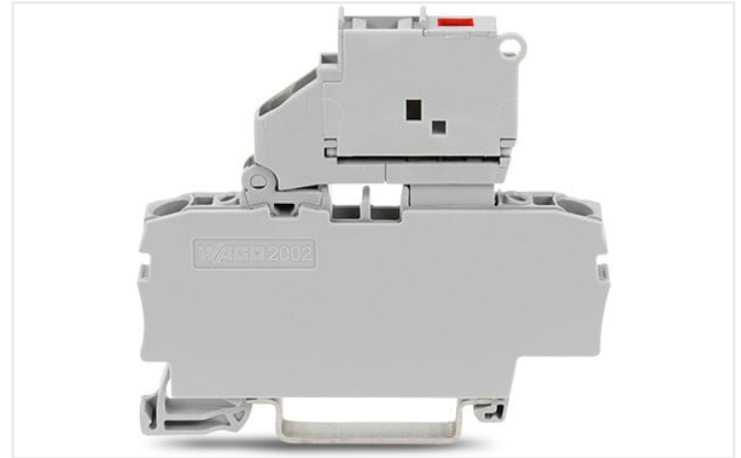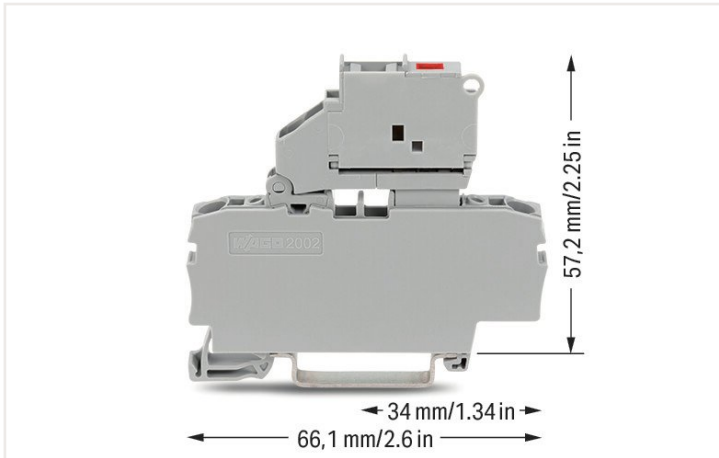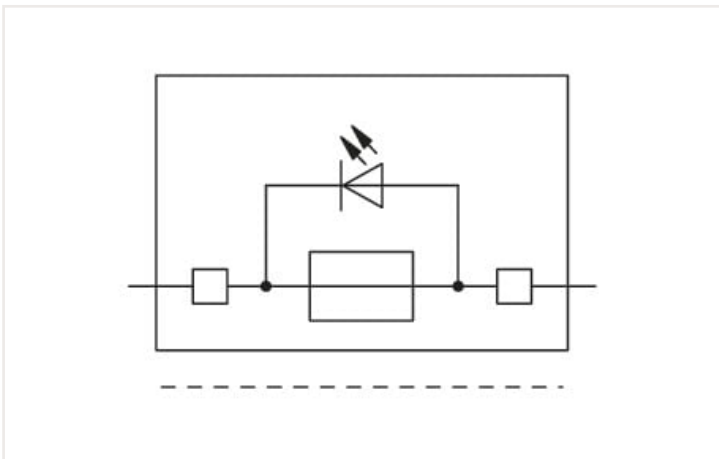# Data sheet | Item number: 2002-1611/1000-541

2-conductor fuse terminal block; with pivoting fuse holder; with end plate; for 5 x 20 mm miniature metric fuse; with blown fuse indication by LED; 12 - 30 V; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm²; Push-in CAGE CLAMP®; 2,50 mm²; gray

https://www.wago.com/2002-1611/1000-541

Color: ■ gray

2002-1611/1000-541

Electrical data

Fuse receptacle	pivoting
Fuse type	Cylindrical fuse; 5 x 20 mm
Power loss (max.) Pl (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.

Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-3
Ratings (note)	Electrical ratings are given by the fuse and blown fuse indication.
Nominal voltage (III/3)	250 V
Rated impulse voltage (III/3)	6 kV
Rated current	6.3 A
Note (rated current)	Leakage current in case of a blown fuse: LED 2 mA
Operation status indicator	12 ... 30 V
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Ratings per UL

Approvals per	UL 1059
Rated voltage UL (Use Group B)	30 V
Rated current UL (Use Group B)	10 A
Rated voltage UL (Use Group C)	30 V
Rated current UL (Use Group C)	10 A

Ratings per UL

Rated voltage UL (Use Group D)	30 V
Rated current UL (Use Group D)	10 A

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Ratings per CSA

Approvals per	C22.2 No 158
Rated current CSA (Use Group B)	10 A
Rated current CSA (Use Group C)	10 A

Ex information

Reference hazardous areas	See Downloads – Documentation – Additional Information: Technical Section; Technical explanations
Ratings per	ATEX: KIWA 17 ATEX 0030 U / IECEx: KIWA 17.0014U (Ex ec IIC Gc)
Rated voltage EN (Ex e II)	24 V
Rated current (Ex e II)	6.3 A

