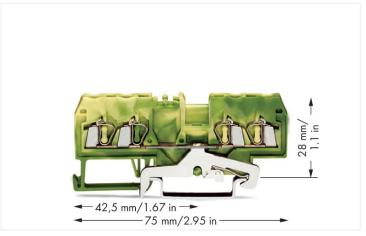
4-conductor ground terminal block; 2.5 mm²; center marking; for DIN-rail 35 x 15 and 35 x 7.5; CAGE CLAMP $^{\circ}$ ; 2,50 mm²; green-yellow

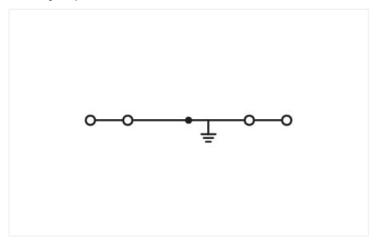


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Color: green-yellow



Similar to illustration

# Electrical data

Ratings per	IEC/EN 60947-7-2		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	-
Rated surge voltage	-	-	-
Rated current	-	-	-

# Connection data Connection points 4 Total number of potentials 1 Number of levels 1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool

Copper Aluminum

Connectable conductor materials

Page 1/10 Version 18.03.2024 Continued on next page

https://www.wago.com/280-837

# W/AGO

# Connection 1

Connectable conductor materials (note)

**Terminating Aluminum Conductors** 

WAGO spring clamp terminal blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO "Alu-Plus" Contact Paste 249-130 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> = 16 A 4 mm<sup>2</sup> = 22 A

Solid conductor 0.08 ... 2.5 mm² / 28 ... 12 AWG

Fine-stranded conductor 0.08 ... 2.5 mm² / 28 ... 12 AWG

Note (conductor cross-section) 12 AWG: THHN, THWN

Strip length 8 ... 9 mm / 0.31 ... 0.35 inches

Wiring direction Front-entry wiring

Physical dataWidth5 mm / 0.197 inchesHeight75 mm / 2.953 inchesDepth from upper-edge of DIN-rail28 mm / 1.102 inches

Mechanical dataDesignhorizontal typeMounting typeDIN-35 railMarking levelCenter marking

Material data	
Note (material data)	Information on material specifications can be found here
Color	green-yellow
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.128 MJ
Weight	12.9 g

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# **Environmental requirements**

Processing temperature  $-35 \dots +85 \, ^{\circ} \! C$  Continuous operating temperature  $-60 \dots +105 \, ^{\circ} \! C$ 

Commercial data	
Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-41
eCl@ss 9.0	27-14-11-41
ETIM 8.0	EC000901
ETIM 7.0	EC000901
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454100155
Customs tariff number	85369010000

Environmental Product Compliance	
CAS-No.	7439-92-1
REACH Candidate List Substance	Lead
RoHS Compliance Status	Compliant,No Exemption
SCIP notification number (Austria)	837e6bb5-453d-42a3-a091-2bce9e202f31
SCIP notification number (Belgium)	6dc24749-7db7-4a67-a90d-99df01cbd910
SCIP notification number (Bulgaria)	28446658-4e03-49f1-86c5-9044166b5ca2
SCIP notification number (Czech Republic)	a6fc81cb-c306-48ab-a3a2-61d856bc5450
SCIP notification number (Denmark)	af00d988-5ad8-43a2-a0bd-2f55bf005fe3
SCIP notification number (Finland)	b838548b-27f4-432e-995d-d6f010ddc054
SCIP notification number (France)	f8624fab-28b1-4e5c-884b-281889e245b6
SCIP notification number (Germany)	6b0e7913-f1f6-4653-a250-30db25b5f00f
SCIP notification number (Hungary)	fd0a1981-92f6-4956-b0c0-4e68d5a0b824
SCIP notification number (Italy)	0a2e426f-fe6d-4c6d-9e2c-87aece3b0782
SCIP notification number (Netherlands)	a174c4d2-000e-4f7e-8a30-e51b04f3a2ef
SCIP notification number (Poland)	1b17d4fc-4891-4ede-9f5e-785666f7b66c
SCIP notification number (Romania)	1f7e99cb-0d5d-4b6b-bab1-1e3f3f7f9434
SCIP notification number (Sweden)	835a7ae4-0ed9-47ef-84bc-ec0d7a8bac18

