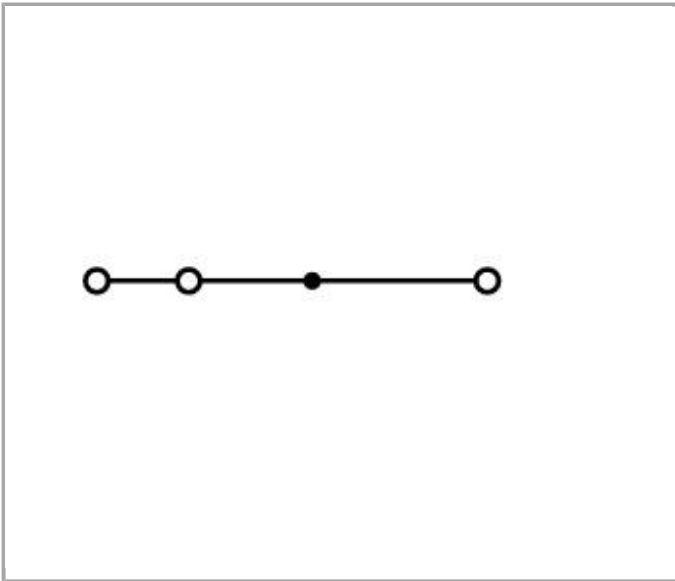
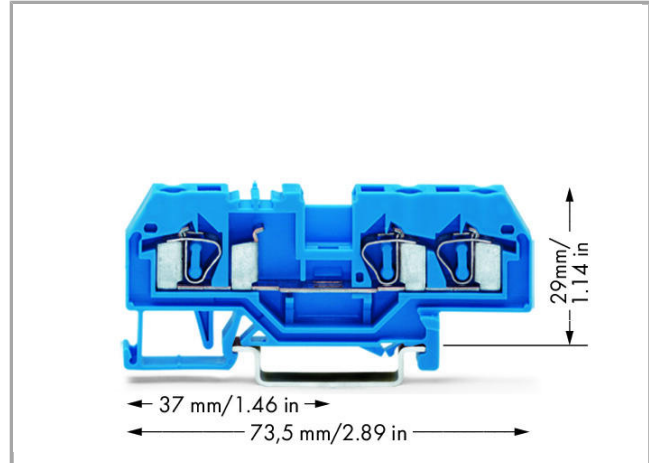
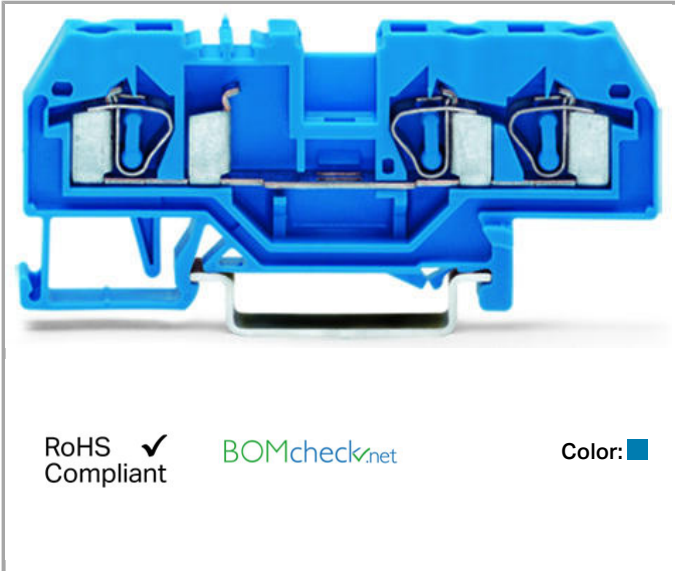


Data sheet | Item number: 281-684

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®



281-684



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

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

Rated voltage (III / 3)	800 V
Rated impulse voltage (III / 3)	8 kV
Rated current	32 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	3
Total number of potentials	1
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	blue
Insulating material	Polyamide 66 (PA 66)
Fire load	0.174 MJ
Weight	10.866 g

### Commercial data


Country of origin	DE
GTIN	4044918484930
Customs Tariff No.	85369010000




### Approvals / Certificates

#### Country specific Approvals


Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60947	NTR NL-7454/A1
	CCA DEKRA Certification B.V.	IEC 60947	NTR NL-7454/A1
	CSA DEKRA Certification B.V.	C22.2 No. 158	1505034
	CSA DEKRA Certification B.V.	UL 1059	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



