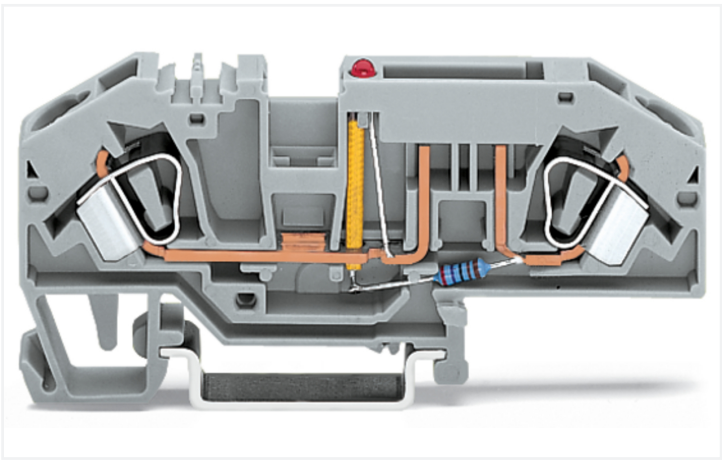
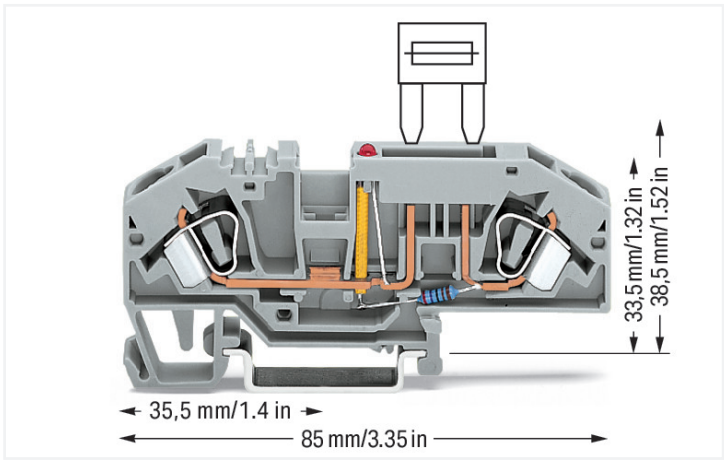
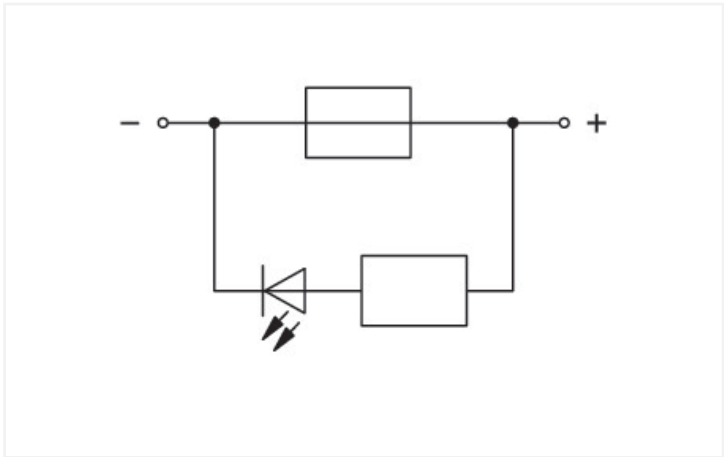


Data Sheet | Item Number: 282-698/281-413
2-conductor fuse terminal block; for automotive blade-style fuses; with test option; with blown fuse indication by LED; 24 V; for DIN-rail 35 x 15 and 35 x 7.5; 6 mm²; CAGE CLAMP®; gray
<https://www.wago.com/282-698/281-413>



Color: ■ gray



Fuse terminal block, 282 Series, gray

Easily, quickly and safely connect conductors with this fuse terminal block (item number 282-698/281-413). Strip lengths must be between 12 and 13 mm when connecting conductors to this fuse terminal block. This product features conductor terminals and utilizes CAGE CLAMP®. Our CAGE CLAMP® connection offers a secure and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping ferrules. Depending on the conductor type, this fuse terminal block is ideal for conductor cross sections ranging from 0.2 mm² to 6 mm².

Electrical data				
Ratings per		IEC/EN 60947-7-3		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		400 V	-	-
Rated impulse withstand voltage		6 kV	-	-
Rated current		25 A	-	-
Current at conductor cross-section (max.) mm ²		30 A	-	-
Ratings per IEC/EN – Notes				
Ratings (note)		Electrical ratings are given by the fuse and blown fuse indication.		
Rated current (note)		LED power consumption: 4.8 mA		

Ratings per IEC/EN 2	
Ratings (note)	Blade-style fuses: Observe touch-proof protection for 42 V and higher voltages!

