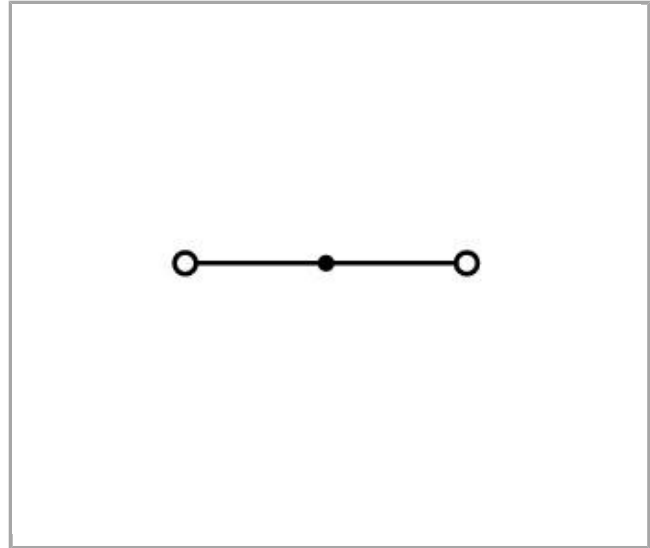
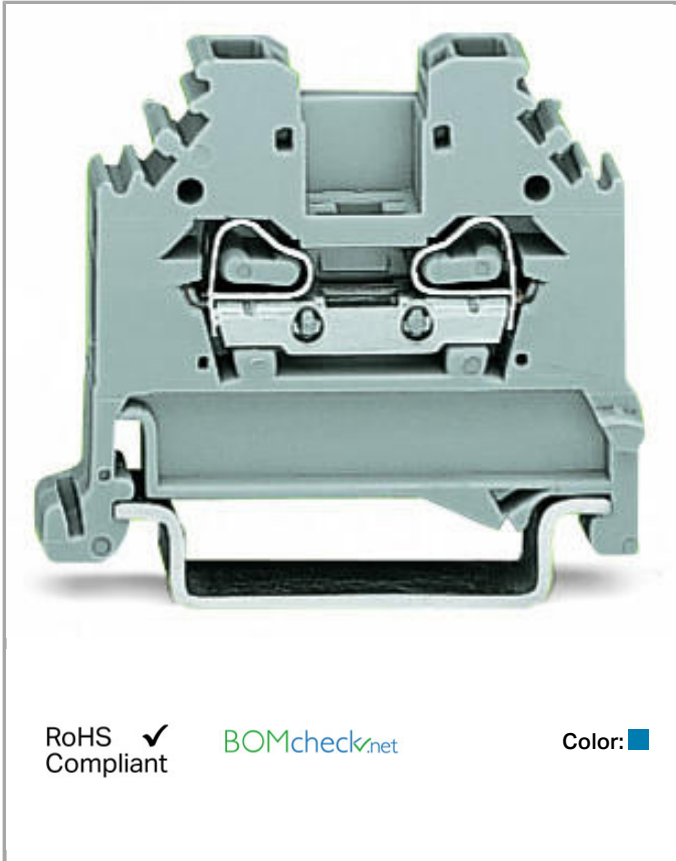


## Data sheet | Item number: 280-104

2-conductor through terminal block; 2.5 mm<sup>2</sup>; suitable for Ex i applications;  
lateral marker slots; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP®



280-104



### 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	24 A

### Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper Aluminum
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Note (conductor cross-section)	12 AWG: THHN, THWN
Total number of connection points	2
Total number of potentials	1
Number of levels	1
Type of wiring	Side-entry wiring

### Geometrical Data

Width	5 mm / 0.197 inch
Height from upper-edge of DIN-35 rail	30.5 mm / 1.201 inch
Depth	42.5 mm / 1.673 inch

### Mechanical data

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

### Material Data

Color	blue
Insulating material	Polyamide 66 (PA 66)



Fire load	0.08 MJ
Weight	3.9 g

### Commercial data




Country of origin	IN
GTIN	4045454044503
Customs Tariff No.	85369010000

### Approvals / Certificates

#### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CCA</b> DEKRA Certification B.V.	EN 60947	2157201.01
	<b>CSA</b> DEKRA Certification B.V.	C22.2	1536071

