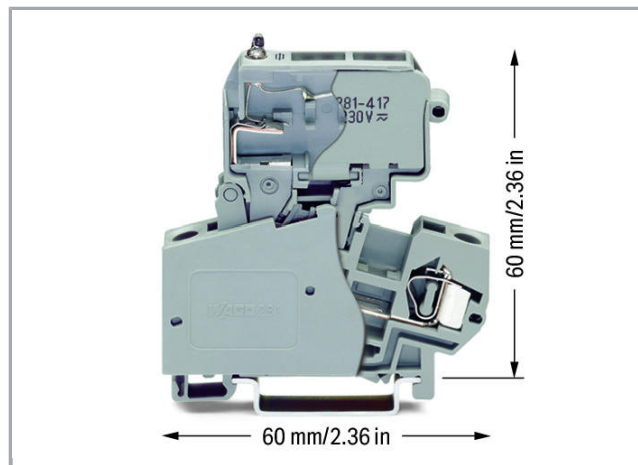
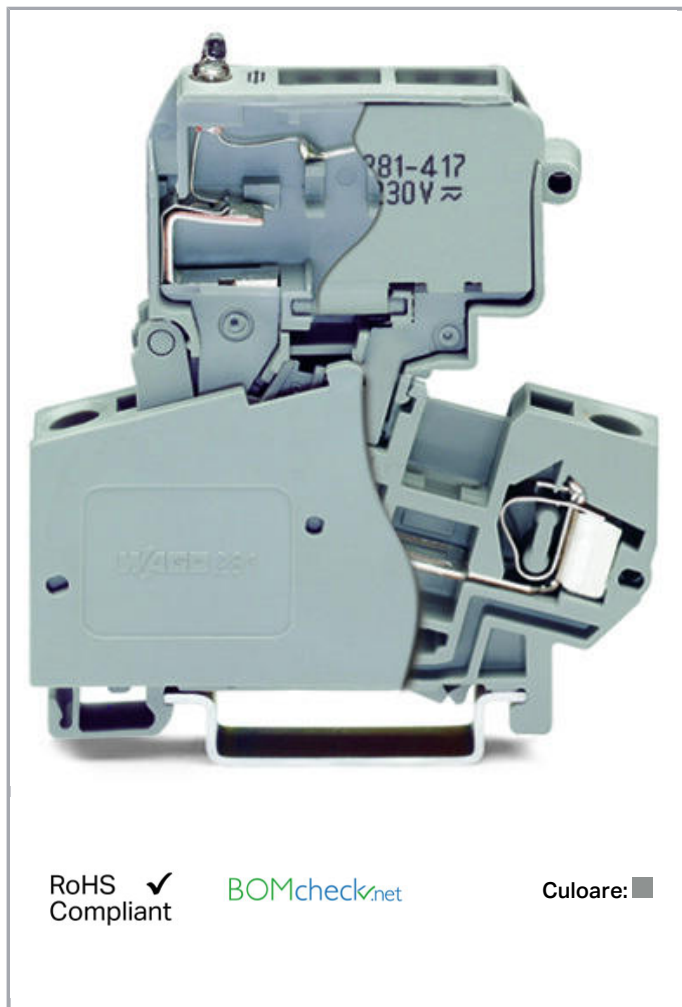


Fișă tehnică | Număr articol: 281-613/281-417

2-conductor fuse terminal block; with pivoting fuse holder; for miniature metric fuse 1/4 x 1 mm; with blown fuse indication by neon lamp; 230 V; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm²; CAGE CLAMP®; 4,00 mm²; gray

