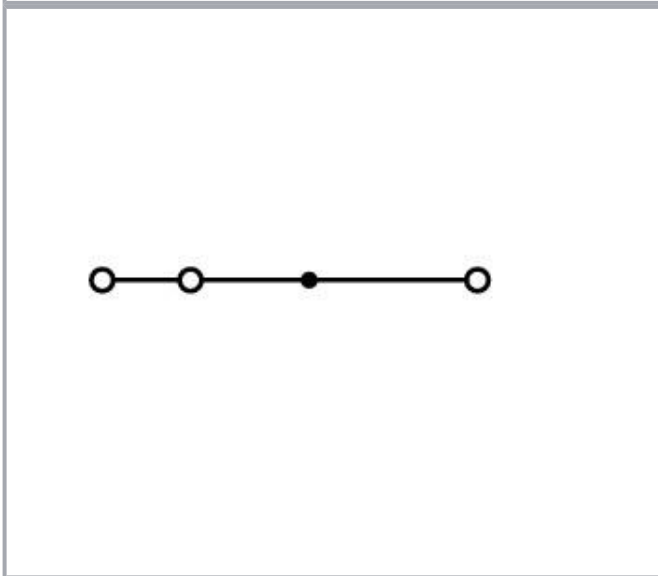
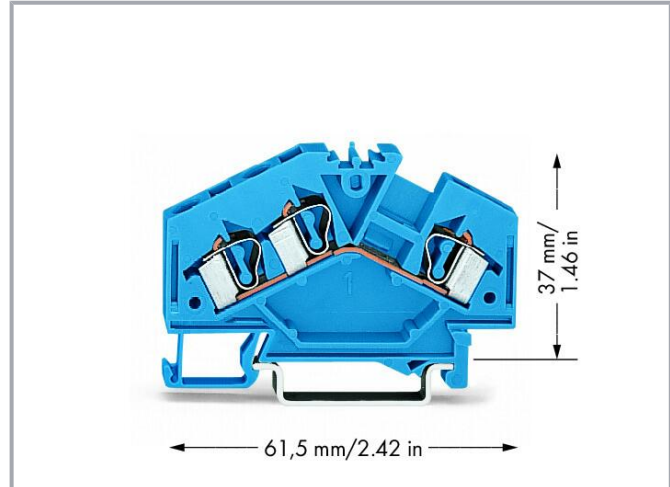


**Data sheet | Item number: 281-651**

3-conductor through terminal block; 4 mm<sup>2</sup>; suitable for Ex i applications;  
center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 4,00 mm<sup>2</sup>;  
blue



[www.wago.com/281-651](http://www.wago.com/281-651)



**Data**

**Electrical data**

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

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Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.

## Ratings per IEC/EN

Ratings per	IEC/EN 60947-7-1
Nominal voltage (III/3)	800 V
Rated impulse voltage (III/3)	8 kV
Rated current	32 A
Legend (ratings)	(III / 3) $\triangleq$ Overvoltage category III / Pollution degree 3

## Power loss

Power loss, per pole (potential)	1.024 W
Rated current $I_N$ for specified power loss	32 A
Resistance value for specified, current-dependent power loss	0.001 $\Omega$

## Connection data

Connection points	3
Total number of potentials	1
Number of levels	1

## Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Connectable conductor materials (note)	<p><b>Terminating Aluminum Conductors</b></p> <p>WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm<sup>2</sup>/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 is used for termination.</p>

### "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.

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



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 mm<sup>2</sup> = 16 A

4 mm<sup>2</sup> = 22 A

Solid conductor	0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches
Wiring direction	Front-entry wiring, angled

### Physical data

Width	6 mm / 0.236 inches
Height	61.5 mm / 2.421 inches
Depth from upper-edge of DIN-rail	37 mm / 1.457 inches

### Mechanical Data

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

### Material Data

Note (material data)	Information on material specifications can be found <a href="#">here</a>
Color	blue
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.185 MJ
Weight	10.2 g

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

## 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	27-14-11-20
eCl@ss 9.0	27-14-11-20
ETIM 8.0	EC000897
ETIM 7.0	EC000897
PU (SPU)	100 pcs
Packaging type	box
Country of origin	PL
GTIN	4044918323901
Customs tariff number	85369010000

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates

### General approvals





Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 60947	NTR NL-7454/A1
	CSA DEKRA Certification B.V.	C22.2 No. 158	1505034
	KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288
	UL Underwriters Laboratories Inc.	UL 1059	E45172

