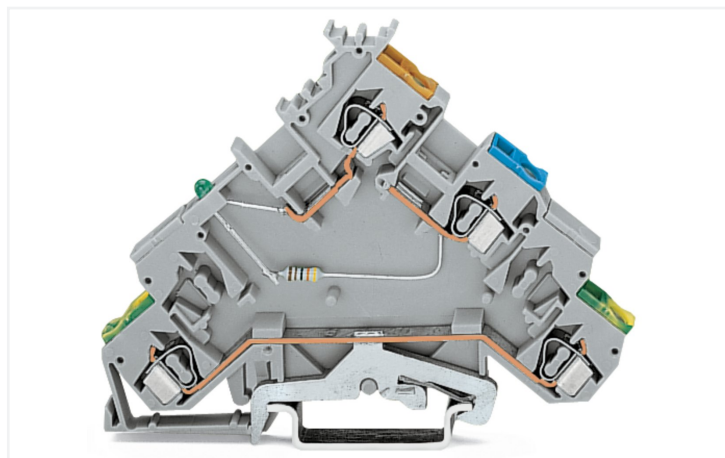
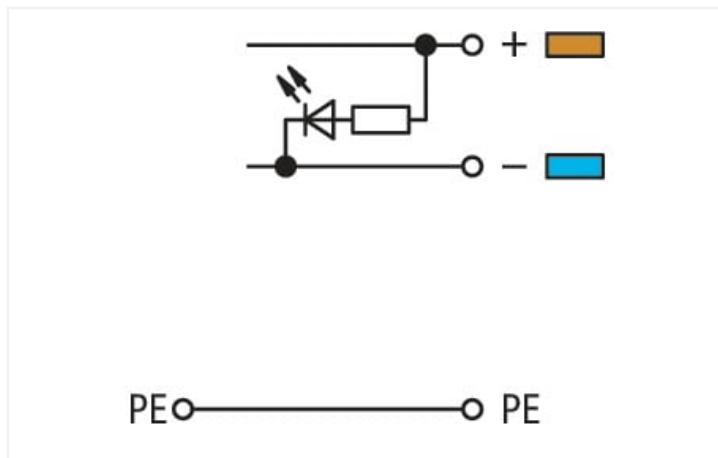


4-conductor sensor supply terminal block; LED (green); for PNP-(high-side) switching sensors; with end plate; with colored conductor entries; 2.5 mm<sup>2</sup>; CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray



Similar to illustration



Our sensor terminal block (item number 280-577/281-496) simplifies electrical installations. Strip lengths must be between 8 mm and 9 mm when connecting conductors to this sensor terminal block. This product features conductor terminals and utilizes CAGE CLAMP®. Our proven universal connection known as CAGE CLAMP® leads the way when it comes to connection technology and electrical interconnections. Depending on the type of conductor, this sensor terminal block is designed for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>. It has four levels. Three potentials can connect using the four clamping points. The gray housing is made of polyamide (PA66) for insulation. These function terminal blocks are mounted using DIN-35 rails..

Ratings per IEC/EN	
Rated current	20 A

Power Loss	
Power loss, per pole (potential)	0.532 W
Rated current $I_N$ for specified power loss	20 A
Resistance value for specified, current-dependent power loss	0.00133 $\Omega$

Voltage type 1	DC
Nominal voltage	24 V
Current consumption (note)	LED 4.8 mA
LED schaltend für	PNP

Clamping units	4	<b>Connection 1</b>	
Total number of potentials	3	Connection technology	CAGE CLAMP®
Number of levels	4	Actuation type	Operating tool
		Connectable conductor materials	Copper Aluminum



Connection 1

Connectable conductor materials (note)	<p><b>Terminating Aluminum Conductors</b></p> <p>WAGO Spring-Clamp Terminal Blocks are suitable for solid aluminum conductors up to 4 mm²/12 AWG if WAGO “Alu-Plus” Contact Paste <a href="#">249-130</a> is used for termination.</p> <p>“Alu-Plus” Contact Paste Advantages:</p> <ul style="list-style-type: none"><li>• Automatically destroys the oxide film during clamping.</li><li>• Prevents fresh oxidation at the clamping point.</li><li>• Prevents electrolytic corrosion between aluminum and copper conductors (in the same terminal block).</li><li>• Provides long-term protection against corrosion.</li></ul> <p>Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, <b>aluminum conductors must first be cleaned with a blade</b> and then immediately inserted into the clamping units filled with “Alu-Plus” contact paste.</p> <p>It is also possible to apply WAGO “Alu-Plus” <b>additionally</b> on the whole surface of the aluminum conductor before termination.</p> <p>Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors::</p> <p>2.5 mm² = 16 A 4 mm² = 22 A</p>
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 data	
Width	6 mm / 0.236 inches
Height	90.5 mm / 3.563 inches
Depth from upper-edge of DIN-rail	63.5 mm / 2.5 inches

Mechanical data	
Design	angled
Mounting type	DIN-35 rail
Marking level	Center marking



Material data	
Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.436 MJ
Weight	21.1 g



Environmental requirements	
Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

