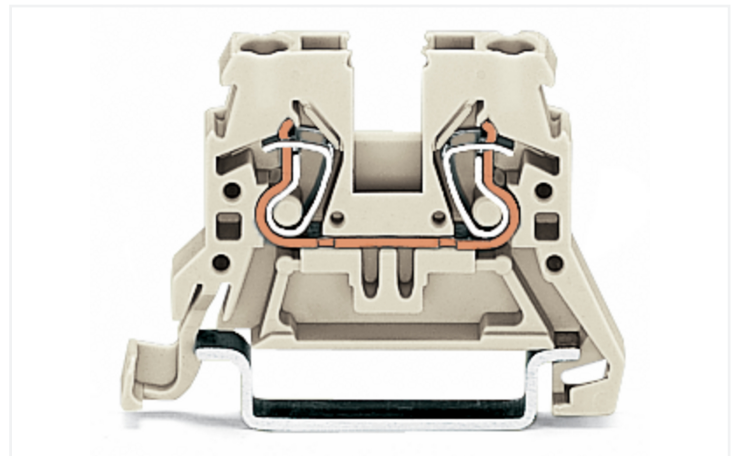
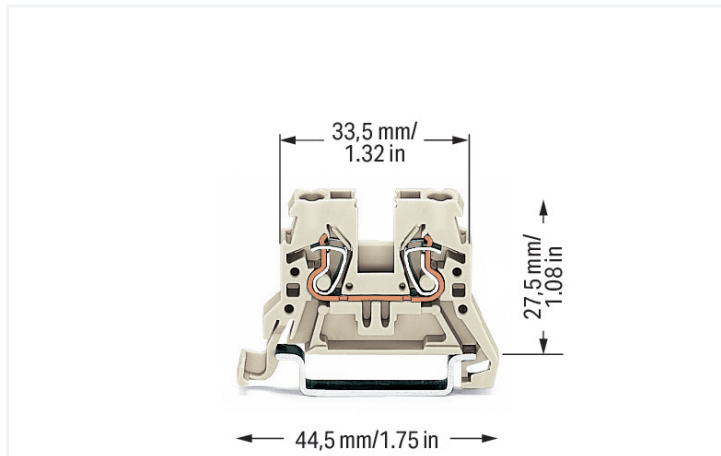


Data Sheet | Item Number: 870-909

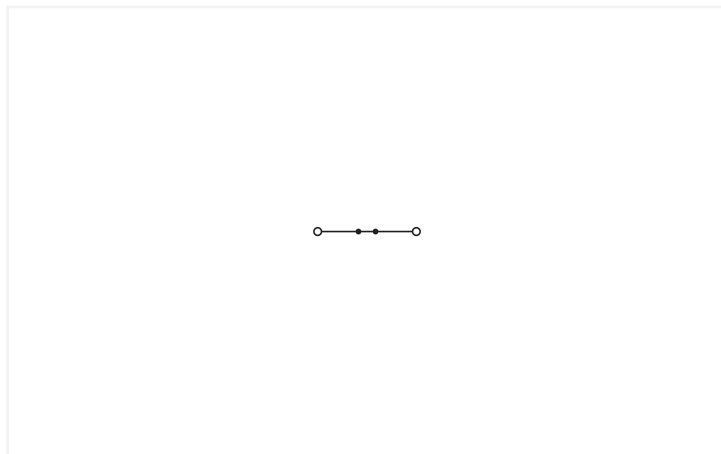
2-conductor through terminal block; 2.5 mm²; suitable for Ex e II applications; side and center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 2,50 mm²; light gray



<https://www.wago.com/870-909>



Color: ■ light gray



Similar to illustration

Through terminal block, 870 Series, light gray

This through terminal block (item number 870-909) streamlines wire connections, making them both quick and easy. Strip lengths must be between 6 and 7 mm when connecting conductors to this through terminal block. Our mini rail-mount terminal blocks are perfect for tight spaces thanks to their compact design. You can also choose from a range of mounting and actuation variants for unparalleled flexibility, making it easy to select the ideal mini terminal block for each use. Featuring conductor terminals along with CAGE CLAMP®, this connector is highly versatile. Our highly-rated 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. This through terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

An operating tool is used to operate this mini rail-mount terminal block.