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

## Declarations of conformity and manufacturer's declarations



Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	20- HG1941090- PDA
	BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	LR Lloyds Register	EN 60947	91/20112 (E9)

## Required accessories

## End plate

End plate		
	Item no.: 281-313 End and intermediate plate; 2.5 mm thick; orange	<a href="http://www.wago.com/281-313">www.wago.com/281-313</a>
	Item no.: 281-312 End and intermediate plate; 2.5 mm thick; gray	<a href="http://www.wago.com/281-312">www.wago.com/281-312</a>

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

## Optional accessories


### Carrier rail

#### Mounting accessories

	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-112</b> 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	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> 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	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>

### Tool

#### Operating tool

	<b>Item no.: 210-657</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
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Subject to changes. Please also observe the further product documentation!



**Item no.: 210-658**

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

[www.wago.com/210-658](http://www.wago.com/210-658)



**Item no.: 210-720**

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

[www.wago.com/210-720](http://www.wago.com/210-720)

## Mounting

### Cover carrier



**Item no.: 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

[www.wago.com/709-167](http://www.wago.com/709-167)

### Cover



**Item no.: 709-153**

Cover; Type 1; suitable for cover carrier, type 1; 1 m long; transparent

[www.wago.com/709-153](http://www.wago.com/709-153)

### Mounting accessories



**Item no.: 209-106**

Mounting carrier; for isolated mounting on DIN 35 rails; gray

[www.wago.com/209-106](http://www.wago.com/209-106)



**Item no.: 249-116**

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

[www.wago.com/249-116](http://www.wago.com/249-116)

## Testing and measuring

### Testing accessories



**Item no.: 209-170**

Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm<sup>2</sup> - 10 mm<sup>2</sup> tbs; gray

[www.wago.com/209-170](http://www.wago.com/209-170)



**Item no.: 281-407**

Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm<sup>2</sup> - 2.5 mm<sup>2</sup>; 2,50 mm<sup>2</sup>; gray

[www.wago.com/281-407](http://www.wago.com/281-407)



**Item no.: 281-418**

Test plug module; modular; suitable for all WAGO 281, 776, 777 and 781 series rail-mounted terminal blocks with jumper slots in the current bar; gray

[www.wago.com/281-418](http://www.wago.com/281-418)



**Item no.: 281-419**

Spacer module; modular; bridging commoned terminal blocks; gray

[www.wago.com/281-419](http://www.wago.com/281-419)



**Item no.: 249-145**

L-type end module; modular; with rigid contact pin; End module; 2,50 mm<sup>2</sup>; gray

[www.wago.com/249-145](http://www.wago.com/249-145)



**Item no.: 249-146**

L-type spacer module; modular; e.g., bridging commoned terminal blocks; gray

[www.wago.com/249-146](http://www.wago.com/249-146)



**Item no.: 249-147**

B-type test plug module; modular; 2,50 mm<sup>2</sup>; gray

[www.wago.com/249-147](http://www.wago.com/249-147)

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

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Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.

	<b>Item no.: 249-148</b> B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray	<a href="http://www.wago.com/249-148">www.wago.com/249-148</a>
	<b>Item no.: 249-144</b> L-type test plug module; modular; with spring-loaded contact pin; Center module; 2,50 mm <sup>2</sup> ; gray	<a href="http://www.wago.com/249-144">www.wago.com/249-144</a>
	<b>Item no.: 280-404</b> Test plug adapter; 5 mm wide; for test plug (2.3 mm Ø); suitable for 1.5 mm <sup>2</sup> - 4 mm <sup>2</sup> tbs; gray	<a href="http://www.wago.com/280-404">www.wago.com/280-404</a>
<b>Push-in type wire jumper</b>		
Jumper		
	<b>Item no.: 249-123</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 180 mm long; black	<a href="http://www.wago.com/249-123">www.wago.com/249-123</a>
	<b>Item no.: 249-126</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 110 mm long; black	<a href="http://www.wago.com/249-126">www.wago.com/249-126</a>
	<b>Item no.: 249-127</b> Push-in type wire jumper; 0.75 mm <sup>2</sup> ; insulated; 250 mm long; black	<a href="http://www.wago.com/249-127">www.wago.com/249-127</a>
	<b>Item no.: 249-125</b> Push-in type wire jumper; insulated; 60 mm long; black	<a href="http://www.wago.com/249-125">www.wago.com/249-125</a>
<b>Marking accessories</b>		
Marker		
	<b>Item no.: 2009-115/000-002</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	<a href="http://www.wago.com/2009-115/000-002">www.wago.com/2009-115/000-002</a>
	<b>Item no.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	<a href="http://www.wago.com/2009-115/000-007">www.wago.com/2009-115/000-007</a>
	<b>Item no.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	<a href="http://www.wago.com/2009-115/000-017">www.wago.com/2009-115/000-017</a>
	<b>Item no.: 2009-115/000-023</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	<a href="http://www.wago.com/2009-115/000-023">www.wago.com/2009-115/000-023</a>
	<b>Item no.: 2009-115/000-024</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	<a href="http://www.wago.com/2009-115/000-024">www.wago.com/2009-115/000-024</a>
	<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-115">www.wago.com/2009-115</a>

