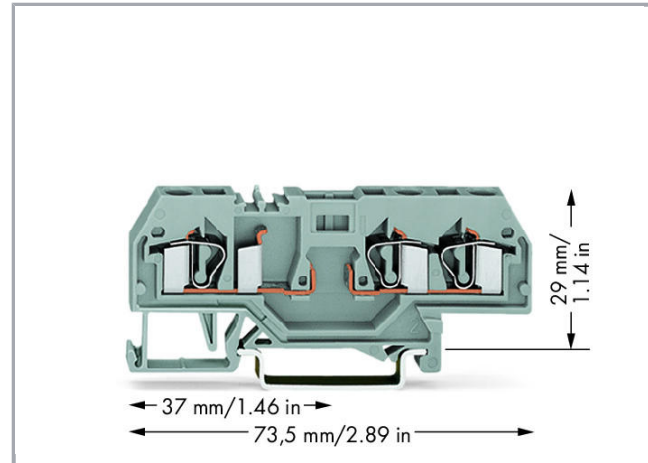
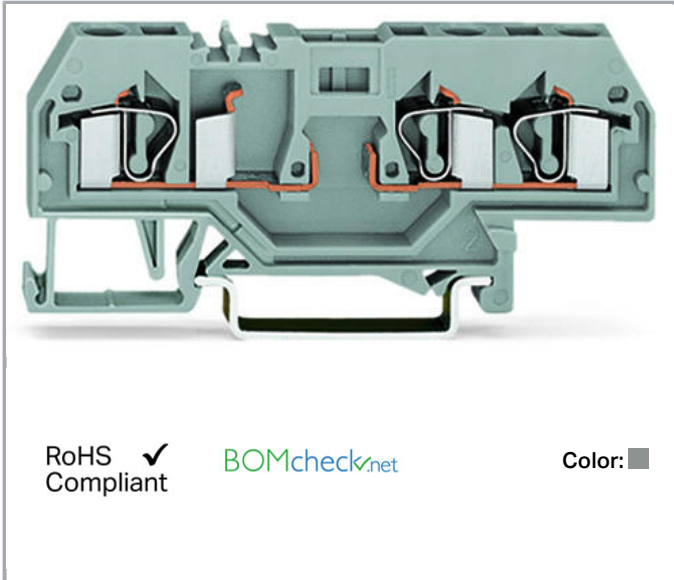


## Data sheet | Item number: 281-610

3-conductor carrier terminal block; 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/281-610](http://www.wago.com/281-610)



### 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

Subject to changes.

WAGO Kontakttechnik GmbH & Co. KG  
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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.



## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

Rated voltage (III / 3)	400 V
Rated impulse voltage (III / 3)	6 kV
Rated current	10 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

### Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Solid conductor	0.08 ... 4 mm <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	3
Total number of potentials	2
Number of levels	1
Type of wiring	Front-entry wiring

### Geometrical Data

Width	6 mm / 0.236 inch
Height from upper-edge of DIN-35 rail	29 mm / 1.142 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)

Subject to changes.




Fire load	0.179 MJ
Weight	11.1 g

### Commercial data




Product Group	1 (Rail Mounted Terminal Blocks)
Packaging type	BOX
Country of origin	DE
GTIN	4044918631990
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
	CSA DEKRA Certification B.V.	C22.2 No. 158	1505034
	KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-107288

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	14-HG1293677-PDA
	BV Bureau Veritas S.A.	EN 60947	07436/E0 BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2

Subject to changes.




LR  
Lloyds Register

EN 60947




91/20112  
(E9)

### UL-Approvals




Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	20170731- E45172

### Compatible products

#### 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>















#### Marking accessories

	<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-115">www.wago.com/2009-115</a>
	<b>Item no.: 2009-115/000-002</b> WMB-Inline; for Smart Printer; on reel; 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.: 2009-115/000-006</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; blue	<a href="http://www.wago.com/2009-115/000-006">www.wago.com/2009-115/000-006</a>

Subject to changes.

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	<b>Item no.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; on reel; 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.: 2009-115/000-012</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; orange	<a href="http://www.wago.com/2009-115/000-012">www.wago.com/2009-115/000-012</a>
	<b>Item no.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; on reel; 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; on reel; 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; on reel; 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.: 249-105</b> Group marker carrier	<a href="http://www.wago.com/249-105">www.wago.com/249-105</a>
	<b>Item no.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/793-501">www.wago.com/793-501</a>
	<b>Item no.: 793-501/000-002</b> WMB marking card; as card; not stretchable; plain; snap-on type; yellow	<a href="http://www.wago.com/793-501/000-002">www.wago.com/793-501/000-002</a>
	<b>Item no.: 793-501/000-005</b> WMB marking card; as card; not stretchable; plain; snap-on type; red	<a href="http://www.wago.com/793-501/000-005">www.wago.com/793-501/000-005</a>
	<b>Item no.: 793-501/000-006</b> WMB marking card; as card; not stretchable; plain; snap-on type; blue	<a href="http://www.wago.com/793-501/000-006">www.wago.com/793-501/000-006</a>
	<b>Item no.: 793-501/000-007</b> WMB marking card; as card; not stretchable; plain; snap-on type; gray	<a href="http://www.wago.com/793-501/000-007">www.wago.com/793-501/000-007</a>
	<b>Item no.: 793-501/000-012</b> WMB marking card; as card; not stretchable; plain; snap-on type; orange	<a href="http://www.wago.com/793-501/000-012">www.wago.com/793-501/000-012</a>
	<b>Item no.: 793-501/000-017</b> WMB marking card; as card; not stretchable; plain; snap-on type; light green	<a href="http://www.wago.com/793-501/000-017">www.wago.com/793-501/000-017</a>
	<b>Item no.: 793-501/000-023</b> WMB marking card; as card; not stretchable; plain; snap-on type; green	<a href="http://www.wago.com/793-501/000-023">www.wago.com/793-501/000-023</a>

Subject to changes.