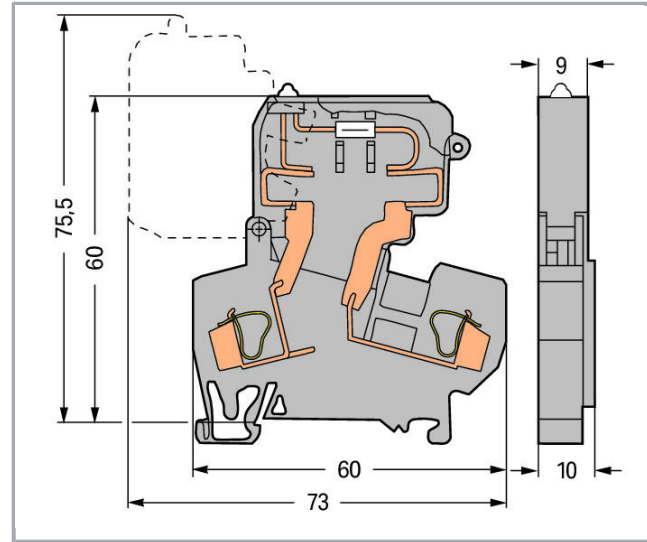
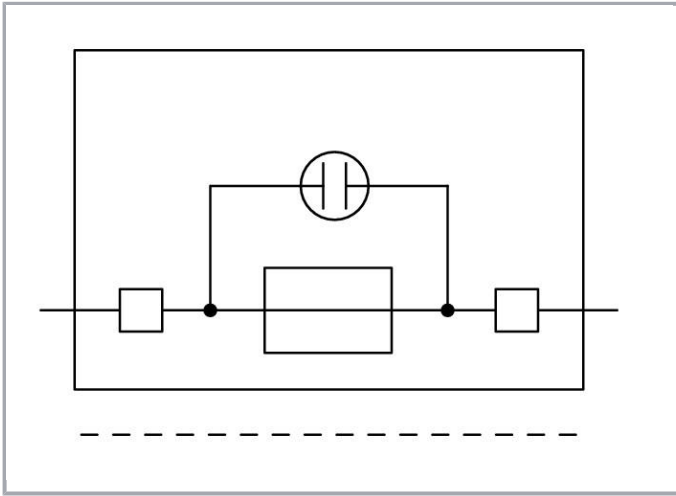
www.wago.com/281-613/281-417



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Descriere articol

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).
- 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 and blown fuse indication.

Safety information 2:

Leakage current in case of a blown fuse: Neon lamp < 0.4 mA

Supus modificărilor.

Date

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
Operation status indicator	230 V
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
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

Supus modificărilor.

Material Data




Color	gray
Insulation material	Polyamide 66 (PA 66)
Fire load	0,395 MJ
Weight	20,1 g

Commercial data


Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4045454197025
Customs tariff number	85369095990

Aprobări / certificate

Country specific Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	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

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	ABS American Bureau of Shipping	-	20-HG1941090-PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

Supus modificărilor.





UL-Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	UR Underwriters Laboratories Inc.	UL 1059	E45172



Counterpart

Produse compatibile


check

	Nr. articol: 210-137 Test plug; 2.3 mm Ø; with 500 mm cable; yellow	www.wago.com/210-137
	Nr. articol: 280-404 Test plug adapter; 5 mm wide; for test plug 210-137 (2.3 mm Ø); suitable for 1.5 mm ² - 4 mm ² tbs; gray	www.wago.com/280-404

General accessories

	Nr. articol: 249-120 Group marker carrier; white	www.wago.com/249-120
	Nr. articol: 281-407 Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm ² - 2.5 mm ² ; 2,50 mm ² ; gray	www.wago.com/281-407


assembling

	Nr. articol: 209-106 Mounting carrier; for isolated mounting on DIN 35 rails; gray	www.wago.com/209-106
	Nr. articol: 709-153 Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent	www.wago.com/709-153


Supus modificărilor.




