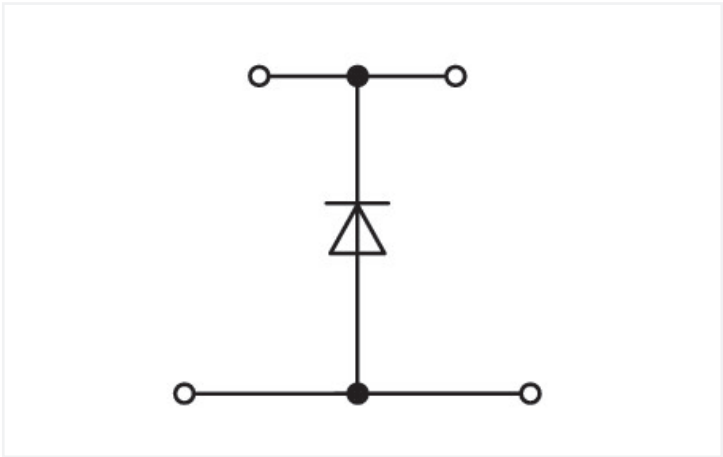


Color: ■ gray



280-940/281-410

Electrical data					General information	
Ratings per		IEC/EN 60947-7-1				
Overvoltage category		III	III	II	Nominal voltage	250 V
Pollution degree		3	2	2	Reverse voltage	1000 V
Nominal voltage		-	-	-		
Rated surge voltage		-	-	-		
Rated current		-	-	-		

Connection data		Connection 1	
Connection points	4	Connection technology	CAGE CLAMP®
Total number of potentials	2	Actuation type	Operating tool
Number of levels	2	Connectable conductor materials	Copper Aluminum



Connection 1	
Connectable conductor materials (note)	<p>Terminating Aluminum Conductors</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 249-130 is used for termination.</p> <p>“Alu-Plus” Contact Paste Advantages:</p> <ul style="list-style-type: none">• 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. <p>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.</p> <p>It is also possible to apply WAGO “Alu-Plus” additionally 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 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Wiring direction	Front-entry wiring

Physical data	
Width	5 mm / 0.197 inches
Height	64 mm / 2.52 inches
Depth from upper-edge of DIN-rail	58.5 mm / 2.303 inches

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


Material data	
Note (material data)	Information on material specifications can be found here
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.245 MJ
Weight	10.3 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	27-14-11-27
eCl@ss 9.0	27-14-11-27
ETIM 8.0	EC000903
ETIM 7.0	EC000903
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454196592
Customs tariff number	85369010000

Environmental Product Compliance	
CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I
SCIP notification number (Austria)	56db2621-e072-4c5f-a38c-e8b177ed8041
SCIP notification number (Belgium)	0572375e-6b22-4be3-98b0-2868ec3f5a3b
SCIP notification number (Bulgaria)	da34e397-b5e6-4c44-b22e-9a190f3f5cdf
SCIP notification number (Czech Republic)	908581b9-b2fb-4a50-8fba-475179162be1
SCIP notification number (Denmark)	70762b26-b3fb-4e5b-8cd4-0a62facaca41
SCIP notification number (Finland)	14d7ec3b-d1f2-47fb-9bac-cac4cc2c8bf0
SCIP notification number (France)	9b4cbaca-b745-4220-b1fa-e900015d9a65
SCIP notification number (Germany)	656c43c6-4dd4-477c-bed4-0e3c4c104297
SCIP notification number (Hungary)	2c924971-40f6-45c3-ab06-a117dd976390
SCIP notification number (Italy)	67e9c149-a096-4fd1-a796-f3c24c0ce533
SCIP notification number (Netherlands)	f27345b9-6b08-4a40-a5bd-cef99f637d45
SCIP notification number (Poland)	0c67cb73-3271-4762-bc80-9b6af5830a00
SCIP notification number (Romania)	1ceb5871-a340-472f-b4a2-a2bf8fb746c7
SCIP notification number (Sweden)	bfb75b10-9e46-4f04-a372-c574b40fc59e

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
		
Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	2157201.01
		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
LR Lloyds Register	EN 60947	91/20112 (E9)