# Approvals / Certificates

# General approvals





Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	2157201.01
CSA DEKRA Certification B.V.	C22.2	1536071
UL UL International Germany GmbH	UL 1059	E45172

# Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

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# Approvals for marine applications







Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
BV Bureau Veritas S.A.	EN 60947	07436/F0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

# Downloads Environmental Product Compliance Compliance Search Environmental Product Compliance 280-837



CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 280-837	EPLAN Data Portal 280-837
	WSCAD Universe 280-837
	ZUKEN Portal 280-837

https://www.wago.com/280-837



#### 1 Compatible Products

#### 1.1 Required Accessories

#### 1.1.1 End plate

# 1.1.1.1 End plate



Item No.: 280-314
End and intermediate plate; 2.5 mm thick; gray

Item No.: 280-315

End and intermediate plate; 2.5 mm thick; orange

Item No.: 280-334

Separator plate; 2 mm thick; oversized; grav

Item No.: 280-335

Separator plate; 2 mm thick; oversized; orange

# 1.2 Optional Accessories

# 1.2.1 DIN-rail

# 1.2.1.1 Mounting accessories



Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715: silver-colored

#### Item No.: 210-198

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

#### Item No.: 210-508

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored

#### Item No.: 210-197

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



#### Item No.: 210-506

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored

#### Item No.: 210-114

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored

#### Item No.: 210-118

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

#### 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; silver-colored



# 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; silver-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; silver-colored

#### Item No.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

# Item No.: 210-505

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

#### 1.2.2 Ferrule

# 1.2.2.1 Ferrule

Item No.: 216-301

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

# Item No.: 216-302

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

# Item No.: 216-201

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

# Item No.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored



# Item No.: 216-202

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

#### Item No.: 216-102

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-co-lored

# Item No.: 216-203

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

#### Item No.: 216-103

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



#### Item No.: 216-204

Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

#### Item No.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

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#### 1.2.3 Installation

# 1.2.3.1 Cover



#### Item No.: 709-153

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

# 1.2.3.2 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

# 1.2.3.3 Mounting accessories





#### Item No.: 209-106

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

#### Item No.: 249-116

Screwless end stop; 6 mm wide; for DINrail 35 x 15 and 35 x 7.5; gray

# 1.2.4 Insulation stop

# 1.2.4.1 Insulation stop





# 2000

#### Item No.: 280-470

Insulation stop; 0.08 - 0.2 mm<sup>2</sup> "s" (0.14 mm<sup>2</sup> "f-st"); 5 pieces/strip; white

