

Data sheet | Item number: 281-623

2-conductor fuse terminal block; with pivoting fuse holder; for glass cartridge fuse 1/4" x 1 1/4"; without blown fuse indication; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm²; CAGE CLAMP®; 4,00 mm²; gray



Item description

Note:

Terminating Aluminum Conductors

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste is used for termination.

"Alu-Plus" Contact Paste Advantages:

- Automatically destroys the oxide film during clamping.
- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).

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



- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, **aluminum conductors must first be cleaned with a blade** and then immediately be inserted into the clamping units filled with "Alu-Plus" Contact Paste.

It is also possible to apply WAGO "Alu-Plus" **additionally** on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::

2.5 mm² = 16 A

4 mm² = 22 A

Safety information 1:

Electrical ratings are given by the fuse.

Data

Electrical data

Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60947-7-3
Nominal voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
Rated current	10 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Solid conductor	0,08 ... 4 mm ² / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 4 mm ² / 28 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch
Total number of connection points	2
Total number of potentials	2
Number of levels	1
Wiring type	Front-entry wiring

Geometrical Data

Width	10 mm / 0.394 inch
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Subject to changes. Please also observe the further product documentation!

Height from upper-edge of DIN-rail	60 mm / 2.362 inch
Depth	60 mm / 2.362 inch

Mechanical data

Design	angled
Mounting type	DIN-35 rail
Marking level	Center marking

Material Data

Color	gray
Insulation material	Polyamide 66 (PA 66)
Fire load	0.387 MJ
Weight	19.5 g

Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	CN
GTIN	4045454620684
Customs tariff number	85369095990

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CSA DEKRA Certification B.V.	C22.2 No. 158	1505034
	KEMA/KEUR DEKRA Certification B.V.	EN 60947	NTR NL-7135
	KEMA/KEUR DEKRA Certification B.V.	EN 60947	2160584.31

Ship Approvals

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

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	20- HG1941090- PDA

UL-Approvals

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

Counterpart

Compatible products

End plate

	Item no.: 281-309 End and intermediate plate; 2.5 mm thick; orange
	Item no.: 281-311 End and intermediate plate; 2.5 mm thick; gray

assembling

	Item no.: 209-106 Mounting carrier; for isolated mounting on DIN 35 rails; gray
	Item no.: 709-153 Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

General accessories

	Item no.: 249-120 Group marker carrier; white
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Subject to changes. Please also observe the further product documentation!

 **Item no.: 281-407**
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm² - 2.5 mm²; 2,50 mm²; gray

check

 **Item no.: 210-137**
Test plug; 2.3 mm Ø; with 500 mm cable; yellow

 **Item no.: 280-404**
Test plug adapter; 5 mm wide; for test plug 210-137 (2.3 mm Ø); suitable for 1.5 mm² - 4 mm² tbs; 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

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

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

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


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

ferrule

Item no.: 216-106

Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated


Item no.: 216-201

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


Item no.: 216-202

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


Item no.: 216-203

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


Item no.: 216-204

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


Item no.: 216-205

Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow


Item no.: 216-206

Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue


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; white


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; gray


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; red


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; black


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; blue

Item no.: 216-301

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


Item no.: 216-302

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

Marking accessories

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



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.: 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

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



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 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

Locking lever



Item no.: 210-254

Interlocking link; mechanically locks multiple links; 1 m long; transparent

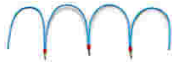
Jumper

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



Item no.: 210-103

Wire commoning chain; insulated; 50 connections; black



Item no.: 210-123

Wire commoning chain; insulated; 50 connections



Item no.: 249-123

Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm²



Item no.: 249-125

Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm²



Item no.: 249-126

Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm²



Item no.: 249-127

Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm²



Item no.: 281-402

Adjacent jumper; insulated; IN = IN terminal block; gray



Item no.: 709-110

Wire commoning chain; insulated; 4 connections; 3 x 110 mm; black



Item no.: 709-111

Wire commoning chain; insulated; 3 connections; 2 x 120 mm; black



Item no.: 709-112

Wire commoning chain; insulated; 3 connections; 2 x 170 mm; black

Downloads

Documentation

Additional Information

Technical explanations

Apr 3, 2019

CAD/CAE-Data

CAD data

2D/3D Models 281-623

CAE data

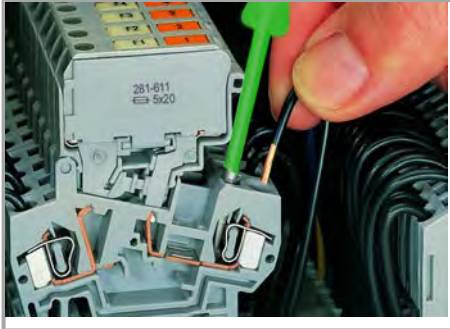
EPLAN Data Portal 281-623

WSCAD Universe 281-623

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

Installation Notes

Conductor termination

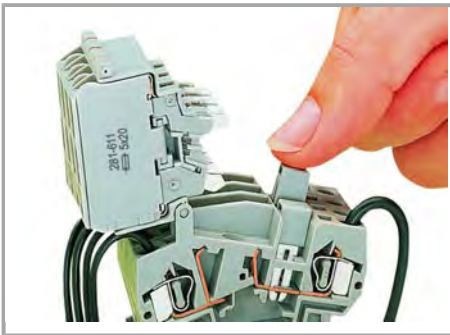


CAGE CLAMP® connection

Inserting a conductor via screwdriver.