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	EN 60947	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> UL International Germany GmbH	UL 1059	E45172






## Compatible products






### General accessories

	<b>Item no.: 249-105</b> Group marker carrier	249-105
	<b>Item no.: 280-404</b> 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
	<b>Item no.: 281-407</b> Test plug; 6 mm wide; Nominal current 24 A; for 0.08 mm <sup>2</sup> - 2.5 mm <sup>2</sup>	281-407







### tools

	<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







### Carrier rail

	<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


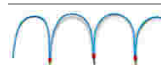
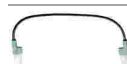
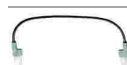






















	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	210-197
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	210-198
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 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

















**End plate**

















	<b>Item no.: 280-301</b> End and intermediate plate; 2.5 mm thick	280-301
	<b>Item no.: 280-302</b> End and intermediate plate; 2.5 mm thick	280-302
	<b>Item no.: 280-322</b> Separator plate; 2 mm thick; oversized	280-322
	<b>Item no.: 280-332</b> Separator plate; 2 mm thick; oversized	280-332
	<b>Item no.: 281-333</b> Step-down intermediate plate; 1 mm thick; "only for 4 mm terminal blocks	281-333
	<b>Item no.: 281-336</b> Step-down intermediate plate; 1 mm thick; "only for 4 mm terminal blocks	281-336








**Jumper**

	<b>Item no.: 210-103</b> Wire commoning chain; insulated; 50 connections	210-103
	<b>Item no.: 210-123</b> Wire commoning chain; insulated; 50 connections	210-123
	<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>	249-123
	<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>	249-125
	<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>	249-126
	<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>	249-127

	<b>Item no.: 280-402</b> Adjacent jumper; insulated; IN = IN terminal block	280-402
	<b>Item no.: 280-409</b> Alternate jumper; insulated; IN = IN terminal block	280-409
	<b>Item no.: 280-422</b> Adjacent jumper; insulated; IN = IN terminal block	280-422
	<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.: 780-452</b> Staggered jumper; insulated; from 1 to 2; Spacing: 5 mm; suitable for 2-conductor female plugs	780-452
	<b>Item no.: 780-453</b> Staggered jumper; insulated; from 1 to 3; Spacing: 5 mm; suitable for 2-conductor female plugs	780-453
	<b>Item no.: 780-454</b> Staggered jumper; insulated; from 1 to 4; Spacing: 5 mm; suitable for 2-conductor female plugs	780-454
	<b>Item no.: 780-455</b> Staggered jumper; insulated; from 1 to 5; Spacing: 5 mm; suitable for 2-conductor female plugs	780-455
	<b>Item no.: 780-456</b> Staggered jumper; insulated; from 1 to 6; Spacing: 5 mm; suitable for 2-conductor female plugs	780-456
	<b>Item no.: 780-457</b> Staggered jumper; insulated; from 1 to 7; Spacing: 5 mm; suitable for 2-conductor female plugs	780-457
	<b>Item no.: 780-458</b> Staggered jumper; insulated; from 1 to 8; Spacing: 5 mm; suitable for 2-conductor female plugs	780-458
<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>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 /UUU-UU2
	<b>Item no.: 2009-115/000-006</b> WMB-Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	2009-115 /UUU-UU6

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

	<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>ferrule</b>			
	<b>Item no.: 216-101</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated		216-101
	<b>Item no.: 216-102</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated		216-102
	<b>Item no.: 216-103</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated		216-103
	<b>Item no.: 216-104</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated		216-104
	<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.: 216-301</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>assembling</b>		
	<b>Item no.: 209-106</b> Mounting carrier; for isolated mounting on DIN 35 rails	209-106
	<b>Item no.: 210-148</b> Angled support bracket; without screw	210-148
	<b>Item no.: 709-153</b> Cover; Type 1; suitable for cover carrier, type 1; 1 m long	709-153
<b>Protective Warning Marker</b>		
	<b>Item no.: 280-405</b> Protective warning marker; with high-voltage symbol, black; for 5 terminal blocks	280-405

**Downloads**

**Documentation**

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**CAD/CAE - Smart Data**

**CAD data**

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Subject to changes.