Carrier rail

	Nr. articol: 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	www.wago.com/210-112
	Nr. articol: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715	www.wago.com/210-113
	Nr. articol: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715	www.wago.com/210-114
	Nr. articol: 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	www.wago.com/210-115
	Nr. articol: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	www.wago.com/210-118
	Nr. articol: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/210-196
	Nr. articol: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	www.wago.com/210-197
	Nr. articol: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	www.wago.com/210-198
	Nr. articol: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715	www.wago.com/210-504
	Nr. articol: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715	www.wago.com/210-505
	Nr. articol: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715	www.wago.com/210-506
	Nr. articol: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715	www.wago.com/210-508

Locking lever

	Nr. articol: 210-254 Interlocking link; mechanically locks multiple links; 1 m long; transparent	www.wago.com/210-254
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End plate















	Nr. articol: 281-309 End and intermediate plate; 2.5 mm thick; orange	www.wago.com/281-309
	Nr. articol: 281-311 End and intermediate plate; 2.5 mm thick; gray	www.wago.com/281-311

Marking accessories

Supus modificărilor.

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Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

	Nr. articol: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-115
	Nr. articol: 2009-115/000-002 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-115/000-002
	Nr. articol: 2009-115/000-006 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	www.wago.com/2009-115/000-006
	Nr. articol: 2009-115/000-007 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	www.wago.com/2009-115/000-007
	Nr. articol: 2009-115/000-012 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	www.wago.com/2009-115/000-012
	Nr. articol: 2009-115/000-017 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	www.wago.com/2009-115/000-017
	Nr. articol: 2009-115/000-023 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	www.wago.com/2009-115/000-023
	Nr. articol: 2009-115/000-024 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	www.wago.com/2009-115/000-024
	Nr. articol: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/793-501
	Nr. articol: 793-501/000-002 WMB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/793-501/000-002
	Nr. articol: 793-501/000-005 WMB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/793-501/000-005
	Nr. articol: 793-501/000-006 WMB marking card; as card; not stretchable; plain; snap-on type; blue	www.wago.com/793-501/000-006
	Nr. articol: 793-501/000-007 WMB marking card; as card; not stretchable; plain; snap-on type; gray	www.wago.com/793-501/000-007
	Nr. articol: 793-501/000-012 WMB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/793-501/000-012

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**Nr. articol: 793-501/000-017**

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

www.wago.com/793-501/000-017**Nr. articol: 793-501/000-023**

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

www.wago.com/793-501/000-023**Nr. articol: 793-501/000-024**

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

www.wago.com/793-501/000-024**Nr. articol: 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

www.wago.com/793-5501**Nr. articol: 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

www.wago.com/793-5501/000-002**Nr. articol: 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

www.wago.com/793-5501/000-005**Nr. articol: 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

www.wago.com/793-5501/000-006**Nr. articol: 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

www.wago.com/793-5501/000-007**Nr. articol: 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

www.wago.com/793-5501/000-012**Nr. articol: 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

www.wago.com/793-5501/000-017**Nr. articol: 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

www.wago.com/793-5501/000-023**Nr. articol: 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

www.wago.com/793-5501/000-024**tools****Nr. articol: 210-657**


















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

www.wago.com/210-657**Nr. articol: 210-658**

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

www.wago.com/210-658








Supus modificărilor.

	Nr. articol: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	www.wago.com/210-720
Jumper		
	Nr. articol: 210-103 Wire commoning chain; insulated; 50 connections; black	www.wago.com/210-103
	Nr. articol: 210-123 Wire commoning chain; insulated; 50 connections	www.wago.com/210-123
	Nr. articol: 249-123 Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-123
	Nr. articol: 249-125 Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-125
	Nr. articol: 249-126 Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-126
	Nr. articol: 249-127 Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm ²	www.wago.com/249-127
	Nr. articol: 281-402 Adjacent jumper; insulated; IN = IN terminal block; gray	www.wago.com/281-402
	Nr. articol: 709-110 Wire commoning chain; insulated; 4 connections; 3 x 110 mm; black	www.wago.com/709-110
	Nr. articol: 709-111 Wire commoning chain; insulated; 3 connections; 2 x 120 mm; black	www.wago.com/709-111
	Nr. articol: 709-112 Wire commoning chain; insulated; 3 connections; 2 x 170 mm; black	www.wago.com/709-112
ferrule		
	Nr. articol: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated	www.wago.com/216-106
	Nr. articol: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Nr. articol: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Nr. articol: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Nr. articol: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Nr. articol: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; insulated; electro-tin plated; yellow	www.wago.com/216-205