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

Commoning

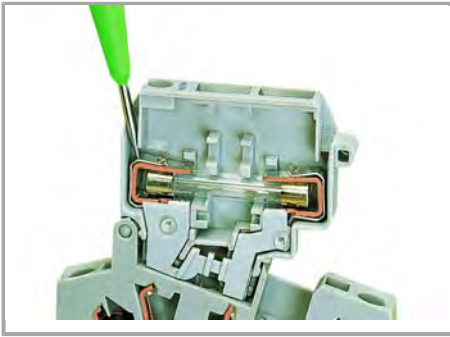


Commoning:

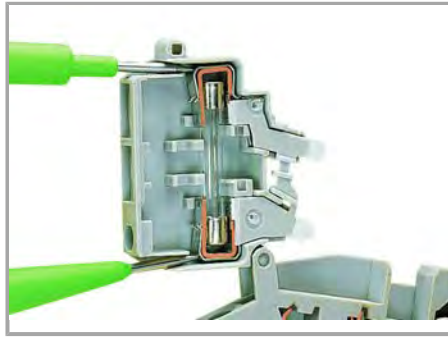
Distributing current to several fuse-protected circuits via insulated push-in type jumpers.

Testing

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



Voltage test, either at input or output with fuse holder in closed position (live)



Through test with fuse holder in open position (no voltage)



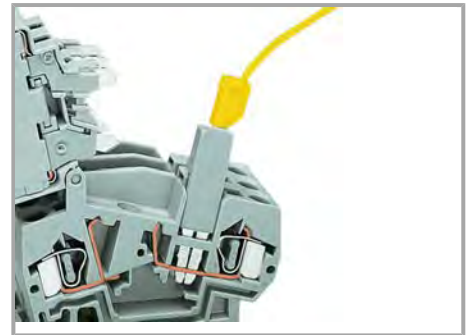
Voltage test at input in the test slot of the current bar



Testing voltage at the output via separate test slot.

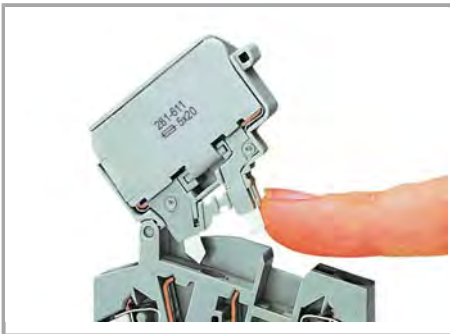


Measuring current between jumper slot and separate test slot.



Testing voltage (input side) via test plug adapter (280-404, shown) or test plug (281-407).

Safety



Touch-proof protection in all positions of the fuse holder



Fuse holder will remain safely locked open in vertical assemblies.

Locking lever

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

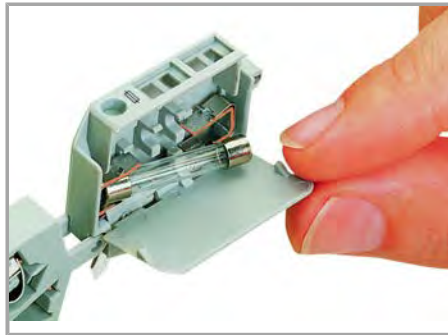


Ganging several fuse holders with an interlocking link (example shows 8 mm wide terminal blocks).



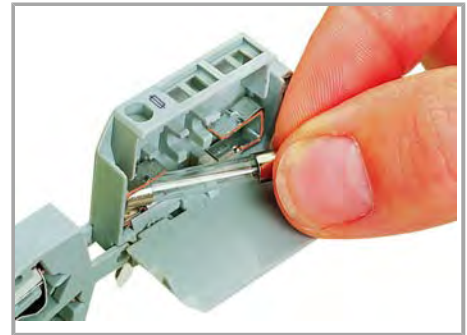
Fuse replacement:

Before replacing a fuse, pivot the fuse holder into the locked open position.



Fuse replacement:

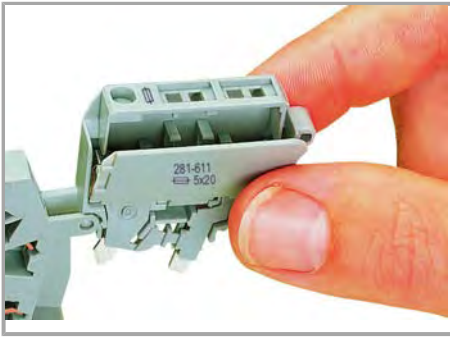
One end of the fuse is automatically ejected from the holder when opening the cover.



Fuse replacement:

Easily removing a fuse by hand.

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

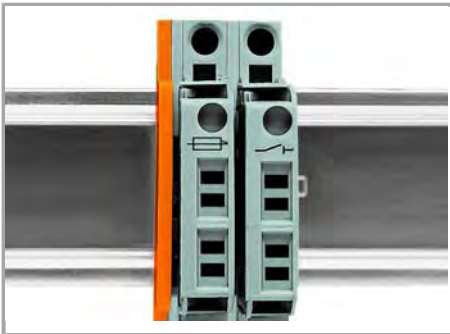


Fuse replacement:

Insert a new fuse and snap the cover closed.



Storing a spare fuse (fuse holder without blown fuse indication).



An intermediate plate is supplied with all 10 mm wide fused disconnect terminal blocks. At the end of an assembly or if there is no adjacent fused disconnect terminal block, an end or intermediate plate must be used.

Marking

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



Fuse holders are printed with correct fuse size.



Each fuse holder features two marker slots for custom WMB Multi markers (example shows 8 mm wide terminal blocks).

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