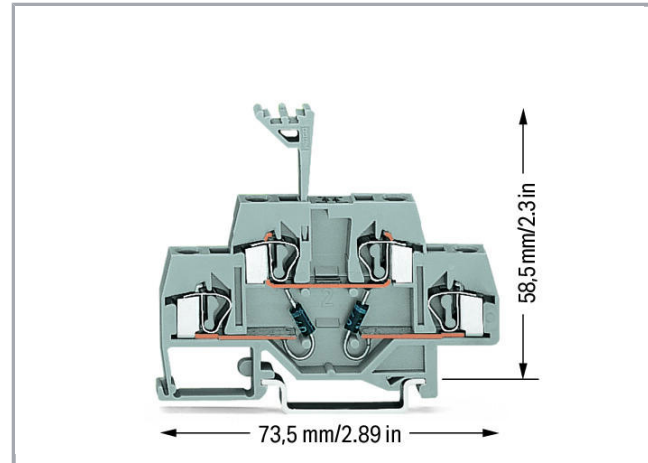
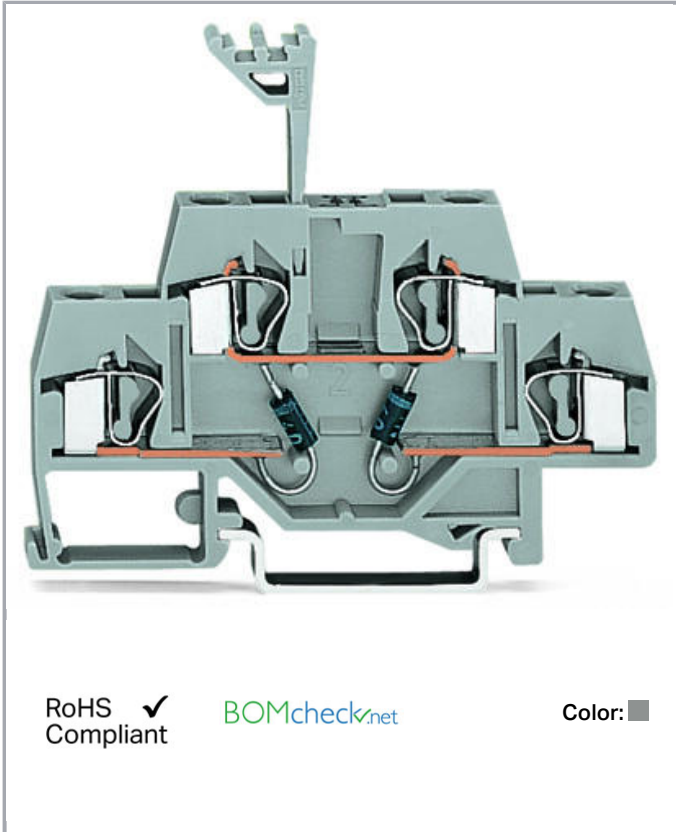


**Data sheet | Item number: 281-635/281-489**

Component terminal block; double-deck; with 2 diodes 1N4007; Bottom anode; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm<sup>2</sup>; CAGE CLAMP®; 4,00 mm<sup>2</sup>; gray



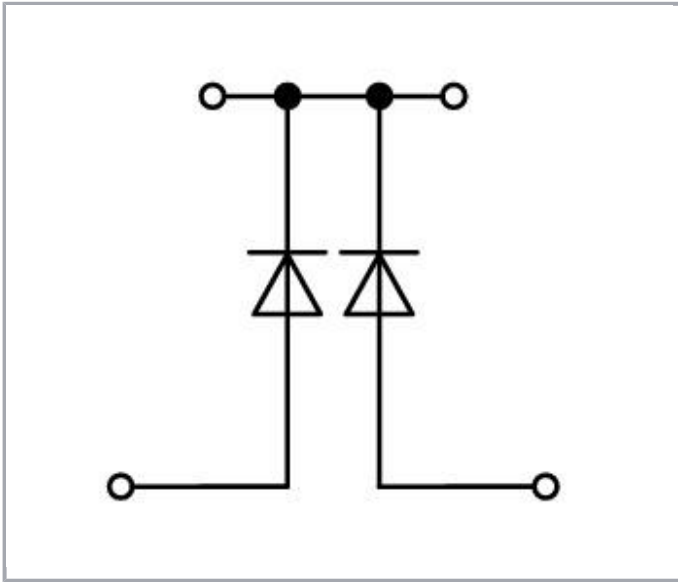
[www.wago.com/281-635/281-489](http://www.wago.com/281-635/281-489)



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

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## Item description

### Note:

#### Terminating Aluminum Conductors

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 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 mm<sup>2</sup> (14 AWG) = 16 A

4 mm<sup>2</sup> (12 AWG) = 22 A

## Data

### Electrical data

Nominal voltage	250 V
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Subject to changes. Please also observe the further product documentation!

