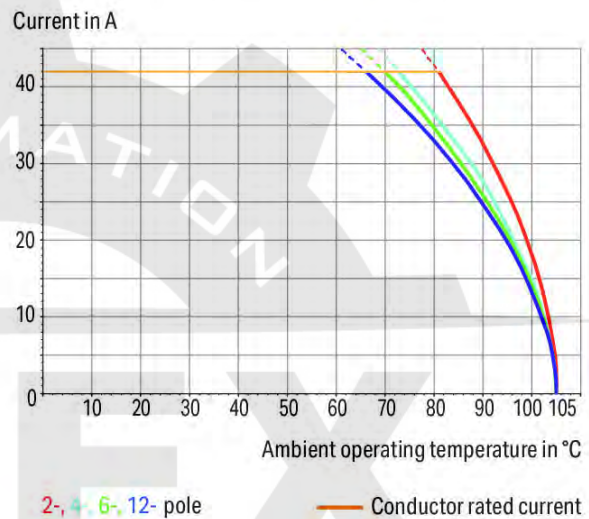
Stackable PCB terminal block; 6 mm²; Pin spacing 7.5 mm; 1-pole; CAGE CLAMP®; commoning option



745-831



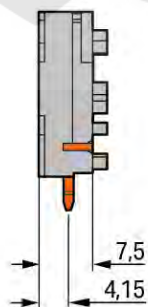
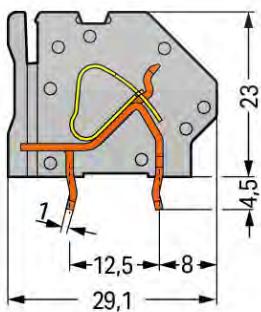
Current-Carrying Capacity Curve
Pin spacing: 7.5 mm / Conductor cross-section: 6 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



RoHS
Compliant



Color: ■



Item description

- Modular PCB terminal blocks with screwdriver-actuated CAGE CLAMP® for custom PCB terminal strip assemblies
- Versions with Ex approval
- Common and distribute potentials via comb-style jumper bars
- Double solder pins for high mechanical stability
- Integrated testing tap
- Marker slot for Mini-WSB markers

Data

Electrical data

Ratings per IEC/EN 60664-1

Rated voltage (III / 3)	500 V
Rated impulse voltage (III / 3)	6 kV
Rated voltage (III / 2)	630 V
Rated impulse voltage (III / 2)	6 kV
Rated voltage (II / 2)	1000 V
Rated impulse voltage (II / 2)	6 kV
Rated current	41 A

Approvals per UL 1059

Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	30 A
Rated voltage UL (Use Group C)	150 V
Rated current UL (Use Group C)	30 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A

Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	30 A
Rated voltage CSA (Use Group C)	150 V
Rated current CSA (Use Group C)	30 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool

Solid conductor	0.2 ... 6 mm ² / 24 ... 10 AWG
Fine-stranded conductor	0.2 ... 6 mm ² / 24 ... 10 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 ... 4 mm ²
Fine-stranded conductor with ferrule without plastic collar	0.25 ... 4 mm ²
Strip length	11 ... 12 mm / 0.43 ... 0.47 inch
Conductor entry angle to the PCB	45°
No. of poles	1
Total number of connection points	1
Total number of potentials	1
Number of connection types	1
Number of levels	1
Number of jumper slots	1

Geometrical Data

Pin spacing	7.5 mm / 0.295 inch
Width	9 mm / 0.354 inch
Height	27.5 mm / 1.083 inch
Height from the surface	23 mm / 0.906 inch
Depth	29.1 mm / 1.146 inch
Solder pin length	4.5 mm
Solder pin dimensions	1 x 1.4 mm
Drilled hole diameter (tolerance)	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

Color	gray
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E _{Cu})
Contact plating	tin-plated
Fire load	0.073 MJ
Weight	4.761 g

Environmental Requirements

Limit temperature range	-60 ... +105 °C
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Commercial data

Product Group	4 (Printed Circuit)
Country of origin	PL
GTIN	4044918302609
Customs Tariff No.	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	2160584.16
	CCA DEKRA Certification B.V.	EN 60947	NTR NL-7097
	CSA DEKRA Certification B.V.	C22.2 No. 158	1604421

