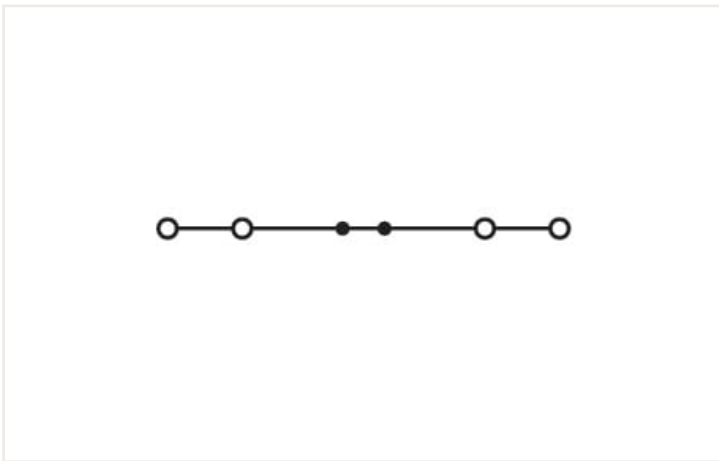
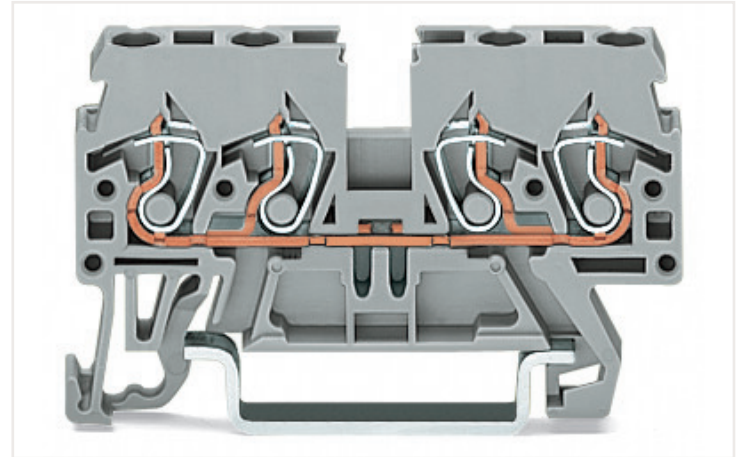
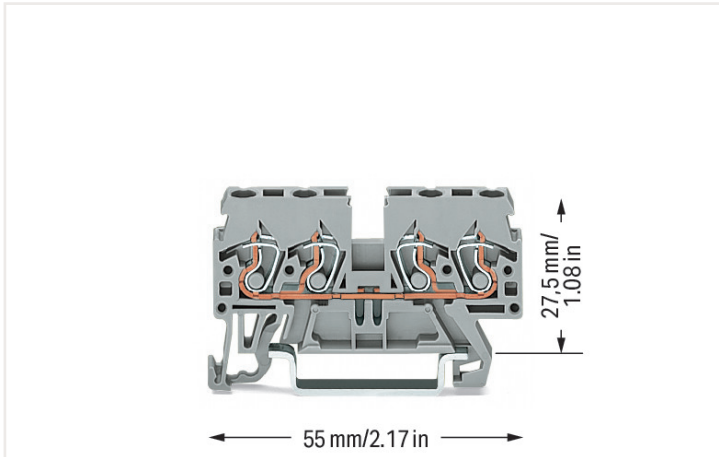


Data sheet | Item number: 870-831

4-conductor through terminal block; 2.5 mm²; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; gray

<https://www.wago.com/870-831>



Notes

Safety information 1

Max. insulation diameter: 4.4 mm

Electrical data

Ratings per IEC/EN	
Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated current	24 A
Legend (ratings)	(III / 3) Δ Overvoltage category III / Pollution degree 3

Power loss	
Power loss, per pole (potential)	0.7661 W
Rated current I _N for specified power loss	24 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

Connection data

Connection points	4
Total number of potentials	1
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 4 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.08 ... 1.5 mm ² / 28 ... 14 AWG
Strip length	6 ... 7 mm / 0.24 ... 0.28 inches
Wiring direction	Front-entry wiring