	<b>BV</b> Bureau Veritas S.A.	EN 60947	07436/E0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	<b>LR</b> Lloyds Register	EN 60947	91/20112 (E9)

## UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> Underwriters Laboratories Inc.	UL 1059	20170731- E45172

## Compatible products

## End plate

	<b>Item no.: 209-191</b> Separator for Ex e/Ex i applications; 3 mm thick; 120 mm wide	209-191
	<b>Item no.: 209-192</b> Separator for Ex e/Ex i applications; 3 mm thick; 125.5 mm wide	209-192
	<b>Item no.: 281-324</b> End and intermediate plate; 2.5 mm thick	281-324
	<b>Item no.: 281-326</b> End and intermediate plate; 2.5 mm thick	281-326
	<b>Item no.: 281-344</b> Separator plate; 2 mm thick; oversized	281-344
	<b>Item no.: 281-346</b> Separator plate; 2 mm thick; oversized	281-346



**Item no.: 284-334**  
Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks

284-334



**Item no.: 284-344**  
Step-down cover plate; 1 mm thick; for 2-, 3- and 4-conductor terminal blocks

284-344

#### General accessories



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

249-105



**Item no.: 280-404**  
Test plug adapter; 5 mm wide; for test plug 210-137 (2.3 mm Ø); suitable for 1.5 mm<sup>2</sup> - 4 mm<sup>2</sup> tbs

280-404



**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>

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

281-418



**Item no.: 281-419**  
Spacer module; modular; bridging commoned terminal blocks

281-419

#### Insulation stop



**Item no.: 281-470**  
Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip

281-470



**Item no.: 281-471**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; 5 pieces/strip

281-471



**Item no.: 281-472**  
Insulation stop; 0.75 - 1.5 mm<sup>2</sup>; 5 pieces/strip

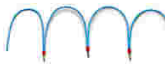
281-472

#### Jumper



**Item no.: 210-103**  
Wire commoning chain; insulated; 50 connections

210-103



**Item no.: 210-123**  
Wire commoning chain; insulated; 50 connections

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>

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>

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>

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>

249-127



**Item no.: 281-402**  
Adjacent jumper; insulated; IN = IN terminal block




















281-402


































**Item no.: 281-409**  
Alternate jumper; insulated; IN = IN terminal block

281-409


















**Item no.: 281-422**













	Adjacent jumper; insulated; IN = IN terminal block	281-422
	<b>Item no.: 281-482</b> Comb-style jumper bar; insulated; 2-way; IN = IN terminal block	281-482
	<b>Item no.: 281-483</b> Comb-style jumper bar; insulated; 3-way; IN = IN terminal block	281-483
	<b>Item no.: 281-485</b> Comb-style jumper bar; insulated; 5-way; IN = IN terminal block	281-485
	<b>Item no.: 281-490</b> Comb-style jumper bar; insulated; 10-way; IN = IN terminal block	281-490
	<b>Item no.: 281-492</b> Alternate comb-style jumper bar; insulated; 2-way; IN = IN terminal block	281-492
	<b>Item no.: 283-414</b> Step-down jumper; insulated; from 16 mm <sup>2</sup> to 4 mm <sup>2</sup> ; Nominal current 32 A	283-414
	<b>Item no.: 284-413</b> Step-down jumper; insulated; from 10/6 mm <sup>2</sup> to 6/4 mm <sup>2</sup> ; Nominal current 30 A	284-413
	<b>Item no.: 284-414</b> Step-down jumper; insulated; from 10/6 mm <sup>2</sup> to 4/2.5/1.5 mm <sup>2</sup> ; Nominal current 15 A	284-414
	<b>Item no.: 709-110</b> Wire commoning chain; insulated; 4 connections; 3 x 110 mm	709-110
	<b>Item no.: 709-111</b> Wire commoning chain; insulated; 3 connections; 2 x 120 mm	709-111
	<b>Item no.: 709-112</b> Wire commoning chain; insulated; 3 connections; 2 x 170 mm	709-112
	<b>Item no.: 781-452</b> Staggered jumper; insulated; from 1 to 2; Spacing: 6 mm	781-452
	<b>Item no.: 781-453</b> Staggered jumper; insulated; from 1 to 3; Spacing: 6 mm	781-453
	<b>Item no.: 781-454</b> Staggered jumper; insulated; from 1 to 4; Spacing: 6 mm	781-454
	<b>Item no.: 781-455</b> Staggered jumper; insulated; from 1 to 5; Spacing: 6 mm	781-455
	<b>Item no.: 781-456</b> Staggered jumper; insulated; from 1 to 6; Spacing: 6 mm	781-456
<b>Marking accessories</b>		
	<b>Item no.: 2009-115</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115
	<b>Item no.: 2009-115/000-002</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /000-002