**Item no.: 793-5501/000-007**

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





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](http://www.wago.com/793-5501/000-007)



**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 [www.wago.com/793-5501/000-012](http://www.wago.com/793-5501/000-012)



**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; light green [www.wago.com/793-5501/000-017](http://www.wago.com/793-5501/000-017)



**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 [www.wago.com/793-5501/000-023](http://www.wago.com/793-5501/000-023)



**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 [www.wago.com/793-5501/000-024](http://www.wago.com/793-5501/000-024)



**Item no.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow [www.wago.com/793-501/000-002](http://www.wago.com/793-501/000-002)



**Item no.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray [www.wago.com/793-501/000-007](http://www.wago.com/793-501/000-007)



**Item no.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green [www.wago.com/793-501/000-017](http://www.wago.com/793-501/000-017)



**Item no.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange [www.wago.com/793-501/000-012](http://www.wago.com/793-501/000-012)



**Item no.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green [www.wago.com/793-501/000-023](http://www.wago.com/793-501/000-023)

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



**Item no.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue

[www.wago.com/793-501/000-006](http://www.wago.com/793-501/000-006)



**Item no.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red

[www.wago.com/793-501/000-005](http://www.wago.com/793-501/000-005)



**Item no.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/793-501](http://www.wago.com/793-501)



**Item no.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet

[www.wago.com/793-501/000-024](http://www.wago.com/793-501/000-024)



**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

[www.wago.com/793-5501/000-005](http://www.wago.com/793-5501/000-005)



**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

[www.wago.com/793-5501/000-002](http://www.wago.com/793-5501/000-002)



**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

[www.wago.com/793-5501/000-006](http://www.wago.com/793-5501/000-006)



**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

[www.wago.com/793-5501](http://www.wago.com/793-5501)



**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

[www.wago.com/2009-115/000-012](http://www.wago.com/2009-115/000-012)



**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

[www.wago.com/2009-115/000-006](http://www.wago.com/2009-115/000-006)

Group marker carrier



**Item no.: 209-142**  
Group marker carrier; gray

[www.wago.com/209-142](http://www.wago.com/209-142)



**Item no.: 209-141**  
Group marker carrier; gray

[www.wago.com/209-141](http://www.wago.com/209-141)



**Item no.: 209-140**

[www.wago.com/209-140](http://www.wago.com/209-140)

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

Group marker carrier; gray



**Item no.: 249-105**  
Group marker carrier; gray

[www.wago.com/249-105](http://www.wago.com/249-105)

**Protective warning marker**

Cover



**Item no.: 281-415**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

[www.wago.com/281-415](http://www.wago.com/281-415)

**Jumpers**

Jumper



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

[www.wago.com/210-123](http://www.wago.com/210-123)



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

[www.wago.com/210-103](http://www.wago.com/210-103)



**Item no.: 281-402**  
Jumper; insulated; gray

[www.wago.com/281-402](http://www.wago.com/281-402)



**Item no.: 281-409**  
Jumper; insulated; gray

[www.wago.com/281-409](http://www.wago.com/281-409)



**Item no.: 281-422**  
Jumper; insulated; yellow-green

[www.wago.com/281-422](http://www.wago.com/281-422)



**Item no.: 281-485**  
Jumper; 5-way; insulated; gray

[www.wago.com/281-485](http://www.wago.com/281-485)



**Item no.: 281-490**  
Jumper; 10-way; insulated; gray

[www.wago.com/281-490](http://www.wago.com/281-490)



