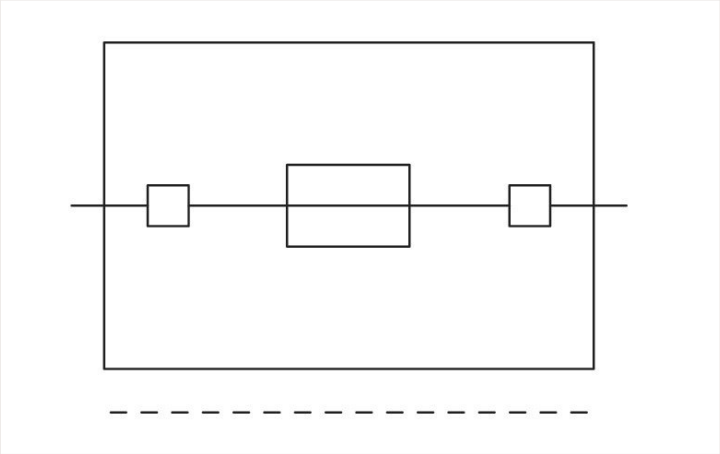
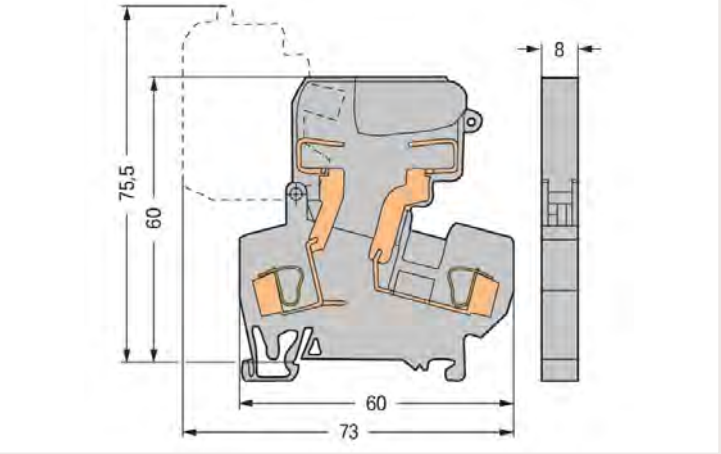
|: 281-611

2-conductor fuse terminal block; with pivoting fuse holder; for 5 x 20 mm miniature metric fuse; without blown fuse indication; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm²; CAGE CLAMP®; 4,00 mm²; gray

: gray





Dimensions in mm

Fused disconnect terminal block with a pivoting fuse holder, for (5 x 20) mm glass cartridge fuse, without blown fuse indication (281-611)

Electrical data

Fuse receptacle	pivoting
Fuse type	Cylindrical fuse; 5 x 20 mm

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-3
Ratings (note)	Electrical ratings are given by the fuse.
Nominal voltage (III/3)	800 V
Rated impulse voltage (III/3)	8 kV
Rated current	10 A
Operation status indicator	none
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Power loss

Power loss (max.) $P_{l\,(max.)}$ (note)	When selecting glass cartridge fuses, make sure that the maximum power loss listed below is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23°C. The temperature rise of the terminal block must be checked according to their application and mounting. Higher ambient temperatures represent an additional impact on miniature fuses. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the manufacturers.
Power loss P_l max. overload and short-circuit protection (individual arrangement)	2.5 W
Power loss P_l max. overload and short-circuit protection (group arrangement)	1.6 W
Power loss P_l max. short-circuit protection (individual arrangement)	4 W
Power loss P_l max. short-circuit protection (group arrangement)	4 W

Connection data

Total number of connection points	2
Total number of potentials	2
Number of levels	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum

Connection 1

Connectable conductor materials (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 249-130 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
Solid conductor	0.08 … 4 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Wiring direction	Front-entry wiring

Physical data

Width	8 mm / 0.315 inches
Height	60 mm / 2.362 inches
Depth from upper-edge of DIN-rail	60 mm / 2.362 inches

Mechanical data

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

Material data

Note (material data)	Information on material data can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.327 MJ
Weight	17.3 g