	<b>Item no.: 2009-115/000-006</b> WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-006	2009-115
	<b>Item no.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	2009-115
	<b>Item no.: 2009-115/000-012</b> WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	2009-115
	<b>Item no.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-017	2009-115
	<b>Item no.: 2009-115/000-023</b> WMB-Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	2009-115
	<b>Item no.: 2009-115/000-024</b> WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	2009-115
	<b>Item no.: 209-140</b> Group marker carrier		209-140
	<b>Item no.: 209-141</b> Group marker carrier		209-141
	<b>Item no.: 209-142</b> Group marker carrier		209-142
	<b>Item no.: 209-185</b> Adaptor		209-185
	<b>Item no.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type		793-501
	<b>Item no.: 793-501/000-002</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-002	793-501
	<b>Item no.: 793-501/000-005</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-005	793-501
	<b>Item no.: 793-501/000-006</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-006	793-501
	<b>Item no.: 793-501/000-007</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-007	793-501
	<b>Item no.: 793-501/000-012</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-012	793-501

	<b>Item no.: 793-501/000-017</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-017	793-501
	<b>Item no.: 793-501/000-023</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-023	793-501
	<b>Item no.: 793-501/000-024</b> WMB marking card; as card; not stretchable; plain; snap-on type	/000-024	793-501
	<b>Item no.: 793-5501</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type		793-5501
	<b>Item no.: 793-5501/000-002</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type	/000-002	793-5501
	<b>Item no.: 793-5501/000-005</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-005	793-5501
	<b>Item no.: 793-5501/000-006</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-006	793-5501
	<b>Item no.: 793-5501/000-007</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-007	793-5501
	<b>Item no.: 793-5501/000-012</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-012	793-5501
	<b>Item no.: 793-5501/000-017</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-017	793-5501
	<b>Item no.: 793-5501/000-023</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-023	793-5501
	<b>Item no.: 793-5501/000-024</b> WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type	/000-024	793-5501
<b>check</b>			
	<b>Item no.: 209-170</b> 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		209-170
<b>Protective Warning Marker</b>			
	<b>Item no.: 281-415</b> Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks		281-415
<b>assembling</b>			
	<b>Item no.: 209-106</b> Mounting carrier; for isolated mounting on DIN 35 rails		209-106



	<b>Item no.: 709-153</b> Cover; Type 1; suitable for cover carrier, type 1; 1 m long	709-153
<b>ferrule</b>		
	<b>Item no.: 216-106</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated	216-106
	<b>Item no.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated	216-201
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated	216-202
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated	216-203
	<b>Item no.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated	216-204
	<b>Item no.: 216-205</b> Ferrule; Sleeve for 2.08 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated	216-205
	<b>Item no.: 216-206</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; insulated; electro-tin plated	216-206
	<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	216-241
	<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	216-242
	<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	216-243
	<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	216-244
	<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	216-246
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	216-301
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated	216-302
<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	210-112
	<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	210-113
	<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	210-114

	<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	210-115
	<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	210-118
	<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	210-196
	<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	210-197
	<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	210-198
	<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	210-504
	<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	210-505
	<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	210-506
	<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	210-508
<b>tools</b>		
	<b>Item no.: 210-657</b> Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short	210-657
	<b>Item no.: 210-658</b> Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short; angled	210-658
	<b>Item no.: 210-720</b> Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	210-720

## Downloads

### Documentation

#### Bid Text

281-684	doc 24.6 kB	Download
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## CAD/CAE - Smart Data

### CAD data

3D Download 281-684	URL	Download
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Subject to changes.

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