**Item no.: 281-492**  
Jumper; 2-way; insulated; gray

[www.wago.com/281-492](http://www.wago.com/281-492)



**Item no.: 281-482**  
Jumper; 2-way; insulated; gray

[www.wago.com/281-482](http://www.wago.com/281-482)



**Item no.: 281-483**  
Jumper; 3-way; insulated; gray

[www.wago.com/281-483](http://www.wago.com/281-483)



**Item no.: 709-110**  
Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

[www.wago.com/709-110](http://www.wago.com/709-110)



**Item no.: 709-112**  
Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

[www.wago.com/709-112](http://www.wago.com/709-112)

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



Item no.: 709-111

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black[www.wago.com/709-111](http://www.wago.com/709-111)

Item no.: 781-453

Staggered jumper; from 1 to 3; insulated; gray

[www.wago.com/781-453](http://www.wago.com/781-453)

Item no.: 781-452

Staggered jumper; from 1 to 2; insulated; gray

[www.wago.com/781-452](http://www.wago.com/781-452)

Item no.: 781-455

Staggered jumper; from 1 to 5; insulated; gray

[www.wago.com/781-455](http://www.wago.com/781-455)

Item no.: 781-454

Staggered jumper; from 1 to 4; insulated; gray

[www.wago.com/781-454](http://www.wago.com/781-454)

Item no.: 781-456

Staggered jumper; from 1 to 6; insulated; gray

[www.wago.com/781-456](http://www.wago.com/781-456)

## Ferrule

### Ferrule



Item no.: 216-106

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored[www.wago.com/216-106](http://www.wago.com/216-106)

Item no.: 216-203

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red[www.wago.com/216-203](http://www.wago.com/216-203)

Item no.: 216-206

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; blue[www.wago.com/216-206](http://www.wago.com/216-206)

Item no.: 216-202

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray[www.wago.com/216-202](http://www.wago.com/216-202)

Item no.: 216-204

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black[www.wago.com/216-204](http://www.wago.com/216-204)

Item no.: 216-205

Ferrule; Sleeve for 2.08 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; yellow[www.wago.com/216-205](http://www.wago.com/216-205)

Item no.: 216-201

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white[www.wago.com/216-201](http://www.wago.com/216-201)

Item no.: 216-241

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white[www.wago.com/216-241](http://www.wago.com/216-241)

Item no.: 216-242

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray[www.wago.com/216-242](http://www.wago.com/216-242)

Item no.: 216-243

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red[www.wago.com/216-243](http://www.wago.com/216-243)

Item no.: 216-244

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight[www.wago.com/216-244](http://www.wago.com/216-244)

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

WAGO GmbH &amp; Co. KG

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32423 Minden




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Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

Do you have any questions about our products?




We are always happy to take your call at +49 (571) 887-44222.

crimped; acc. to DIN 46228, Part 4/09.90; black

	<b>Item no.: 216-246</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	<a href="http://www.wago.com/216-246">www.wago.com/216-246</a>
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>

### Insulation stop

Insulation stop

	<b>Item no.: 281-470</b> Insulation stop; 0.08 - 0.2 mm <sup>2</sup> "s" (0.14 mm <sup>2</sup> "f-st"); 5 pieces/strip; white	<a href="http://www.wago.com/281-470">www.wago.com/281-470</a>
	<b>Item no.: 281-471</b> Insulation stop; 0.25 - 0.5 mm <sup>2</sup> ; 5 pieces/strip; light gray	<a href="http://www.wago.com/281-471">www.wago.com/281-471</a>
	<b>Item no.: 281-472</b> Insulation stop; 0.75 - 1.5 mm <sup>2</sup> ; 5 pieces/strip; dark gray	<a href="http://www.wago.com/281-472">www.wago.com/281-472</a>

### Downloads

#### Documentation

##### Bid Text

281-651 X81 - Datei	2019 Feb 19	xml 3.3 kB	Download
281-651 doc - Datei	2017 Feb 28	doc 24.6 kB	Download

##### Additional Information

Technical Section Technical explanations	pdf 2.2 MB	Download
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### CAD/CAE-Data

#### CAD data

2D/3D Models 281-651	URL	Download
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#### CAE data

FPI AN Data Portal 281-651

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

<a href="#">ZUKEN Portal 281-651</a>	<a href="#">URL</a>	<a href="#">Download</a>
<a href="#">ZUKEN Portal 281-651</a>	<a href="#">URL</a>	<a href="#">Download</a>
<a href="#">WSCAD Universe 281-651</a>	<a href="#">URL</a>	<a href="#">Download</a>