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Reverse voltage	1,000 V
-----------------	---------

### Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60947-7-1
Rated current	0.5 A

### Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
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 inch
Total number of connection points	4
Total number of potentials	2
Number of levels	2
Type of wiring	Front-entry wiring

### Geometrical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-35 rail	58.5 mm / 2.303 inch
Depth	73.5 mm / 2.894 inch

### Mechanical data

Design	horizontal
Type of mounting	DIN-35 rail
Marking level	Center marking

### Material Data

Color	gray
Insulating material	Polyamide 66 (PA 66)
Fire load	0.246 MJ
Weight	14.2 g



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

## Commercial data



Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4045454197308
Customs Tariff No.	85369010000

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947,IEC 60947	NTR NL-7454/A1
	KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288

### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	20-HG1941090-PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

## Counterpart

## Compatible products

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

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### Protective Warning Marker

<b>Item no.: 281-415</b> Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks; yellow	<a href="http://www.wago.com/281-415">www.wago.com/281-415</a>
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### assembling

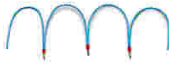
<b>Item no.: 209-106</b> Mounting carrier; for isolated mounting on DIN 35 rails; gray	<a href="http://www.wago.com/209-106">www.wago.com/209-106</a>
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<b>Item no.: 709-154</b> Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent	<a href="http://www.wago.com/709-154">www.wago.com/709-154</a>
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### Jumper

<b>Item no.: 210-103</b> Wire commoning chain; insulated; 50 connections; black	<a href="http://www.wago.com/210-103">www.wago.com/210-103</a>
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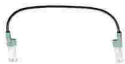


<b>Item no.: 210-123</b> Wire commoning chain; insulated; 50 connections	<a href="http://www.wago.com/210-123">www.wago.com/210-123</a>
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<b>Item no.: 249-123</b> Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm <sup>2</sup>	<a href="http://www.wago.com/249-123">www.wago.com/249-123</a>
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<b>Item no.: 249-125</b> Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm <sup>2</sup>	<a href="http://www.wago.com/249-125">www.wago.com/249-125</a>
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<b>Item no.: 249-126</b> Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm <sup>2</sup>	<a href="http://www.wago.com/249-126">www.wago.com/249-126</a>
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<b>Item no.: 249-127</b> Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm <sup>2</sup>	<a href="http://www.wago.com/249-127">www.wago.com/249-127</a>
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<b>Item no.: 281-482</b> Comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray	<a href="http://www.wago.com/281-482">www.wago.com/281-482</a>
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<b>Item no.: 281-483</b> Comb-style jumper bar; insulated; 3-way; IN = IN terminal block; gray	<a href="http://www.wago.com/281-483">www.wago.com/281-483</a>
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<b>Item no.: 281-485</b> Comb-style jumper bar; insulated; 5-way; IN = IN terminal block; gray	<a href="http://www.wago.com/281-485">www.wago.com/281-485</a>
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<b>Item no.: 281-490</b> Comb-style jumper bar; insulated; 10-way; IN = IN terminal block; gray	<a href="http://www.wago.com/281-490">www.wago.com/281-490</a>
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<b>Item no.: 281-492</b> Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray	<a href="http://www.wago.com/281-492">www.wago.com/281-492</a>
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<b>Item no.: 709-110</b> Wire commoning chain; insulated; 4 connections; 3 x 110 mm; black	<a href="http://www.wago.com/709-110">www.wago.com/709-110</a>
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Subject to changes. Please also observe the further product documentation!