#### Item No.: 280-471

Insulation stop; 0.25 - 0.5 mm²; 5 pieces/ strip; light gray

# Item No.: 280-472

Insulation stop; 0.75 - 1 mm²; 5 pieces/ strip; black

# 1.2.5 Jumper

# 1.2.5.1 Jumper

Item No.: 280-490

Jumper; 10-way; insulated; gray

Item No.: 280-482

Jumper; 2-way; insulated; gray

Item No.: 280-492

Jumper; 2-way; insulated; gray

N 000 400

<u>Item No.: 280-483</u> Jumper; 3-way; insulated; gray

Item No.: 280-484

Jumper; 4-way; insulated; gray

Item No.: 280-485

Jumper; 5-way; insulated; gray

Item No.: 280-402

Jumper; insulated; gray

Item No.: 280-409

Jumper; insulated; gray

Item No.: 280-422

Jumper; insulated; yellow-green

Item No.: 780-452

Staggered jumper; from 1 to 2; insulated; gray

Item No.: 780-453

Staggered jumper; from 1 to 3; insulated; gray

Item No.: 780-454

Staggered jumper; from 1 to 4; insulated; gray

Item No.: 780-455

Staggered jumper; from 1 to 5; insulated; gray

Item No.: 780-456

Staggered jumper; from 1 to 6; insulated; gray

Item No.: 780-457

Staggered jumper; from 1 to 7; insulated; gray

Item No.: 780-458

Staggered jumper; from 1 to 8; insulated; gray

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#### 1.2.5.1 Jumper





ted; black

Item No.: 709-112



Item No.: 709-110

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated; black

Item No.: 709-111 Wire commoning chain; 2.5 mm<sup>2</sup>; insula-

Wire commoning chain; 2.5 mm<sup>2</sup>; insulated: black

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

Item No.: 210-123

Wire commoning chain; insulated; blue

# 1.2.6 Marking

#### 1.2.6.1 Double marker carrier



Item No.: 209-128 Adaptor; gray

# 1.2.6.2 Group marker carrier



Item No.: 209-141

Item No.: 793-5501/000-007

Item No.: 793-5501/000-005

5.2 mm; plain; snap-on type; red

Item No.: 793-501/000-006

ble; plain; snap-on type; blue

Item No.: 793-501/000-012

ble; plain; snap-on type; orange

5.2 mm; plain; snap-on type; gray

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

WMB marking card; as card; not stretcha-

Group marker carrier; gray

Item No.: 209-142 Group marker carrier; gray

Item No.: 793-5501/000-023

Item No.: 793-5501/000-024

Item No.: 793-501/000-007

ble; plain; snap-on type; gray

Item No.: 793-501/000-005

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

WMB marking card; as card; not stretcha-

5.2 mm; plain; snap-on type; violet

5.2 mm; plain; snap-on type; green

Item No.: 249-105

Group marker carrier; gray

Item No.: 793-5501/000-017

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; light green

WMB marking card; as card; for terminal

block width 5 - 17.5 mm; stretchable 5 -

WMB marking card; as card; not stretcha-

WMB marking card; as card; not stretcha-

5.2 mm; plain; snap-on type; white

Item No.: 793-501/000-023

ble; plain; snap-on type; green

Item No.: 793-501/000-024

ble; plain; snap-on type; violet

#### 1.2.6.3 Marker

Item No.: 209-140

Group marker carrier; grav



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



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



# 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



#### Item No.: 793-501/000-017

WMB marking card; as card; not stretchable; plain; snap-on type; light green



# Item No.: 793-501

WMB marking card; as card; not stretchable; plain; snap-on type; white



# 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

WMB marking card; as card; not stretchable; plain; snap-on type; yellow

WMB marking card; as card; not stretcha-



# Item No.: 793-501/000-002





# Item No.: 2009-115/000-017

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

WMB marking card; as card; not stretchable; plain; snap-on type; red



#### 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





# 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

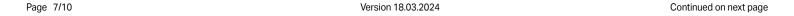


# Item No.: 2009-115/000-012

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



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



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# 1.2.6.3 Marker



Item No.: 2009-115

WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

# 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

# 1.2.7 Protective warning marker

#### 1.2.7.1 Cover

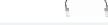


#### Item No.: 280-415

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

# 1.2.8 Push-in type wire jumper

#### 1.2.8.1 Jumper



Item No.: 249-126

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 110 mm long; black

# Item No.: 249-123

Push-in type wire jumper; 0.75 mm<sup>2</sup>; insulated; 180 mm long; black

# Item No.: 249-127

Push-in type wire jumper; 0.75 mm²; insulated; 250 mm long; black

# Item No.: 249-125

Push-in type wire jumper; insulated; 60 mm long; black

#### 1.2.9 Test and measurement

# 1.2.9.1 Testing accessories



Item No.: 249-107

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

# Item No.: 249-106

B-type test plug module; modular; 1,50 mm²; gray

# Item No.: 249-142

L-type end module; modular; with rigid contact pin; End module; 1,50 mm²; gray

# Item No.: 249-143

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

# Item No.: 249-141

L-type test plug module; modular; with spring-loaded contact pin; Center module; 1,50 mm²; gray

#### Item No.: 280-419

Spacer module; modular; bridging commoned terminal blocks; gray

#### Item No.: 280-404

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

# 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

#### Item No.: 280-418

Test plug module; modular; suitable for all WAGO 280 and 780 Series rail-mounted terminal blocks with jumper slots in the current bar; gray

# 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



# 1.2.10 Tool

# 1.2.10.1 Operating tool



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

# Item No.: 210-720

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

# Item No.: 210-657

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

# **Installation Notes**

# Installation



Snapping a ground conductor block onto the DIN-rail automatically makes a direct electrical connection to the rail.



Quick assembly keys prevent reverse mounting.



Removing a terminal block from the assembly.

# 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.



CAGE CLAMP® connection Removing a solid conductor.



Inserting insulation stops.

https://www.wago.com/280-837



# Marking



Labeling via WMB Multi Marking System.

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

Current addresses can be found at::  $\underline{www.wago.com}$ 

Page 10/10 Version 18.03.2024