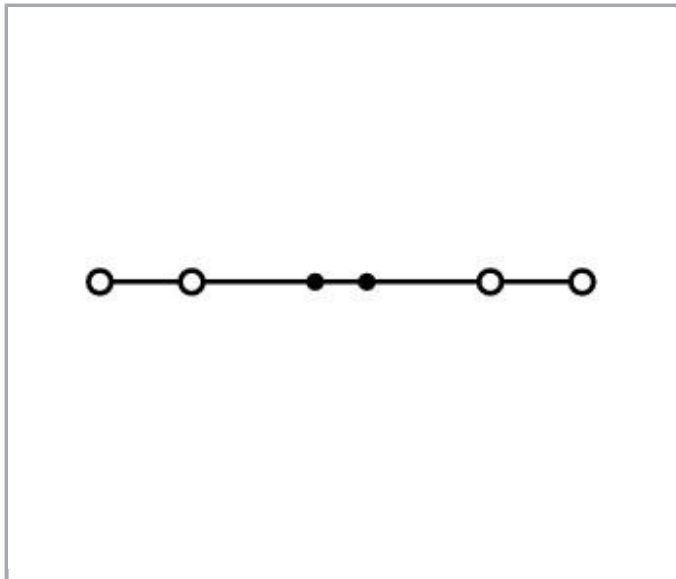
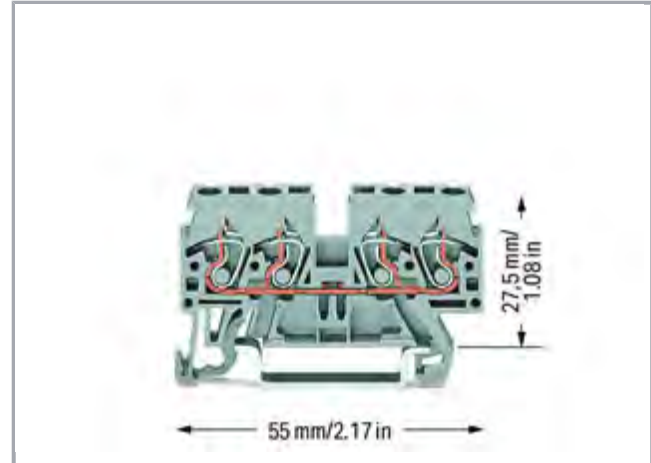
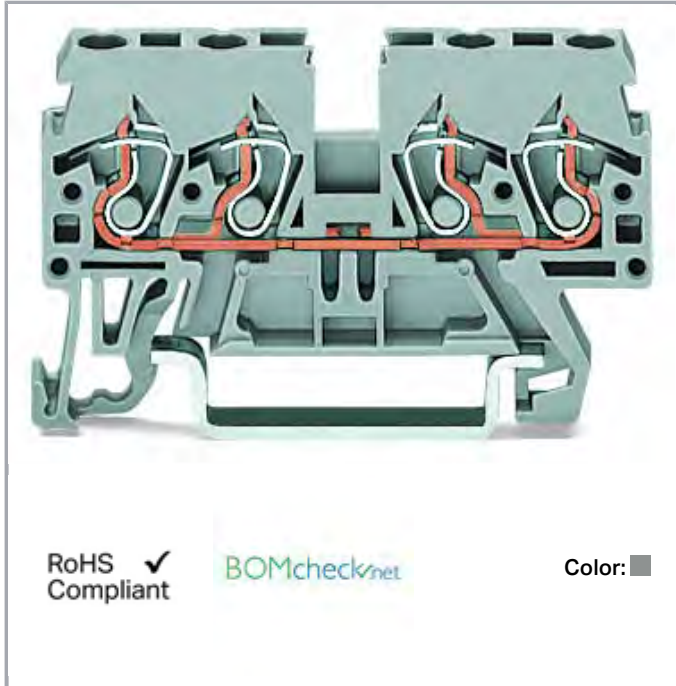


Data sheet | Item number: 870-831

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



Item description

Subject to changes. Please also observe the further product documentation!

**Safety information 1:**

Max. insulation diameter: 4.4 mm

Data**Electrical data****Ratings per IEC/EN 60664-1**

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

Connection data

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
Strip length	6 ... 7 mm / 0.24 ... 0.28 inch
Total number of connection points	4
Total number of potentials	1
Number of levels	1
Wiring type	Front-entry wiring

Geometrical Data

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

Mechanical data

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

Subject to changes. Please also observe the further product documentation!

Material Data

Color	gray
Insulation material	Polyamide 66 (PA 66)
Fire load	0.118 MJ
Weight	7.3 g

Commercial data

Product Group	16 (Rail Mounted Terminal Block with CCC)
Packaging type	BOX
Country of origin	DE
GTIN	4045454094621
Customs tariff number	85369010000

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	NTR NL 7468
	CCA DEKRA Certification B.V.	EN 60947	2189801.01

Ship Approvals

Logo	Approval	Additional Approval Text	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)

Subject to changes. Please also observe the further product documentation!



UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	cURus UL International Germany GmbH	UL 1059	20160928-E45172

Compatible products

End plate



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



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

ferrule



Item no.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated



Item no.: 216-122
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated



Item no.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated



Item no.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated



Item no.: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

Subject to changes. Please also observe the further product documentation!

**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.: 216-222**

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

**Item no.: 216-223**

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

**Item no.: 216-224**

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

Item no.: 216-321

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

**Item no.: 216-322**

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

Protective Warning Marker**Item no.: 280-405**

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

Carrier rail**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

**Item no.: 210-113**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

**Item no.: 210-114**

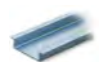
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

**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

**Item no.: 210-118**

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

**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.: 210-197**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

**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.: 210-504**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

Subject to changes. Please also observe the further product documentation!

**Item no.: 210-505**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715

**Item no.: 210-506**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

**Item no.: 210-508**

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

Insulation stop**Item no.: 280-470**

Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 5 pieces/strip; white

**Item no.: 280-471**

Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

**Item no.: 280-472**

Insulation stop; 0.75 - 1 mm²; 5 pieces/strip

check**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

**Item no.: 870-426**

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

**Item no.: 870-427**

Spacer module; modular; bridging commoned terminal blocks; gray

tools**Item no.: 210-657**

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

**Item no.: 210-658**

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

**Item no.: 210-720**

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

Jumper**Item no.: 709-110**

Wire commoning chain; 2.5 mm²; insulated; black

**Item no.: 709-111**

Wire commoning chain; 2.5 mm²; insulated; black

**Item no.: 709-112**

Wire commoning chain; 2.5 mm²; insulated; black

**Item no.: 870-402**

Jumper; 2-way; insulated; light gray

Subject to changes. Please also observe the further product documentation!

	Item no.: 870-403 Jumper; 3-way; insulated; light gray
	Item no.: 870-404 Push-in type jumper bar; insulated; 4-way; Nominal current 18 A; light gray
	Item no.: 870-405 Jumper; 5-way; insulated; light gray
	Item no.: 870-405/011-000 Ready-made push-in type jumper bar; insulated; 3-way (1-3-5); Nominal current 18 A; light gray
	Item no.: 870-406 Jumper; 6-way; insulated; light gray
	Item no.: 870-407 Jumper; 7-way; insulated; light gray
	Item no.: 870-407/011-000 Ready-made push-in type jumper bar; insulated; 1-3-5-7; Nominal current 18 A; light gray
	Item no.: 870-408 Jumper; 8-way; insulated; light gray
	Item no.: 870-409 Jumper; 9-way; insulated; light gray
	Item no.: 870-409/011-000 Ready-made push-in type jumper bar; insulated; 1-3-5-7-9; Nominal current 18 A; light gray
	Item no.: 870-410 Push-in type jumper bar; insulated; 10-way; Nominal current 18 A; 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

Subject to changes. Please also observe the further product documentation!

**Item no.: 870-439**

Jumper; from 1 to 9; insulated; light gray

**Item no.: 870-440**

Push-in type jumper bar; insulated; from 1 to 10; Nominal current 18 A; light gray

Marking accessories**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

**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.: 2009-115/000-012**

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

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

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

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

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

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

WMB-Inline; for Smart Printer; 1500 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.: 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.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Subject to changes. Please also observe the further product documentation!



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.: 2009-145/000-012

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



Item no.: 2009-145/000-023

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



Item no.: 2009-145/000-024

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



Item no.: 248-501

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card



Item no.: 248-501/000-002

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow



Item no.: 248-501/000-005

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



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.: 248-501/000-012

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



Item no.: 248-501/000-017

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



Item no.: 248-501/000-023

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



Item no.: 248-501/000-024

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



Item no.: 709-177

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

Subject to changes. Please also observe the further product documentation!

**Item no.: 709-178**

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

**Item no.: 709-196**

Marking strips; for laser printer; translucent

**Item no.: 709-198**

Marking strips; white

**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.: 793-501/000-005**

WMB marking card; as card; not stretchable; plain; snap-on type; red

**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.: 793-501/000-012**

WMB marking card; as card; not stretchable; plain; snap-on type; orange

**Item no.: 793-501/000-017**

WMB marking card; as card; not stretchable; plain; snap-on type; light green

**Item no.: 793-501/000-023**

WMB marking card; as card; not stretchable; plain; snap-on type; green

**Item no.: 793-501/000-024**

WMB marking card; as card; not stretchable; 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.: 793-5501/000-005

WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on

Subject to changes. Please also observe the further product documentation!



type; red

**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.: 793-5501/000-012**

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.: 793-5501/000-017**

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.: 793-5501/000-023**

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.: 793-5501/000-024**

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.: 870-182**

Adaptor; gray

**Item no.: 870-183**

Adaptor; gray

**Item no.: 870-184**

Adaptor; gray

assembling

**Item no.: 209-106**

Mounting carrier; for isolated mounting on DIN 35 rails; gray

**Item no.: 249-116**

Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

**Item no.: 249-117**

Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

Downloads

CAD/CAE-Data

CAD data

Subject to changes. Please also observe the further product documentation!