Commercial data	
Product Group	1 (Rail Mounted Terminal Blocks)
eCl@ss 10.0	27-14-11-28
eCl@ss 9.0	27-14-11-28
ETIM 9.0	EC000900
ETIM 8.0	EC000900
PU (SPU)	20 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454365776
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)	5c8c7eeb-4d2b-44fa-9bea-86a406450d77
SCIP notification number (Belgium)	a186b9d2-4f0c-44aa-b9fd-957b92265b2d
SCIP notification number (Bulgaria)	1f44b49a-960e-4d2e-b50a-83dde9c81e72
SCIP notification number (Czech Republic)	68841133-6de7-4c18-9e60-a64496de9454
SCIP notification number (Denmark)	6501b93b-8a35-4895-990f-2ed815d2d6b7
SCIP notification number (Finland)	de69098d-fe53-438b-82ad-c29e7a51c13a
SCIP notification number (France)	963ee2dc-a9b4-4bb5-96ad-f345065af8c2
SCIP notification number (Germany)	f23b7083-b710-46f4-a8e2-ad815cbcd155
SCIP notification number (Hungary)	3d1f2ca0-92a9-43a6-82e2-8b540e51cfcc
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SCIP notification number (Poland)	d0225d07-f4c2-4ff1-aa98-c650904e227a
SCIP notification number (Romania)	642d5cad-8b78-408e-a910-2d4191ede0e8
SCIP notification number (Sweden)	662678c7-e89f-4c40-885b-8eb646261944

Approvals / Certificates											
General approvals		Declarations of conformity and manufacturer's declarations									
 											
Approval	Standard	Certificate Name									
CCA DEKRA Certification B.V.	EN 60947	2160584.53									
UR Underwriters Laboratories Inc.	UL 1059	E45172									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	20-HG1941090-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 280-577/281-496





Documentation

Additional Information
Technical Section

pdf  
2246.92 KB



Bid Text			
280-577/281-496	19.02.2019	xml 3.52 KB	<a href="#"></a>
280-577/281-496	14.03.2017	doc 25.00 KB	<a href="#"></a>



CAD/CAE-Data

CAD data
2D/3D Models 280-577/281-496



CAE data
EPLAN Data Portal 280-577/281-496
WSCAD Universe 280-577/281-496
ZUKEN Portal 280-577/281-496





1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



**Item No.: 280-320**  
End and intermediate plate; 1 mm thick;  
for quadruple-deck terminal blocks; gray



**Item No.: 280-323**  
End and intermediate plate; 1 mm thick;  
for quadruple-deck terminal blocks; orange

1.2 Optional Accessories

1.2.1 DIN-rail

1.2.1.1 Mounting accessories



**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



**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; simi-  
lar 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; galvanized; si-  
milar 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 mm² / AWG 24; in-  
sulated; electro-tin plated; yellow



**Item No.: 216-302**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; in-  
sulated; electro-tin plated; light turquoise



**Item No.: 216-201**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; in-  
sulated; electro-tin plated; electrolytic  
copper; acc. to DIN 46228, Part 4/09.90;  
white



**Item No.: 216-101**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; un-  
insulated; electro-tin plated; silver-colo-  
red



**Item No.: 216-202**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; in-  
sulated; electro-tin plated; gray



**Item No.: 216-102**  
Ferrule; Sleeve for 0.75 mm² / AWG 20;  
uninsulated; electro-tin plated; silver-co-  
lored



**Item No.: 216-203**  
Ferrule; Sleeve for 1 mm² / AWG 18; insu-  
lated; electro-tin plated; red



**Item No.: 216-103**  
Ferrule; Sleeve for 1 mm² / AWG 18; unin-  
sulated; electro-tin plated



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; in-  
sulated; electro-tin plated; black



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-  
insulated; electro-tin plated; silver-colo-  
red

1.2.3 Installation

1.2.3.1 Cover



**Item No.: 709-154**  
Cover; Type 2; suitable for cover carrier, type 2; 1 m long; transparent

1.2.3.2 Cover carrier



**Item No.: 709-168**  
Cover carrier; Type 2; incl. fixing/retaining screws and knurled nut; suitable for 283 to 285 Series rail-mounted terminal blocks; suitable for 279 to 281 Series double- and triple-deck terminal blocks; suitable for 780 to 785, 775, 776 and 777 Series TOP-JOB® rail-mounted terminal blocks; suitable for 280 Series sensor and actuator terminal blocks; suitable for 282 Series disconnect/test terminal blocks for transformer circuits; gray

1.2.3.3 Mounting accessories



**Item No.: 249-116**  
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 280-470**  
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "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



**Item No.: 280-483**  
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.: 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





























1.2.5.1 Jumper

 <b>Item No.: 780-457</b> Staggered jumper; from 1 to 7; insulated; gray	 <b>Item No.: 780-458</b> Staggered jumper; from 1 to 8; insulated; gray	 <b>Item No.: 709-110</b> Wire commoning chain; 2.5 mm²; insulated; black	 <b>Item No.: 709-111</b> Wire commoning chain; 2.5 mm²; insulated; black
 <b>Item No.: 709-112</b> Wire commoning chain; 2.5 mm²; insulated; black	 <b>Item No.: 210-103</b> Wire commoning chain; insulated; black	 <b>Item No.: 210-123</b> Wire commoning chain; insulated; blue	