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	Nr. articol: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; blue	www.wago.com/216-206
	Nr. articol: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Nr. articol: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Nr. articol: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	Nr. articol: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-244
	Nr. articol: 216-246 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	www.wago.com/216-246
	Nr. articol: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Nr. articol: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302

Descărcări

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 2,1 MB	Descărcare
------------------------	-------------	---------------	------------

CAD/CAE-Data

CAD data

2D/3D Models 281-613/281-417	URL	Descărcare
------------------------------	-----	------------

CAE data

EPLAN Data Portal 281-613/281-417	URL	Descărcare
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WSCAD Universe 281-613/281-417	URL	Descărcare
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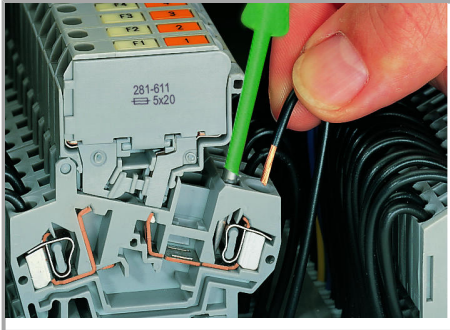
Supus modificărilor.

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Installation Notes

Conductor termination

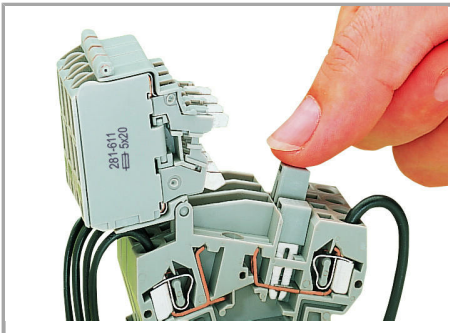


CAGE CLAMP® connection

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

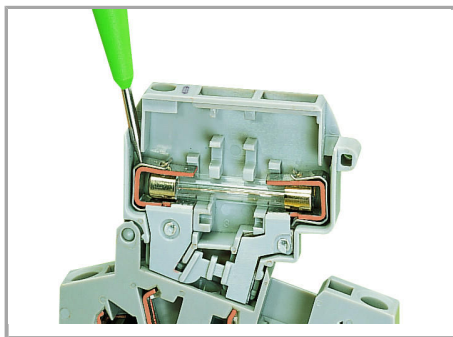


Commoning:

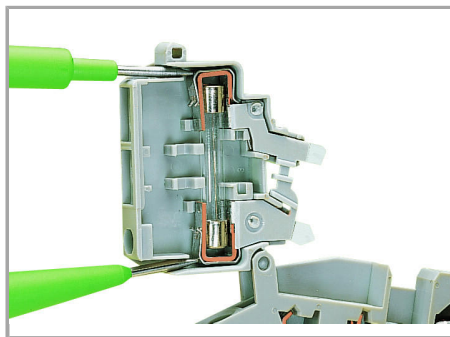
Distributing current to several fuse-protected circuits via insulated push-in type jumpers.

Testing

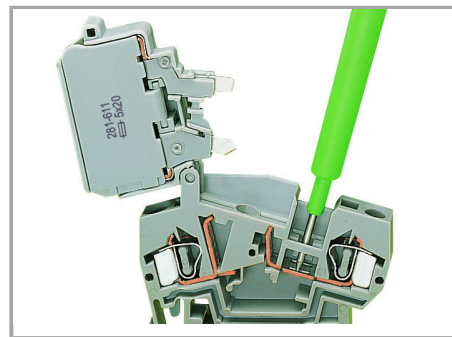
Supus modificărilor.