Physical data

Width	5 mm / 0.197 inches
Height	55 mm / 2.165 inches
Depth from upper-edge of DIN-rail	27.5 mm / 1.083 inches

Mechanical data

Design	horizontal type
Mounting type	DIN-35 rail
Marking level	Side marking

Material data

Note (material data)	Information on material data can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.118 MJ
Weight	7.3 g

Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Commercial data

Product Group	16 (Rail Mounted Terminal Block with CCC)
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4045454094621
Customs tariff number VKOrg Germany	85369010000

Approvals and certificates

General approvals



Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7468
CCA DEKRA Certification B.V.	EN 60947	2189801.01
cURus UL International Germany GmbH	UL 1059	E45172

Approvals for marine applications



Approval	Standard	Certificate name
ABS American Bureau of Shipping	-	20-HG1941090-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
LR Lloyds Register	EN 60947	91/20112 (E9)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 870-831



Documentation

Additional Information

Technical Section	pdf 2142.18 KB	
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Bid Text

870-831	19.02.2019	xml 3.26 KB	
870-831	31.05.2017	doc 24.50 KB	

CAD/CAE-Data

CAD data

2D/3D Models 870-831	
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CAE data

EPLAN Data Portal 870-831	
WSCAD Universe 870-831	
ZUKEN Portal 870-831	

1 Compatible products

1.1 Required accessories

1.1.1 End plate

1.1.1.1 End plate



Item no.: 870-943
End and intermediate plate; 1 mm thick; gray

Item no.: 870-944
End and intermediate plate; 1 mm thick; orange

1.2 Optional accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories



Item no.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item no.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



Item no.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item no.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



Item no.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item no.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item no.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



Item no.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



Item no.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored



Item no.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item no.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.2.2 End plate

1.2.2.1 End plate



Item no.: 870-948
Separator plate; 1 mm thick; gray

Item no.: 870-949
Separator plate; 1 mm thick; orange

1.2.3 Ferrule

1.2.3.1 Ferrule



[Item no.: 216-321](#)

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

[Item no.: 216-131](#)

Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

[Item no.: 216-322](#)

Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

[Item no.: 216-132](#)

Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



[Item no.: 216-221](#)

Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

[Item no.: 216-121](#)

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

[Item no.: 216-222](#)

Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

[Item no.: 216-122](#)

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



[Item no.: 216-223](#)

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red mm² "f-st"); 5 pieces/strip; white

[Item no.: 216-123](#)

Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored strip; light gray

[Item no.: 216-224](#)

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black strip; black

[Item no.: 216-124](#)

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

1.2.6 Jumper

1.2.4.1 Mounting accessories



1.2.6.1 Jumper



[Item no.: 870-404](#)

[Item no.: 870-405/011-000](#)

[Item no.: 870-407/011-000](#)

[Item no.: 870-409/011-000](#)



[Item no.: 870-406/020-000](#)

Delta jumper; insulated; light gray

[Item no.: 870-410](#)

Jumper; 10-way; insulated; light gray

[Item no.: 870-402](#)

Jumper; 2-way; insulated; light gray

[Item no.: 870-403](#)

Jumper; 3-way; insulated; light gray



[Item no.: 870-405](#)

Jumper; 5-way; insulated; light gray

[Item no.: 870-406](#)

Jumper; 6-way; insulated; light gray

[Item no.: 870-407](#)

Jumper; 7-way; insulated; light gray

[Item no.: 870-408](#)

Jumper; 8-way; insulated; light gray



[Item no.: 870-409](#)

Jumper; 9-way; insulated; light gray

[Item no.: 870-440](#)

Jumper; from 1 to 10; insulated; light gray

[Item no.: 870-433](#)

Jumper; from 1 to 3; insulated; light gray

[Item no.: 870-434](#)

Jumper; from 1 to 4; insulated; light gray



[Item no.: 870-435](#)

Jumper; from 1 to 5; insulated; light gray

[Item no.: 870-436](#)

Jumper; from 1 to 6; insulated; light gray

[Item no.: 870-437](#)

Jumper; from 1 to 7; insulated; light gray

[Item no.: 870-438](#)

Jumper; from 1 to 8; insulated; light gray



[Item no.: 870-439](#)

Jumper; from 1 to 9; insulated; light gray

1.2.7 Marking

1.2.7.1 Group marker carrier



Item no.: [870-182](#)