Connection data

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

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-in Operating tool
Connectable conductor materials	Copper
Nominal cross-section	2.5 mm²
Solid conductor	0.25 … 4 mm² / 22 … 12 AWG
Solid conductor; push-in termination	0.75 … 4 mm² / 18 … 12 AWG
Fine-stranded conductor	0.25 … 4 mm² / 22 … 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 2.5 mm² / 22 … 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1 … 2.5 mm² / 18 … 14 AWG
Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	10 … 12 mm / 0.39 … 0.47 inch
Wiring direction	Front-entry wiring

Physical data

Width	6.2 mm / 0.244 inch
Height	66.1 mm / 2.602 inch
Depth from upper-edge of DIN-rail	57.2 mm / 2.252 inch

Mechanical data

Mounting type	DIN-35 rail
Marking level	Center/side marking

Material data

Note (material data)	Information on material data can be found here
Color	gray
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.282 MJ
Weight	13.4 g

Commercial data

Product Group	22 (TOPJOB S)
eCl@ss 10.0	27-14-11-16
eCl@ss 9.0	27-14-11-16
ETIM 7.0	EC000899
ETIM 6.0	EC000899
PU (SPU)	50 Stück
Packaging type	Box
Country of origin VKOrg Germany	CN
GTIN	4045454789985
Customs tariff number VKOrg Germany	85369095000

Approvals / Certificates

Ex-Approvals

Approval	Standard	Certificate name
AEx Underwriters Laboratories Inc.	UL 60079	E185892 (AEx eb IIC resp. Ex eb IIC)
ATEX KIWA Netherlands B.V.	EN 60079	KIWA 17ATEX0030 U
CCCEx CQST/CNEx	CNCA-C23-01	2020312313000180
IECEx KIWA Netherlands B.V.	EN 60079	IECEx KIWA 17.0014U (Ex ec IIC Gc)

Country specific Approvals

Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 60947	71-107687
CCA DEKRA Certification B.V.	EN 60947	NTR NL 7730

Ship Approvals

Approval	Standard	Certificate name
ABS American Bureau of Shipping	EN 60947	20-HG1941090-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

UL-Approvals

Approval	Standard	Certificate name
UL Underwriters Laboratories Inc.	UL 1059	E45172

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 2002-1611/1000-541	↓

Documentation

Additional Information

Technical Section	pdf 2142.18 KB	↓

Bid Text

2002-1611/1000-541	29.04.2019	xml 4.29 KB	↓
2002-1611/1000-541	23.04.2019	docx 15.45 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models 2002-1611/1000-541	↓

CAE data

EPLAN Data Portal 2002-1611/1000-541	↓
WSCAD Universe 2002-1611/1000-541	↓
ZUKEN Portal 2002-1611/1000-541	↓

1 Compatible products

1.1 Optional accessories

1.1.1 DIN-rail

1.1.1.1 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

1.1.2 End plate

1.1.2.1 End plate

Item no.: 2002-991
End plate for fuse terminal blocks; 2 mm thick; gray

Item no.: 2002-992
End plate for fuse terminal blocks; 2 mm thick; orange

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

1.1.3 Ferrule

1.1.3.1 Ferrule

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.: 216-262
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.: 216-263
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.: 216-264
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.: 216-266
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

1.1.4 Installation

1.1.4.1 Mounting accessories

Item no.: 709-169
Cover carrier; Type 3; gray

Item no.: 709-156
Cover; Type 3; suitable for cover carrier, type 3; 1 m long; transparent

1.1.5 Insulation stop

1.1.5.1 Insulation stop

Item no.: 2002-171
Insulation stop; 0.25 - 0.5 mm²; 5 pieces/strip; light gray

Item no.: 2002-172
Insulation stop; 0.75 - 1 mm²; 5 pieces/strip; dark gray

1.1.6 Jumper

1.1.6.1 Jumper

Item no.: 2004-406/020-000
Delta jumper; insulated; light gray

Item no.: 2004-410
Jumper; 10-way; insulated; light gray

Item no.: 2004-402
Jumper; 2-way; insulated; light gray

Item no.: 2004-403
Jumper; 3-way; insulated; light gray

Item no.: 2004-404
Jumper; 4-way; insulated; light gray

Item no.: 2004-405
Jumper; 5-way; insulated; light gray

Item no.: 2004-406
Jumper; 6-way; insulated; light gray

Item no.: 2004-407
Jumper; 7-way; insulated; light gray

Item no.: 2004-408
Jumper; 8-way; insulated; light gray

Item no.: 2004-409
Jumper; 9-way; insulated; light gray

Item no.: 2004-440
Jumper; from 1 to 10; insulated; light gray

Item no.: 2004-433
Jumper; from 1 to 3; insulated; light gray

Item no.: 2004-434
Jumper; from 1 to 4; insulated; light gray

Item no.: 2004-435
Jumper; from 1 to 5; insulated; light gray

Item no.: 2004-436
Jumper; from 1 to 6; insulated; light gray

Item no.: 2004-437
Jumper; from 1 to 7; insulated; light gray

1.1.6.1 Jumper

Item no.: 2004-438
Jumper; from 1 to 8; insulated; light gray

Item no.: 2004-439
Jumper; from 1 to 9; insulated; light gray

Item no.: 2004-405/011-000
Star point jumper; 3-way; insulated; light gray

Item no.: 210-103
Wire commoning chain; insulated; black

Item no.: 210-123
Wire commoning chain; insulated; blue

1.1.7 Locking system

1.1.7.1 Locking system

Item no.: 210-254
Interlocking link; mechanically locks multiple links; 1 m long; transparent