Environmental requirements

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

Commercial data

Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-16
eCl@ss 9.0	27-14-11-16
ETIM 8.0	EC000899
ETIM 7.0	EC000899
PU (SPU)	50 Stück
Packaging type	Box
Country of origin VKOrg Germany	IN
GTIN	4045454614591
Customs tariff number VKOrg Germany	85369095000

Approvals and certificates

Country specific Approvals

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

ABS American Bureau of Shipping	-	20-HG1941090-PDA

UL-Approvals

UR UL International Germany GmbH	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 281-611

Documentation

Additional Information

Technical Section	pdf 2142.18 KB	

Bid Text

281-611	19.02.2019	xml 3.44 KB
281-611	09.03.2017	doc 25.00 KB

CAD/CAE-Data

CAD data

2D/3D Models 281-611

CAE data

EPLAN Data Portal
281-611

WSCAD Universe
281-611

ZUKEN Portal 281-611

1 Compatible products

1.1 Required accessories

1.1.1 End plate

1.1.1.1 End plate

: 281-311
End and intermediate plate; 2.5 mm thick; gray

: 281-309
End and intermediate plate; 2.5 mm thick; orange

1.2 Optional accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories

: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored

: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored

: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored

: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

: 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

: 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

: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored

: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

: 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

: 216-301
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

: 216-302
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise

: 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

: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

: 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

: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

: 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

: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

: 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

: 216-205
Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow

: 216-206
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue

: 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

: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

1.2.3 Installation

1.2.3.1 Mounting accessories

: 709-167
Cover carrier; Type 1; incl. fixing/retaining screws and knurled nut; suitable for 279 to 282 and 880 Series rail-mounted terminal blocks; suitable for 264 Series miniature rail-mounted terminal blocks; suitable for 270 Series sensor and actuator terminal blocks; gray

: 709-153
Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

: 209-106
Mounting carrier; for isolated mounting on DIN 35 rails; gray

: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Jumper

1.2.4.1 Jumper

: 281-402
Jumper; insulated; gray

: 709-110
Wire commoning chain; 2.5 mm²; insulated; black

: 709-111
Wire commoning chain; 2.5 mm²; insulated; black

: 709-112
Wire commoning chain; 2.5 mm²; insulated; black

: 210-103
Wire commoning chain; insulated; black

: 210-123
Wire commoning chain; insulated; blue

1.2.5 Locking system

1.2.5.1 Locking system

: 210-254
Interlocking link; mechanically locks multiple links; 1 m long; transparent

1.2.6 Marking

1.2.6.1 Marker

: 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

: 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

: 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

: 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

: 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

: 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

: 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

: 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

: 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

: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray

: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green

: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white

: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

: 2009-115/000-006
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

: 2009-115/000-007
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

: 2009-115/000-023
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

: 2009-115/000-017
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

: 2009-115/000-024
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

: 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 Push-in type wire jumper

1.2.7.1 Jumper

: 249-126
Push-in type wire jumper; 0.75 mm²; insulated; 110 mm long; black

: 249-123
Push-in type wire jumper; 0.75 mm²; insulated; 180 mm long; black

: 249-127
Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black

: 249-125
Push-in type wire jumper; insulated; 60 mm long; black

1.2.8 Test and measurement

1.2.8.1 Testing accessories

: 280-404
Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm² - 4 mm² tbs; gray

: 281-407
Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm² - 2.5 mm²; 2,50 mm²; gray

1.2.9 Tool

1.2.9.1 Operating tool

: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation notes

Conductor termination

CAGE CLAMP® connection
Inserting a conductor.
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

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 ¼" x 1" fuse holders are fitted with stops on the inside of the cover.

Security

Touch-proof protection in all positions of the fuse holder

Fuse holder will remain safely locked open in vertical assemblies.

Locking system

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.

Fuse replacement:
Insert a new fuse and snap the cover closed.

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

Fused disconnect or disconnect terminal blocks with a width of 8 mm can be assembled adjacently. At the end of an assembly, or if there is no adjacent fused disconnect or disconnect terminal block, an end or intermediate plate must be used.

Marking

All 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).