1.2.6 Marking

1.2.6.1 Marker

 <b>Item No.: 793-5501/000-006</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue	 <b>Item No.: 793-5501/000-007</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray	 <b>Item No.: 793-5501/000-023</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green	 <b>Item No.: 793-5501/000-017</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green
 <b>Item No.: 793-5501/000-012</b> WMB marking card; as card; for terminal block width 5 - 5.2 mm; plain; snap-on type; orange	 <b>Item No.: 793-5501/000-005</b> WMB marking card; as card; for terminal block width 5 - 5.2 mm; plain; snap-on type; red	 <b>Item No.: 793-5501/000-024</b> WMB marking card; as card; for terminal block width 5 - 5.2 mm; plain; snap-on type; violet	 <b>Item No.: 793-5501</b> WMB marking card; as card; for terminal block width 5 - 5.2 mm; plain; snap-on type; white
 <b>Item No.: 793-5501/000-002</b> WMB marking card; as card; for terminal block width 5 - 5.2 mm; plain; snap-on type; yellow	 <b>Item No.: 793-501/000-006</b> WMB marking card; as card; not stretchable; plain; snap-on type; blue	 <b>Item No.: 793-501/000-007</b> WMB marking card; as card; not stretchable; plain; snap-on type; gray	 <b>Item No.: 793-501/000-023</b> WMB marking card; as card; not stretchable; plain; snap-on type; green
 <b>Item No.: 793-501/000-017</b> WMB marking card; as card; not stretchable; plain; snap-on type; light green	 <b>Item No.: 793-501/000-012</b> WMB marking card; as card; not stretchable; plain; snap-on type; orange	 <b>Item No.: 793-501/000-005</b> WMB marking card; as card; not stretchable; plain; snap-on type; red	 <b>Item No.: 793-501/000-024</b> WMB marking card; as card; not stretchable; plain; snap-on type; violet
 <b>Item No.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type; white	 <b>Item No.: 793-501/000-002</b> WMB marking card; as card; not stretchable; plain; snap-on type; yellow	 <b>Item No.: 2009-115/000-006</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	 <b>Item No.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray
 <b>Item No.: 2009-115/000-023</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	 <b>Item No.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green	 <b>Item No.: 2009-115/000-012</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	 <b>Item No.: 2009-115/000-024</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet
 <b>Item No.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	 <b>Item No.: 2009-115/000-002</b> 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 mm<sup>2</sup>; 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.: 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

1.2.10 Tool

1.2.10.1 Operating tool



**Item No.: 210-658**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



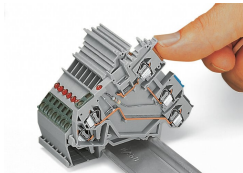
**Item No.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



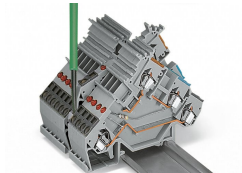
**Item No.: 210-657**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Installation



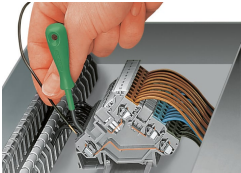
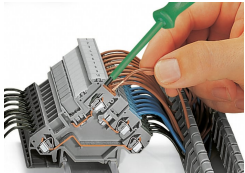
Snapping a terminal block onto the DIN-rail.  
Terminal blocks with a grounding foot automatically establish a direct contact to the rail.



Removing the terminal block from DIN-rail.  
Notice: Remove jumper contacts first!



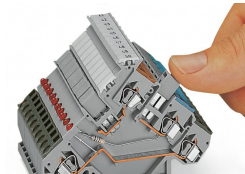
Conductor termination



**CAGE CLAMP® connection**  
Inserting a conductor via straight operating tool (210-720).

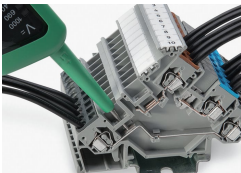
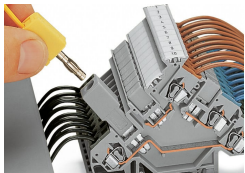
**CAGE CLAMP® connection**  
Inserting a conductor via angled operating tool (210-658).

Commoning



Commoning using an adjacent jumper (280-402).  
Push jumper down until fully inserted.

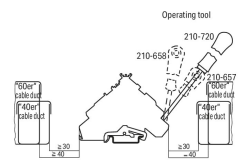
Testing



Testing via banana plug and test plug adapter (209-170).

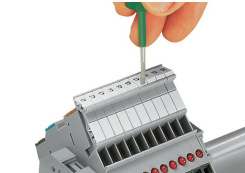
Testing via voltage tester directly on the current bar.

Installation



Min. mounting distance – terminal blocks to cable duct

Marking



Labeling via WMB Multi Marking System.