Notes

Safety Information

Max. insulation diameter: 4.4 mm

Electrical data

Ratings per	IEC/EN 60947-7-1			Ex information	
	III	III	II		
Overvoltage category	III	III	II	Reference to hazardous areas	See application instructions in section "Knowledge and Downloads – Documentation – Additional Information: Technical Section; Technical Explanations"
Pollution degree	3	2	2	Rated voltage EN (Ex e II)	440 V
Nominal voltage	-	-	-		
Rated impulse withstand voltage	-	-	-		
Rated current	-	-	-		

Power Loss

Power loss, per pole (potential)	0.6437 W
Rated current I_N for power loss specification	22 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

General information

Wiring direction	Front-entry wiring
------------------	--------------------

Connection data

Clamping units	2	Connection 1	
Total number of potentials	1	Connection technology	CAGE CLAMP®
Number of levels	1	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	44.5 mm / 1.752 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 specifications can be found here
Color	light gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.08 MJ
Weight	4.3 g

Environmental requirements

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

Commercial data

Product Group	16 (Rail Mounted Terminal Blocks with CCC)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966450422
Customs tariff number	85369010000

Product Classification

UNSPSC	39121410
eCl@ss 10.0	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 9.0	EC000897
ETIM 10.0	EC000897
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / 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

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0152298-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
PRS Polski Rejestr Statków	-	TE/1094/880590/23

Approvals for hazardous areas



Approval	Standard	Certificate Name
AEx UL International Germany GmbH c/o Physikalisch Technische Bundesanstalt	UL 60079	E185892 (AEx eb II C resp. Ex eb II C)
ATEX Physikalisch Technische Bundesanstalt (PTB)	EN 60079	PTB 03 ATEX 1188 U (II 2 G Ex eb IIC Gb bzw. I M 2 Ex eb I Mb)
CCC CNEX	GB/T 3836.3	2020312313000179 (Ex eb IIC Gb, Ex eb I Mb)
IECEX Physikalisch Technische Bundesanstalt	IEC 60079	IECEX PTB 04.0018 U (Ex eb IIC Gb resp. Ex eb I Mb)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079	TÜV 12.1312 U

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 870-909	↓

Documentation

Bid Text			
870-909	19.02.2019	xml 3.62 KB	↓
870-909	31.05.2017	doc 24.50 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 870-909	↓

CAE data	
EPLAN Data Portal 870-909	↓
WSCAD Universe 870-909	↓
ZUKEN Portal 870-909	↓

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 870-925
End and intermediate plate; 2 mm thick; light gray



Item No.: 209-191
Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide; orange



Item No.: 209-190
Separator for Ex e/Ex i applications; 3 mm thick; 90 mm wide; orange



Item No.: 870-929
Separator plate; 2 mm thick; oversized; 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 Ferrule

1.2.2.1 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



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



Item No.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



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

1.2.3 Installation

1.2.3.1 Mounting accessories



Item No.: 209-106

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



Item No.: 249-117

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



Item No.: 249-116

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

1.2.4 Insulation stop

1.2.4.1 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; black

1.2.5 Jumper

1.2.5.1 Jumper



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.: 870-404

Jumper; 4-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

1.2.6 Marking

1.2.6.1 Group marker carrier



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

Adaptor; gray

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

Adaptor; gray

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

Adaptor; gray

1.2.6.2 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

1.2.6.2 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

1.2.6.3 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

1.2.7 Protective warning marker

1.2.7.1 Cover



Item No.: 280-405

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

1.2.8 Test and measurement

1.2.8.1 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

1.2.9 Tool

1.2.9.1 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

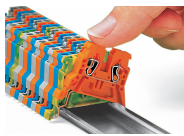


Item No.: 210-657

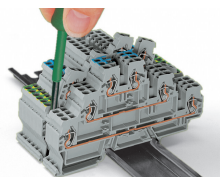
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

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.



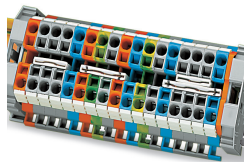
Inserting insulation stops into conductor entry holes of terminal strip.

Commoning



Push down a push-in type jumper bar evenly until fully inserted.
Push down alternately in multiple cycles for higher-pole variants.
Do not place the operating tool in the test slots of the jumper.

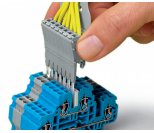
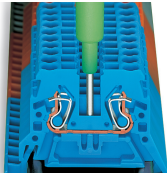
Commoning



Commoning with push-in type jumper bars:

Two parallel jumper slots are accommodated in one terminal block.

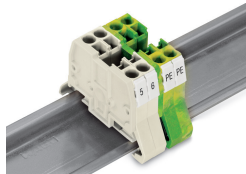
Testing



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

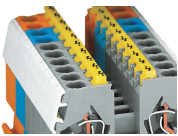
Testing is also possible using a pre-wired tap-off module assembly in the very same way as test plugs.

Ex application



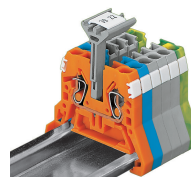
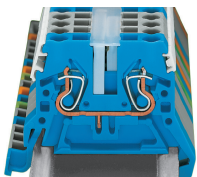
In order to meet creepage and clearance requirements for Ex e applications, it is necessary to insert an end or intermediate plate between a through and a ground conductor terminal block. End plates 870-923 (gray), 870-924 (orange) and 870-925 (light gray), as well as separator plates 870-928 (gray) and 870-929 (orange) cannot be assembled to 2-conductor ground Ex terminal blocks (870-907/999-950).

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.

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

Current addresses can be found at: www.wago.com