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172 sec6

Compatible products

End plate

	Item no.: 745-300 End plate; snap-fit type; 1.6 mm thick	745-300
	Item no.: 745-340 End plate; with flange	745-340
	Item no.: 745-345 End plate; with flange	745-345
check		
	Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable	210-136
	Item no.: 210-137 Test plug; 2.3 mm Ø; with 500 mm cable	210-137
Jumper		
	Item no.: 745-380 Comb-style jumper bar; 10-way	745-380
	Item no.: 745-381 Comb-style jumper bar; 2-way (1-3)	745-381
	Item no.: 745-382 Comb-style jumper bar; 2-way	745-382
	Item no.: 745-383 Comb-style jumper bar; 3-way	745-383
	Item no.: 745-384 Comb-style jumper bar; 4-way	745-384
	Item no.: 745-385 Comb-style jumper bar; 5-way	745-385
tools		
	Item no.: 210-721 Operating tool with partially insulated shaft; Type 3, blade (5.5 x 0.8) mm	210-721
ferrule		
	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated	216-101
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated	216-102
	Item no.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated	216-103
	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated	216-104
	Item no.: 216-106 Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated	216-106
	Item no.: 216-107 Ferrule; Sleeve for 4 mm² / AWG 12; uninsulated; electro-tin plated	216-107

	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	216-121
	Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	216-122
	Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	216-123
	Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	216-124
	Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	216-131
	Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	216-132
	Item no.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	216-141
	Item no.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	216-142
	Item no.: 216-143 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	216-143
	Item no.: 216-144 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	216-144
	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	216-151
	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	216-152
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated	216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated	216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated	216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated	216-204
	Item no.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated	216-205
	Item no.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated	216-206
	Item no.: 216-207 Ferrule; Sleeve for 4 mm ² / AWG 12; insulated; electro-tin plated	216-207
	Item no.: 216-221	

	Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated	216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated	216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated	216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated	216-224
	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	216-241
	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	216-242
	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	216-243
	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	216-244
	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	216-246
	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	216-262
	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	216-263
	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	216-264
	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	216-266
	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	216-267
	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	216-284
	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	216-286
	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	216-287
	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated	216-301

**Item no.: 216-302**Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated

216-302

Item no.: 216-321Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated

216-321

**Item no.: 216-322**Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated

216-322

General accessories**Item no.: 745-338**

Spacer; for extending the pin spacing; 2.5 mm thick

745-338

Marking accessories**Item no.: 2009-115**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

**Item no.: 2009-115/000-002**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-002

**Item no.: 2009-115/000-006**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-006

**Item no.: 2009-115/000-007**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-007

**Item no.: 2009-115/000-012**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-012

**Item no.: 2009-115/000-017**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-017

**Item no.: 2009-115/000-023**

WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-023

**Item no.: 2009-115/000-024**

WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-115

/000-024

**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-002

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-005

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-006

	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	2009-145
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	2009-145
	Item no.: 2009-145/000-023 Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	2009-145
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	2009-145
	Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card		248-501
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-002	248-501
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-005	248-501
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-006	248-501
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-007	248-501
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-012	248-501
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-017	248-501
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-023	248-501
	Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type	/000-024	248-501
	Item no.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type		793-501
	Item no.: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type	/000-002	793-501



Item no.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type

/000-005

793-501



Item no.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type

/000-006

793-501



Item no.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type

/000-007

793-501



Item no.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type

/000-012

793-501



Item no.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type

/000-017

793-501



Item no.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type

/000-023

793-501



Item no.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type

/000-024

793-501



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

793-5501



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

/000-002

793-5501



Item no.: 793-5501/000-005
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-005

793-5501



Item no.: 793-5501/000-006
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-006

793-5501



Item no.: 793-5501/000-007
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-007

793-5501



Item no.: 793-5501/000-012
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-012

793-5501



Item no.: 793-5501/000-017
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-017

793-5501



Item no.: 793-5501/000-023
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

/000-023

793-5501



Item no.: 793-5501/000-024

WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type

793-5501

/000-024

Downloads**CAD/CAE - Smart Data****CAD data**

3D Download 745-831		URL	Download
PCB libraries			
EAGLE Library for WAGO PCB Terminal Blocks	2.1	zip	Download
Compatible with EAGLE PCB Design Software Version 6.x or higher	Oct 6, 2014	23.9 MB	
TARGET Library for WAGO PCB Terminal Blocks	1.1.0	zip	Download
Compatible with TARGET PCB Design Software Version 17.x	Oct 6, 2014	27.1 MB	
DesignSpark Library for WAGO PCB Terminal Blocks	2.1	zip	Download
Compatible with DesignSpark PCB Version 4.x or higher	Oct 6, 2014	22.5 MB	

Subject to changes.