**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; 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; 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; 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; 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; 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; 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; 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)

#### End plate



**Item no.: 281-324**  
End and intermediate plate; 2.5 mm thick; gray

[www.wago.com/281-324](http://www.wago.com/281-324)



**Item no.: 281-326**  
End and intermediate plate; 2.5 mm thick; orange

[www.wago.com/281-326](http://www.wago.com/281-326)

#### 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)

Subject to changes.

	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
	<b>Item no.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
	<b>Item no.: 216-205</b> Ferrule; Sleeve for 2.08 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-205">www.wago.com/216-205</a>
	<b>Item no.: 216-206</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated; blue	<a href="http://www.wago.com/216-206">www.wago.com/216-206</a>
	<b>Item no.: 216-241</b> 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	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Item no.: 216-242</b> 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	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Item no.: 216-243</b> 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	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Item no.: 216-244</b> 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	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<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; green	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
<b>plug</b>		
	<b>Item no.: 281-511</b> Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; without blown fuse indication; 6 mm wide; gray	<a href="http://www.wago.com/281-511">www.wago.com/281-511</a>
	<b>Item no.: 281-512</b> Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with port for LED; 6 mm wide; gray	<a href="http://www.wago.com/281-512">www.wago.com/281-512</a>
	<b>Item no.: 281-512/281-417</b> Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 230 V; 6 mm wide; gray	<a href="http://www.wago.com/281-512/281-417">www.wago.com/281-512/281-417</a>
	<b>Item no.: 281-512/281-418</b> Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with blown fuse indication by neon lamp; 120 V; 6 mm wide; gray	<a href="http://www.wago.com/281-512/281-418">www.wago.com/281-512/281-418</a>

Subject to changes.



**Item no.: 281-512/281-501**

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with LED indicator; 24 V AC/DC; 6 mm wide; gray

[www.wago.com/281-512/281-501](http://www.wago.com/281-512/281-501)

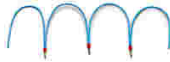
**Jumper**



**Item no.: 210-103**

Wire commoning chain; insulated; 50 connections; black

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



**Item no.: 210-123**

Wire commoning chain; insulated; 50 connections

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



**Item no.: 249-123**

Push-in type wire jumper; insulated; wire length 180 mm; Conductor cross section 0.75 mm<sup>2</sup>

[www.wago.com/249-123](http://www.wago.com/249-123)



**Item no.: 249-125**

Push-in type wire jumper; insulated; wire length 60 mm; Conductor cross section 0.75 mm<sup>2</sup>

[www.wago.com/249-125](http://www.wago.com/249-125)



**Item no.: 249-126**

Push-in type wire jumper; insulated; wire length 110 mm; Conductor cross section 0.75 mm<sup>2</sup>

[www.wago.com/249-126](http://www.wago.com/249-126)



**Item no.: 249-127**

Push-in type wire jumper; insulated; wire length 250 mm; Conductor cross section 0.75 mm<sup>2</sup>

[www.wago.com/249-127](http://www.wago.com/249-127)



**Item no.: 281-482**

Comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray

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



**Item no.: 281-483**

Comb-style jumper bar; insulated; 3-way; IN = IN terminal block; gray

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



**Item no.: 281-485**

Comb-style jumper bar; insulated; 5-way; IN = IN terminal block; gray

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



**Item no.: 281-490**

Comb-style jumper bar; insulated; 10-way; IN = IN terminal block; gray

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



**Item no.: 281-492**

Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block; gray

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



**Item no.: 709-110**

Wire commoning chain; insulated; 4 connections; 3 x 110 mm; black

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



**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)

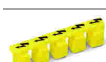


**Item no.: 709-112**

Wire commoning chain; insulated; 3 connections; 2 x 170 mm; black

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

**Protective Warning Marker**



**Item no.: 281-415**

Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks; yellow

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

**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)

Subject to changes.

	<b>Item no.: 210-658</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short	<a href="http://www.wago.com/210-658">www.wago.com/210-658</a>
	<b>Item no.: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
<b>Carrier rail</b>		
	<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	<a href="http://www.wago.com/210-112">www.wago.com/210-112</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	<a href="http://www.wago.com/210-113">www.wago.com/210-113</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	<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	<a href="http://www.wago.com/210-115">www.wago.com/210-115</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	<a href="http://www.wago.com/210-118">www.wago.com/210-118</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>
	<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	<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	<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	<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	<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	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
<b>assembling</b>		
	<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>

Subject to changes.



## Downloads

### Documentation

#### Bid Text

281-610 doc - Datei	May 2, 2017	doc 25.1 kB	Download
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281-610 X81 - Datei	Feb 19, 2019	xml 3.2 kB	Download
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#### Additional Information

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

### CAD data

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### CAE data

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## Installation Notes

Subject to changes.