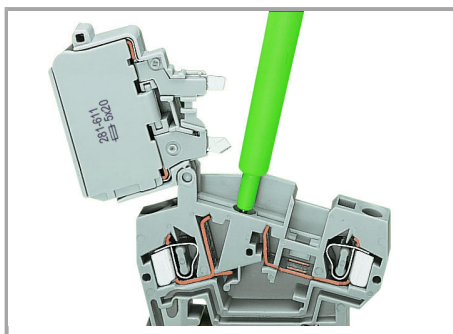
Voltage test, either at input or output with fuse holder in closed position (live)



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



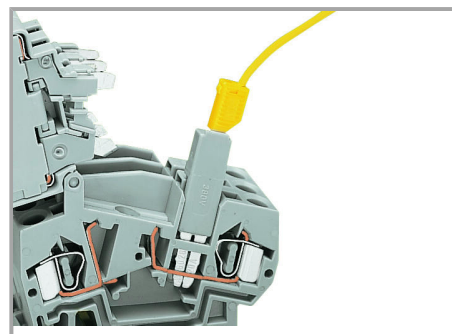
Voltage test at input in the test slot of the current bar



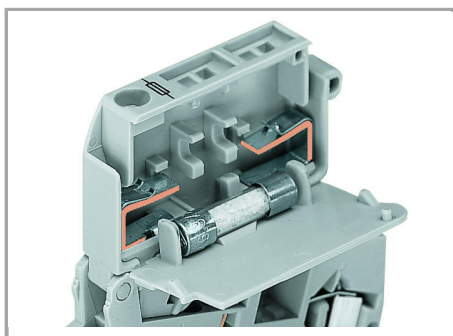
Testing voltage at the output via separate test slot.



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).



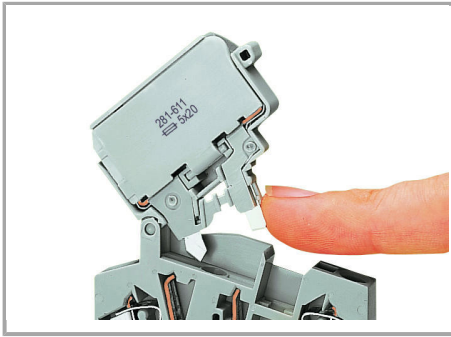
5 x 20 mm, 5 x 25 mm and 1/4" x 1" fuse holders are fitted with stops on the inside of the cover.

Safety

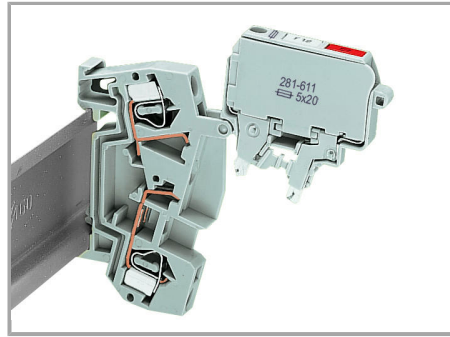
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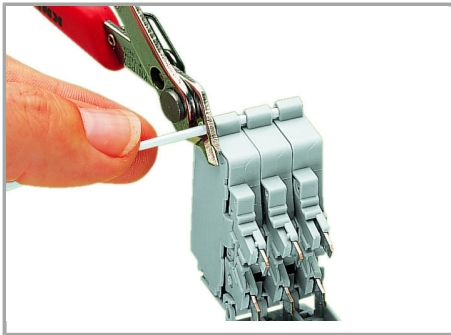


Touch-proof protection in all positions of the fuse holder



Fuse holder will remain safely locked open in vertical assemblies.