Adaptor; gray

Item no.: [870-183](#)

Adaptor; gray

Item no.: [870-184](#)

Adaptor; gray

1.2.7.2 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

1.2.7.2 Marker



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

1.2.7.3 Marking strip



Item no.: 709-196

Marking strips; for laser printer; translucent



Item no.: 709-177

Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; translucent



Item no.: 709-178

Marking strips; on reel; 7.5 mm wide; not stretchable; plain; snap-on type; white

1.2.8 Protective warning marker

1.2.8.1 Cover



Item no.: 280-405

Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.9 Test and measurement

1.2.9.1 Testing accessories



Item no.: 870-427

Spacer module; modular; bridging commoned terminal blocks; gray



Item no.: 870-426

Tap-off module; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray



Item no.: 870-425

Tap-off module; with anti-rotation protection; modular; suitable for 870 Series terminal blocks with jumper slots in the current bar; gray

1.2.10 Tool

1.2.10.1 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

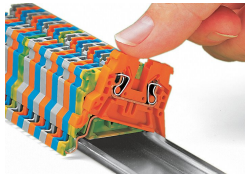


Item no.: 210-657

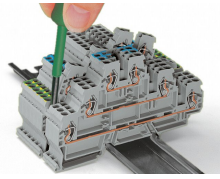
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation notes

Installation

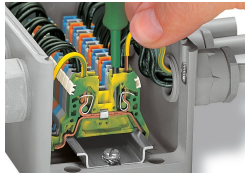


Snapping a rail-mount terminal block onto DIN-35 rail.

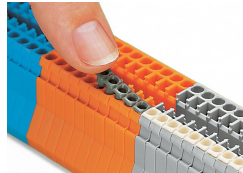


Removing a terminal block from the assembly.

Conductor termination



CAGE CLAMP® connection
Inserting a conductor via operating tool (0.08 ... 4 mm² "f-st").
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.

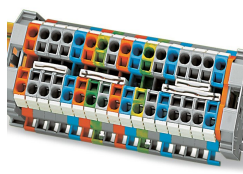


Inserting insulation stops into conductor entry holes of terminal strip.

Commoning



Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side until installed.
Push-in type jumper bars 1 – 3 – 5 – 7 or 1 – 4 – 7 upon request

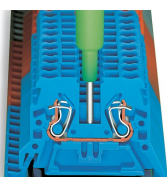


Commoning with push-in type jumper bars:
Two parallel jumper slots are accommodated in one terminal block.

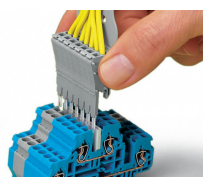


Commoning terminal blocks of different sizes via step-down jumpers.

Testing

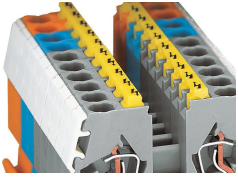


Testing with phase testing device, also possible with single-pole voltage tester.



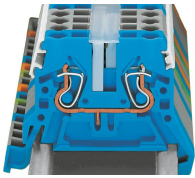
Testing is also possible using a pre-wired tap-off module assembly in the very same way as test plugs.

Cover

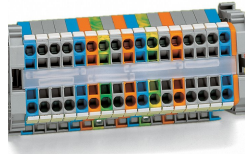


Protective warning markers (280-405), with a black high-voltage symbol

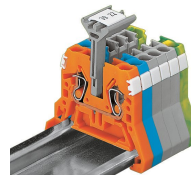
Marking



WMB markers in Mini-WSB marker slots
Translucent marking strip
Mini-WSB markers



Translucent marking strip (709-196) – jumpers below may be visible.



In addition to the plastic marker strips, group marker carriers are now available for the WMB and WSB marking systems. They can be mounted in parallel to a push-in type jumper bar via the open jumper contact slot. It is also very useful if the marker slots on the side of the terminal block are hidden. The carriers are available in the following widths: 5 mm (0.197 inch), 10 mm (0.394 inch) and 15 mm (0.591 inch).

Notice:

Group marker carriers are not suitable for ground conductor terminal blocks and double potential terminal blocks as they have no jumper contact slots.