## Environmental Product Compliance

### Compliance Search

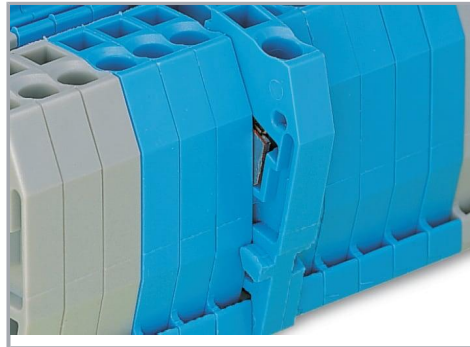
<a href="#">Environmental Product Compliance 281-651</a>	<a href="#">URL</a>	<a href="#">Download</a>
3-conductor through terminal block; 4 mm <sup>2</sup> ; suitable for Ex i applications; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®; 4,00 mm <sup>2</sup> ; blue		

## Installation Notes

### Installation



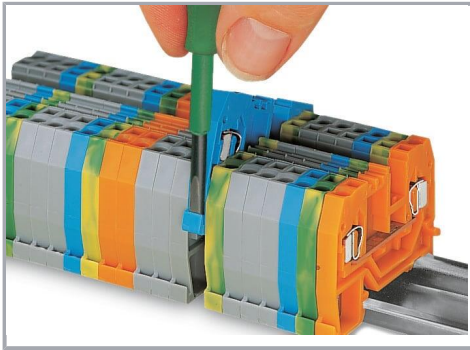
Snapping a terminal block onto the DIN-rail.



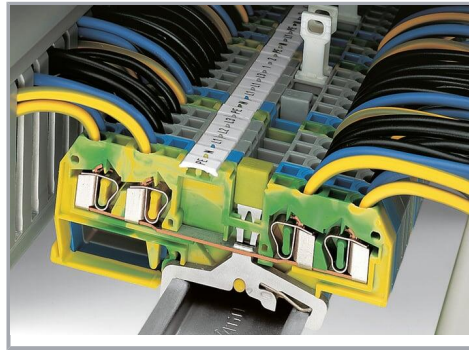
Quick assembly keys prevent reverse mounting.

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



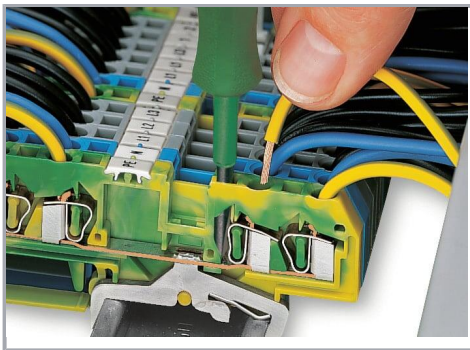


Removing a terminal block from the assembly.



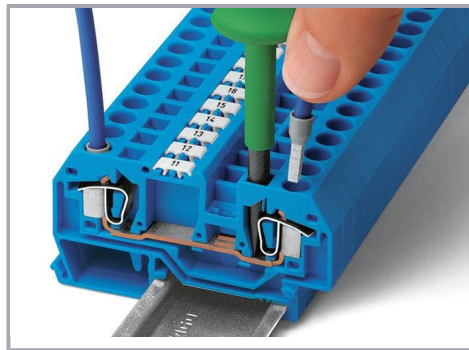
Steel DIN-rails are not suited for PEN (ground and N-conductor) applications per EN 60947-7-2 (VDE 0611, Part 3).

### Conductor termination



**CAGE CLAMP® connection**

Inserting a conductor.

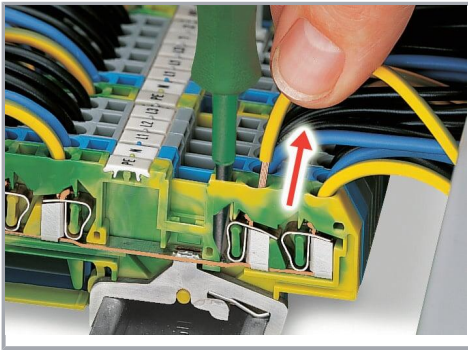


**CAGE CLAMP® connection**

Inserting a conductor.