Locking lever

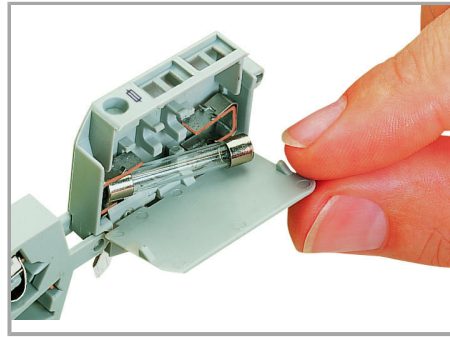


Ganging several fuse holders with an interlocking link (example shows 8 mm wide terminal blocks).

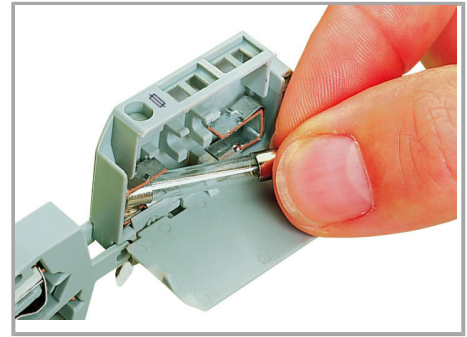
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Fuse replacement:



Fuse replacement:

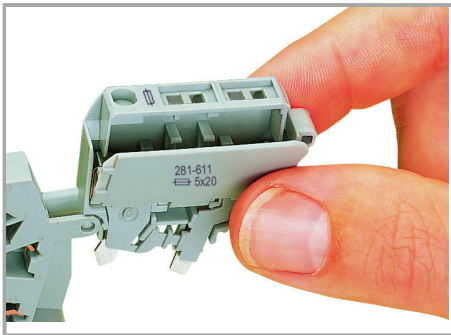


Fuse replacement:

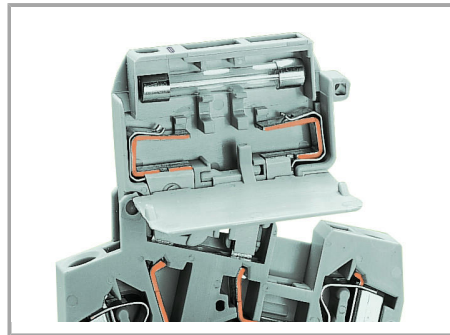
Before replacing a fuse, pivot the fuse holder into the locked open position.

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

Easily removing a fuse by hand.



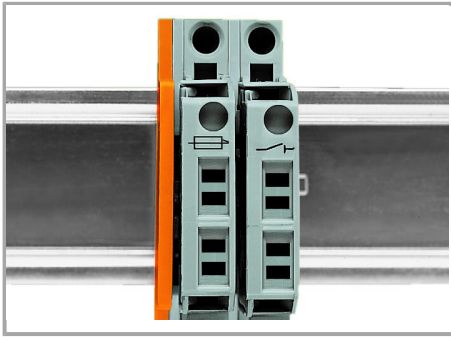
Fuse replacement:



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

Insert a new fuse and snap the cover closed.

Supus modificărilor.

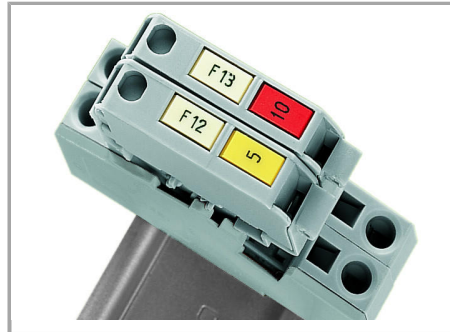


An intermediate plate is supplied with all 10 mm wide fused disconnect terminal blocks. At the end of an assembly or if there is **no** adjacent fused disconnect terminal block, an end or intermediate plate must be used.

Marking



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).

Supus modificărilor.