**Item no.: 709-111**  
Wire commoning chain; insulated; 3 connections; 2 x 120 mm; black

[www.wago.com/709-111](http://www.wago.com/709-111)

**Item no.: 709-112**  
Wire commoning chain; insulated; 3 connections; 2 x 170 mm; black

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

**Marking accessories**



**Item no.: 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](http://www.wago.com/2009-115)

**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

[www.wago.com/2009-115/000-002](http://www.wago.com/2009-115/000-002)



**Item no.: 2009-115/000-006**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

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

**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

[www.wago.com/2009-115/000-007](http://www.wago.com/2009-115/000-007)



**Item no.: 2009-115/000-012**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

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

**Item no.: 2009-115/000-017**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

[www.wago.com/2009-115/000-017](http://www.wago.com/2009-115/000-017)

**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

[www.wago.com/2009-115/000-023](http://www.wago.com/2009-115/000-023)

**Item no.: 2009-115/000-024**  
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

[www.wago.com/2009-115/000-024](http://www.wago.com/2009-115/000-024)



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

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



**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.: 793-501/000-002**  
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.: 793-501/000-005**  
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)

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.: 793-501/000-007

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.: 793-501/000-012

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.: 793-501/000-017

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.: 793-501/000-023

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)



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

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.: 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.: 793-5501/000-005

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.: 793-5501/000-006

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.: 793-5501/000-007

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](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; green

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

Item no.: 793-5501/000-023

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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](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)

**tools**



**Item no.: 210-657**

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

[www.wago.com/210-657](http://www.wago.com/210-657)



**Item no.: 210-658**

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

[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

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

**End plate**



**Item no.: 209-192**

Separator for Ex e/Ex i applications; 3 mm thick; 125.5 mm wide; orange

[www.wago.com/209-192](http://www.wago.com/209-192)



**Item no.: 281-340**

End and intermediate plate; 2.5 mm thick; gray

[www.wago.com/281-340](http://www.wago.com/281-340)



**Item no.: 281-341**

End and intermediate plate; 2.5 mm thick; orange

[www.wago.com/281-341](http://www.wago.com/281-341)

**Carrier rail**

**Item no.: 210-112**

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm

[www.wago.com/210-112](http://www.wago.com/210-112)

**Item no.: 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](http://www.wago.com/210-113)

**Item no.: 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](http://www.wago.com/210-114)

**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

[www.wago.com/210-115](http://www.wago.com/210-115)



**Item no.: 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](http://www.wago.com/210-118)



**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

[www.wago.com/210-196](http://www.wago.com/210-196)



**Item no.: 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](http://www.wago.com/210-197)

**Item no.: 210-198**

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

[www.wago.com/210-198](http://www.wago.com/210-198)

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

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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

[www.wago.com/210-504](http://www.wago.com/210-504)**Item no.: 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](http://www.wago.com/210-505)**Item no.: 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](http://www.wago.com/210-506)**Item no.: 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](http://www.wago.com/210-508)**ferrule****Item no.: 216-106**Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated[www.wago.com/216-106](http://www.wago.com/216-106)**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.: 216-202**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.: 216-203**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.: 216-204**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.: 216-206**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.: 216-241**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 crimped; acc. to DIN 46228, Part 4/09.90; black[www.wago.com/216-244](http://www.wago.com/216-244)**Item no.: 216-246**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[www.wago.com/216-246](http://www.wago.com/216-246)

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

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	<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; green	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
<b>Insulation stop</b>		
	<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

#### Additional Information

Technical explanations	Apr 3, 2019	pdf 2.1 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 281-635/281-489	URL	Download
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### CAE data

EPLAN Data Portal 281-635/281-489	URL	Download
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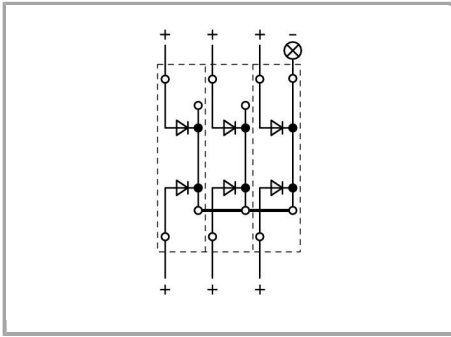
WSCAD Universe 281-635/281-489	URL	Download
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## Installation Notes

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

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



Collective fault signals can be created using the following terminal blocks:

281-635/281-489 or 281-635/281-490

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