1.1.8 Marking

1.1.8.1 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.: 793-5501/000-014
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

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.: 793-5501/000-017
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.: 793-5501/000-012
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

1.1.8.1 Marker

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.: 2009-115/000-005
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

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

1.1.8.2 Marking strip

Item no.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.1.9 Protective warning marker

1.1.9.1 Cover

Item no.: 2002-115
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.1.10 Test and measurement

1.1.10.1 Testing accessories

Item no.: 210-136
Test plug; 2 mm Ø; with 500 mm cable; red

1.1.11 Tool

1.1.11.1 Operating tool

Item no.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured
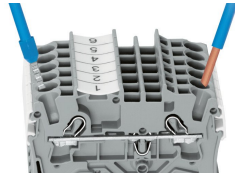
Item no.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured
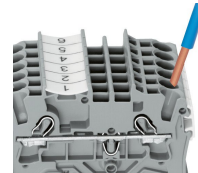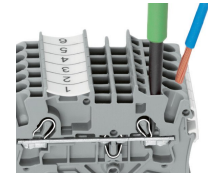
Installation notes

Conductor termination
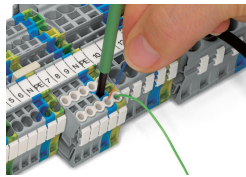
All conductor types at a glance

Push-in termination of solid and ferruled conductors

Inserting a conductor via push-in termination:
Solid conductors with cross-sections from either one size above, or up to two sizes below, the rated cross-section can be simply pushed in – no tools needed.
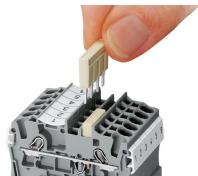
Inserting a conductor via operating tool:
Connecting fine-stranded conductors without ferrules, or small cross-sectional conductors that cannot be pushed in, is performed similarly to the original CAGE CLAMP® – just use an operating tool.
Advantage:
To open the clamp, the operating tool is inserted vertically. The conductor entry is less than 15 degrees for easier wiring.
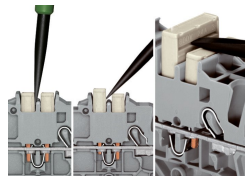
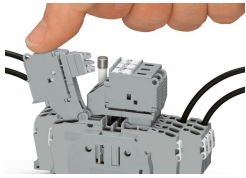Conductor termination – insulation stop

Commoning

Insert push-in type jumper bar and push down until it hits backstop..

Removing a push-in type jumper bar:
Insert the operating tool between the jumper and partition wall of the dual jumper slots, then lift up the jumper.
Place the operating tool in the center of jumpers for up to five contacts (see above), or alternately on both sides for jumpers with more than five contacts.

Fuse terminal blocks with a width of 6.2 mm/0.244 in can be assembled adjacently. If there is no adjacent fuse terminal block at the end of the assembly, an end plate must be used.
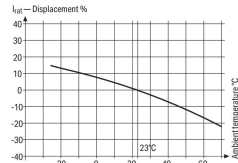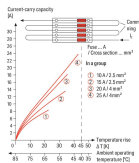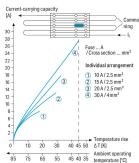
Fused Disconnect Terminal Block with a Pivoting Fuse Holder
Pivot the fuse holder into the locked open position.

Fused disconnect terminal block with a pivoting fuse holder
Fuse replacement

Series Item No.	Overload and short circuit protection		Short circuit protection only	
	Individual argmt.	Group argmt.	Individual argmt.	Group argmt.
Fuse terminal blocks				
2002-1611				
2002-1711	1.6 W	1.6 W	2.5 W	2.5 W
2002-1811				
2002-1611/…-…				
2002-1711/…-…	1.6 W	1.6 W	2.5 W	2.5 W
2002-1811/…-…				

Glass cartridge fuse 5 x 20

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.
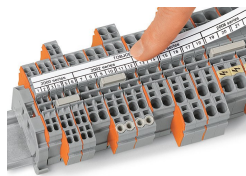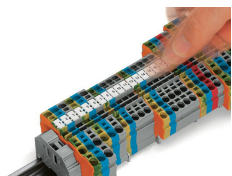

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Diagram: "Individual Arrangement"

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Diagram: "Block Arrangement"

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/Part 3 (for a surrounding air temperature of 23°C).
Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).

Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.

Marking

Snapping WMB Inline markers into marker slots.

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

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

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