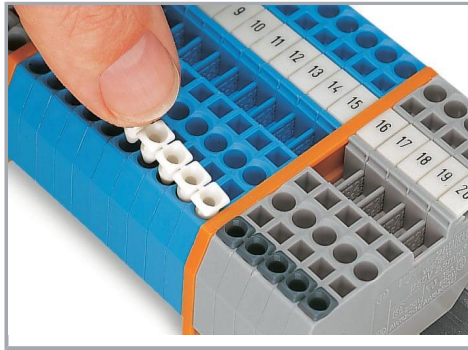
With ferruled conductors, it is necessary to use a terminal block one size larger than the conductor's nominal cross-section.

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



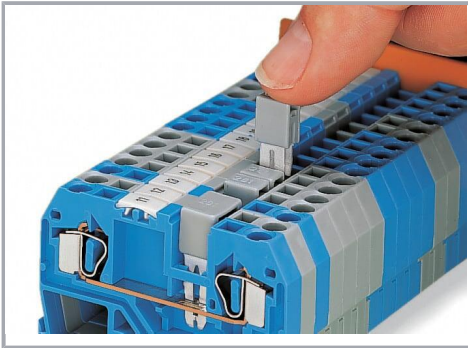
**CAGE CLAMP® connection**

Removing a solid conductor.



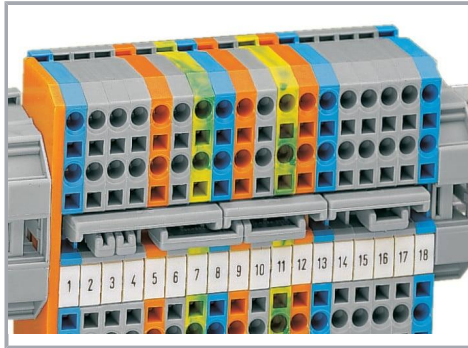
Inserting insulation stops.

### Commoning



Commoning using an adjacent jumper.

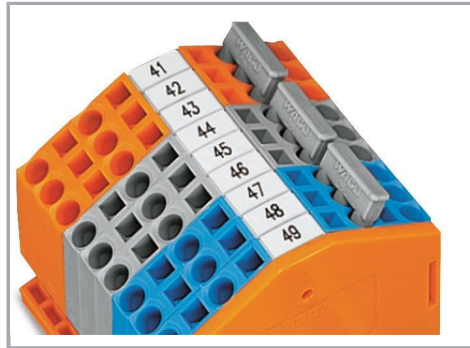
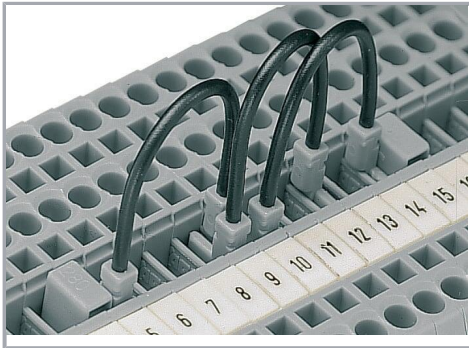
Push jumper down until fully inserted!



Staggered jumpers are suitable for sophisticated circuit requirements. Push jumpers down until fully inserted!

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





### Push-In Type Wire Jumpers

When installing machines or control systems, it is often necessary to make an additional connection between two terminal blocks that are not next to each other on the rail. In such cases, WAGO's touch-proof, push-in type wire jumpers are the ideal solution.

These jumpers are compatible with the following rail-mount terminal blocks:

- 279 Series (1.5 mm<sup>2</sup>/16 AWG),
- 280/775/780 Series (2.5 mm<sup>2</sup>/14 AWG)
- 281/769/776/777/781 and 880 Series (4 mm<sup>2</sup> /12 AWG)

They are available in three conductor lengths (60, 110 and 250 mm), allowing up to 60 terminal blocks to be commoned depending on their width (see table on the right).

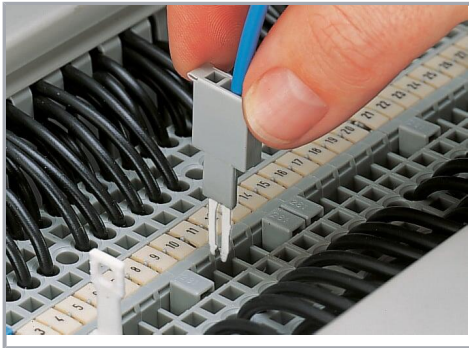
The 280/775/780 and 281/776/777/781 Series Terminal Blocks accept two wire jumpers, allowing the use of commoning chains. Furthermore, the 280/769/775/780 /880 and 281/776/777/781 Series allow both wire jumper and adjacent jumper to be simultaneously plugged into a same terminal block.

