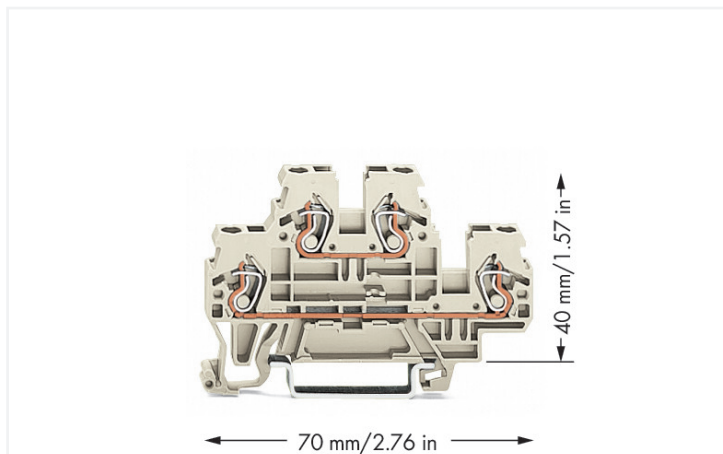


Data Sheet | Item Number: 870-961

Double-deck terminal block; Through/through terminal block; L/L; suitable for Ex e II applications; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; CAGE CLAMP®; 2,50 mm²; light gray



<https://www.wago.com/870-961>



Color: ■ light gray

Double-deck terminal block, 870 Series, CAGE CLAMP®

This double-deck terminal block (item number 870-961) is designed for seamless electrical installations. Conductors can only be connected to this double-deck terminal block if their strip length is between 6 and 7 mm. The double-deck terminal block also functions as a through terminal block. This product incorporates conductor terminals and utilizes CAGE CLAMP®. Our CAGE CLAMP® connection provides a convenient and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. This double-deck terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

Notes

Safety Information

Max. insulation diameter: 4.4 mm

Electrical data

Ratings per	IEC/EN 60947-7-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated impulse withstand voltage	-	-	-
Rated current	-	-	-

Ex information

Rated voltage EN (Ex e II) 420 V

Power Loss

Power loss, per pole (potential)	0.4309 W
Rated current I_N for power loss specification	18 A
Resistance value for specified, current-dependent power loss	0.00133 Ω

General information

Wiring direction Front-entry wiring

Connection data

Clamping units	4
Total number of potentials	2
Number of levels	2

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	70 mm / 2.756 inches
Depth from upper-edge of DIN-rail	40 mm / 1.575 inches

Mechanical data

Potential marking	L/L
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	0.168 MJ
Weight	9.9 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)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918852401
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
------------------------	-------------------------

Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
cURus UL International Germany GmbH	UL 1059	E45172

Approval	Standard	Certificate Name
ATEX-Attestation of Conformity WAGO GmbH & Co. KG	-	-

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 870-961



Documentation

Bid Text

870-961	19.02.2019	xml 3.59 KB	
870-961	31.05.2017	doc 24.50 KB	

CAD/CAE-Data

CAD data

2D/3D Models 870-961



CAE data

EPLAN Data Portal 870-961



WSCAD Universe 870-961



ZUKEN Portal 870-961



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



[Item No.: 870-518](#)

End and intermediate plate; 2 mm thick; gray

[Item No.: 870-519](#)

End and intermediate plate; 2 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.: 210-508](#)

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

1.2.1.1 Mounting accessories



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.: 209-192

Separator for Ex e/Ex i applications; 3 mm thick; 125.5 mm wide; 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



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

1.2.4 Installation

1.2.4.1 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

1.2.5 Insulation stop

1.2.5.1 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

1.2.6 Jumper

1.2.6.1 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

1.2.7 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

1.2.7.2 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; 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

1.2.7.3 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

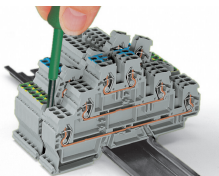


Item No.: 210-657

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

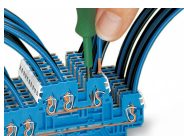
Installation Notes

Installation



Removing a terminal block from the assembly.

Conductor termination

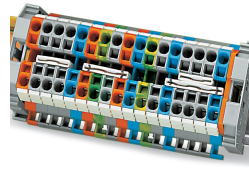


CAGE CLAMP® connection

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.

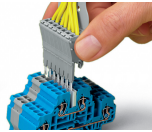
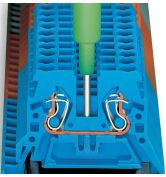
Commoning



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.

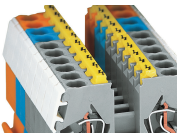
Testing



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



Use 50% less rail space with double-deck terminal blocks.

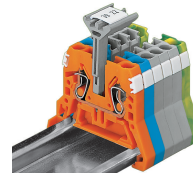
Marking



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.