General information	
Fuse receptacle	pluggable
Fuse type	Standard flat plug-in fuse; 19.1 x 5.1 x 18.5 mm
Number/type of diode/LED	Red LED
Wiring direction	Front-entry wiring
Alignment	Right-side anode

Connection Data			
Clamping units	2	Connection 1	
Total number of potentials	2	Connection technology	CAGE CLAMP®
Number of levels	1	Actuation type	Operating tool
		Connectable conductor materials	Copper
		Solid conductor	0.2 ... 6 mm² / 24 ... 10 AWG
		Fine-stranded conductor	0.2 ... 6 mm² / 24 ... 10 AWG
		Strip length	12 ... 13 mm / 0.47 ... 0.51 inches
		Wiring direction	Front-entry wiring

Physical data	
Width	8 mm / 0.315 inches
Height	85 mm / 3.346 inches
Depth from upper-edge of DIN-rail	33.5 mm / 1.319 inches

Mechanical data	
Design	angled
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 (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.299 MJ
Weight	17.7 g

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

Commercial data	
Product Group	1 (Rail Mounted Terminal Blocks)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821234555
Customs tariff number	85369095000

Product Classification	
UNSPSC	39121410
eCl@ss 10.0	27-14-11-16
eCl@ss 9.0	27-14-11-16
ETIM 9.0	EC000899
ETIM 10.0	EC000899
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL 8027
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-136074
UL Underwriters Laboratories Inc.	UL 1059	20190731-E45172

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 282-698/281-413	



Documentation

Bid Text			
282-698/281-413	19.02.2019	xml 3.68 KB	
282-698/281-413	09.03.2017	doc 25.00 KB	

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 282-698/281-413	EPLAN Data Portal 282-698/281-413
	WSCAD Universe 282-698/281-413
	ZUKEN Portal 282-698/281-413

1 Compatible Products

1.1 Required Accessories

1.1.1 End plate

1.1.1.1 End plate



Item No.: 282-334
End plate; 2 mm thick; gray



Item No.: 282-333
End plate; 2 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 Ferrule

1.2.2.1 Ferrule



Item No.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-266
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue



Item No.: 216-267
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

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 TOPJOB® 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.: 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

1.2.4 Jumper

1.2.4.1 Jumper



Item No.: 282-402
Jumper; insulated; gray



Item No.: 282-409
Jumper; insulated; gray



Item No.: 282-424
Jumper; insulated; orange



Item No.: 282-422
Jumper; insulated; yellow-green



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

1.2.5 Marking

1.2.5.1 Group marker carrier



Item No.: 209-143
Group marker carrier; gray



Item No.: 209-144
Group marker carrier; gray



Item No.: 249-105
Group marker carrier; gray

1.2.5.2 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.: 793-5501/000-014
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown



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

1.2.6 Protective warning marker

1.2.6.1 Cover



Item No.: 282-415
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

1.2.7 Test and measurement

1.2.7.1 Testing accessories



Item No.: 709-311
B-type spacer module; modular; e.g., for bridging commoned terminal blocks; gray



Item No.: 709-310
B-type test plug module; modular; suitable for all WAGO 282 Series rail-mounted terminal blocks with jumper slots; 6,00 mm²; gray



Item No.: 209-170
Test plug adapter; 8.3 mm wide; for 4 mm Ø test plugs; suitable for 1.5 mm² - 10 mm² tbs; gray



Item No.: 210-136
Test plug; 2 mm Ø; with 500 mm cable; red

1.2.8 Tool

1.2.8.1 Operating tool



Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

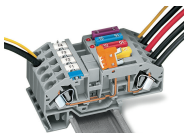
Testing



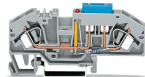
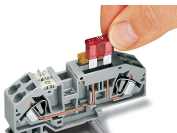
Testing via conductor entry.



Testing via jumper contact slot.



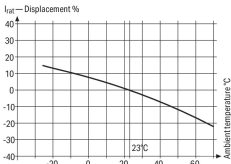
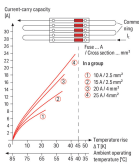
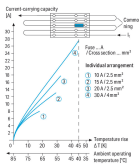
Power supply via disconnect link – disconnecting all outputs.



Inserting a fuse.

Blown fuse indication via LED

2-conductor fuse terminal block with mini-automotive blade-style fuse



Information from the mini-automotive, blade-type fuse manufacturers			
Operating temperature, °C	Rating, A	Rating, mm²	F ₁
-25	14	0.877	
-15	12	0.885	
-5	10	0.893	
5	8	0.901	
15	6	0.909	
25	4	0.917	
35	3	0.925	
45	2	0.933	
55	1.5	0.941	
65	1	0.949	
75	0.75	0.957	
85	0.5	0.965	
95	0.35	0.973	
105	0.25	0.981	
115	0.18	0.989	
125	0.15	0.997	
135	0.12	1.005	
145	0.1	1.013	
155	0.08	1.021	
165	0.06	1.029	
175	0.05	1.037	
185	0.04	1.045	
195	0.03	1.053	
205	0.02	1.061	
215	0.01	1.069	
225	0.01	1.077	

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Diagram: "Individual Arrangement"

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Diagram: "Block Arrangement"

Application Notes on Terminal Blocks for Glass Cartridge Fuses
Nominal current ratings for fuse cartridges are defined differently in international standards. This is why the recommended continuous current-carrying capacity of the fuses is a max. 80% of their nominal current according to DIN 72581/Part 3 (for a surrounding air temperature of 23°C).
Selecting the correct fuse cartridge is important for product safety within applications, as well as for fuse cartridge service life and reliability. Fuse cartridges will only operate perfectly as protection components (break-off point) if they are properly selected and used as intended (i.e., according to the state of the technology and valid specifications, as well as data sheet characteristics), according to basic safety requirements (i.e., persons, animals and property must be protected against hazards).

Concerning product safety, fuse cartridges must generally be tested under both normal and faulty operating conditions within your application.