2D/3D Models 870-831

CAE data

EPLAN Data Portal 870-831

WSCAD Universe 870-831

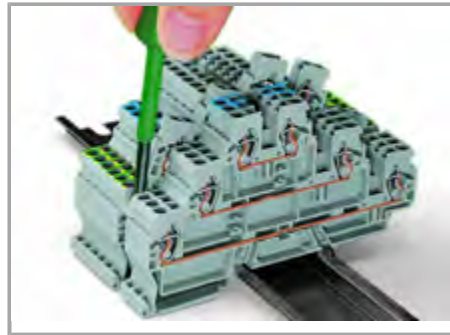
ZUKEN Portal 870-831

Installation Notes

Installation



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



Removing a terminal block from the assembly.

Conductor termination

Subject to changes. Please also observe the further product documentation!



CAGE CLAMP® connection



Inserting an insulation stop into conductor entry holes of terminal strip.

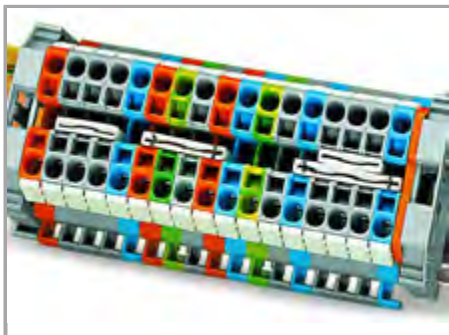
Inserting a conductor (0.08 ... 4 mm² "f-st").

With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross section.

Commoning



Push jumper bars down firmly until fully inserted. When using multipole bars, push alternately on the right and then left side, until installed.



Commoning with push-in type jumper bars:

Two parallel jumper slots are accommodated in one terminal block.



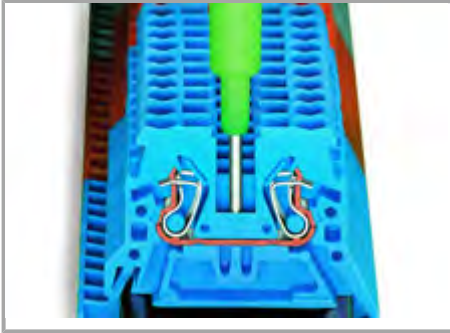
Commoning terminal blocks of different sizes via step-down jumpers.

Push-in type jumper bars 1 – 3 – 5 – 7 or 1 – 4 – 7

upon request

Subject to changes. Please also observe the further product documentation!

Testing

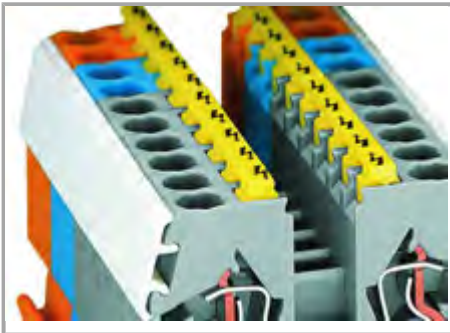


Testing with phase testing device, also possible with single-pole voltage tester.



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

Cover



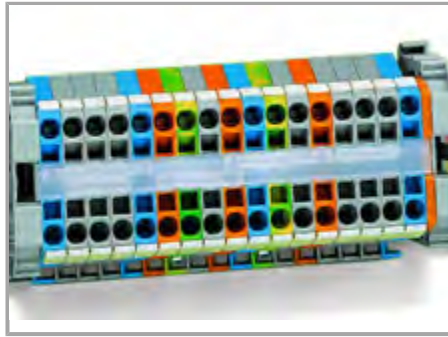
Protective warning markers (280-405), with a black high-voltage symbol

Marking

Subject to changes. Please also observe the further product documentation!



WMB markers in Mini-WSB marker slots



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



Marking strip, translucent

Mini-WSB markers

In addition to the plastic marker strips, group marker carriers are now available for the WMB and WSB marking systems. They can be mounted parallel to a push-in type jumper bar via open jumper contact slot. It assists with viewing marker slots on the side of the terminal block. Group marker carriers are available in 5 mm/0.197 inch, 10 mm/0.394 inch and 15 mm/0.591 inch widths.

Notice:

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

Subject to changes. Please also observe the further product documentation!