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 280-940/281-410





Documentation

Additional Information
Technical Section

pdf
2240.62 KB



Bid Text			
280-940/281-410	19.02.2019	xml 3.23 KB	
280-940/281-410	27.04.2017	doc 24.50 KB	



CAD/CAE-Data

CAD data
2D/3D Models 280-940/281-410



CAE data
EPLAN Data Portal 280-940/281-410
WSCAD Universe 280-940/281-410
ZUKEN Portal 280-940/281-410



1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 280-340
End and intermediate plate; 2.5 mm thick;
gray













Item No.: 280-341
End and intermediate plate; 2.5 mm thick;
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; 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 Female connector

1.2.2.1 Female connector/socket

 Item No.: 722-240/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 10-pole; light gray	 Item No.: 722-242/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 12-pole; light gray	 Item No.: 722-244/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 14-pole; light gray	 Item No.: 722-246/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 16-pole; light gray
 Item No.: 722-232/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 2-pole; light gray	 Item No.: 722-233/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 3-pole; light gray	 Item No.: 722-234/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 4-pole; light gray	 Item No.: 722-235/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 5-pole; light gray
 Item No.: 722-236/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 6-pole; light gray	 Item No.: 722-237/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 7-pole; light gray	 Item No.: 722-239/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 9-pole; light gray	 Item No.: 722-240/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 10-pole; light gray
 Item No.: 722-241/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 11-pole; light gray	 Item No.: 722-242/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 12-pole; light gray	 Item No.: 722-243/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 13-pole; light gray	 Item No.: 722-244/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 14-pole; light gray
 Item No.: 722-246/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 16-pole; light gray	 Item No.: 722-250/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 20-pole; light gray	 Item No.: 722-232/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 2-pole; light gray	 Item No.: 722-233/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 3-pole; light gray



1.2.3 Ferrule

1.2.3.1 Ferrule



Item No.: 216-301
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



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



Item No.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



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



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



Item No.: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; un-insulated; electro-tin plated; silver-colored



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



Item No.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; 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; un-insulated; electro-tin plated; silver-colored

1.2.4 Installation

1.2.4.1 Cover



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

1.2.4.2 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

1.2.4.3 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 DIN-rail 35 x 15 and 35 x 7.5; gray



1.2.5 Insulation stop

1.2.5.1 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

1.2.6 Jumper

1.2.6.1 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.: 709-110](#)
Wire commoning chain; 2.5 mm²; insulated; black



[Item No.: 709-111](#)
Wire commoning chain; 2.5 mm²; insulated; black



[Item No.: 709-112](#)
Wire commoning chain; 2.5 mm²; insulated; black



[Item No.: 210-103](#)
Wire commoning chain; insulated; black



[Item No.: 210-123](#)
Wire commoning chain; insulated; blue

1.2.7 Male connector

1.2.7.1 Male connector/plug



[Item No.: 231-170/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 10-pole; gray



[Item No.: 231-171/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 11-pole; gray



[Item No.: 231-172/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 12-pole; gray



[Item No.: 231-176/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 16-pole; gray



[Item No.: 231-180/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 20-pole; gray



[Item No.: 231-162/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 2-pole; gray



[Item No.: 231-163/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 3-pole; gray



[Item No.: 231-164/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 4-pole; gray



[Item No.: 231-165/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 5-pole; gray



[Item No.: 231-166/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 6-pole; gray



[Item No.: 231-167/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 7-pole; gray



[Item No.: 231-168/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 8-pole; gray



[Item No.: 231-169/003-000](#)
Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 9-pole; gray



1.2.8 Marking

1.2.8.1 Marker



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.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray



Item No.: 793-5501/000-023
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green



Item No.: 793-5501/000-017
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green



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.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red



Item No.: 793-5501/000-024
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet



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



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.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray



Item No.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green



Item No.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red



Item No.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet



Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type; yellow



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.: 2009-115/000-023
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



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



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



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

1.2.9 Protective warning marker

1.2.9.1 Cover



Item No.: 280-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.10 Test and measurement

1.2.10.1 Testing accessories



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

1.2.11 Tool

1.2.11.1 Operating tool



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

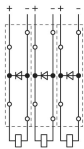


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



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

Installation Notes



Recovery diodes can be created using the following terminal blocks:
280-940/281-410 or 280-940/281-411