### Testing

4-conductor through terminal blocks, angled type,

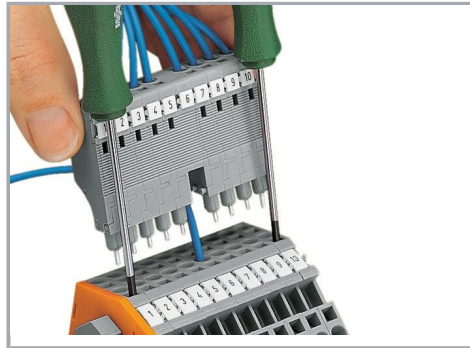
formation of groups with 3-way, comb-style jumper bars

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

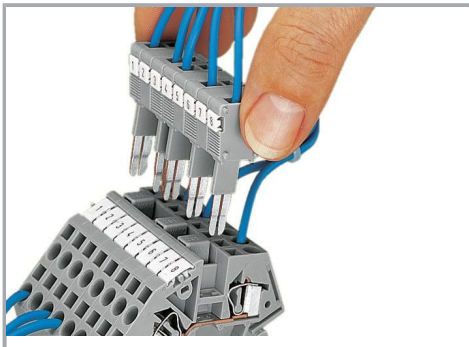


Testing with a test plug.

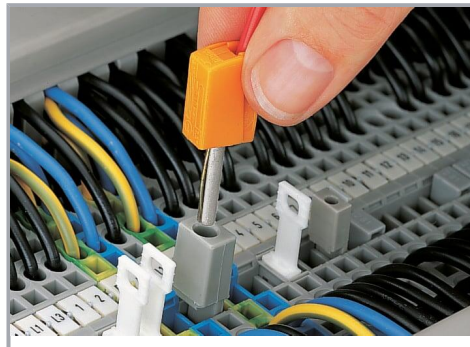
Picture shows a test plug fitted with CAGE CLAMP®.



L-type test plug modules fitted with CAGE CLAMP®



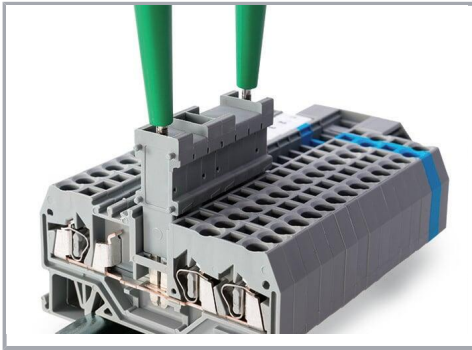
B-type test plug modules fitted with CAGE CLAMP®



Testing with a test plug.

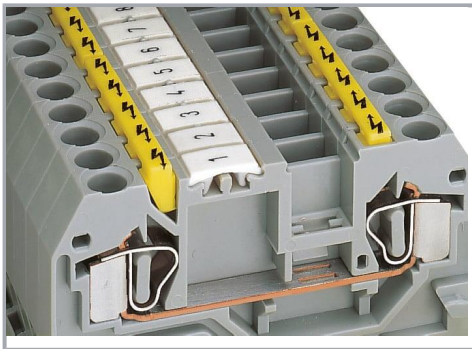
Picture shows a test plug adapter (209-170).

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



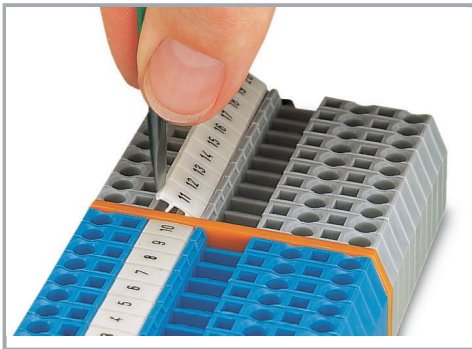
Test plugs modules are directly plugged into the jumper contact slot of the current bar.

#### Cover



Protective warning markers inserted into the operating slots

#### Marking



Labeling via WMB Multi Marking System.

#### Product family

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



**Classic**

EPSITRON® CLASSIC POWER: The Robust Power Supply – with Integrated TopBoost (Optional)

[Show all products from the family](#)

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

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