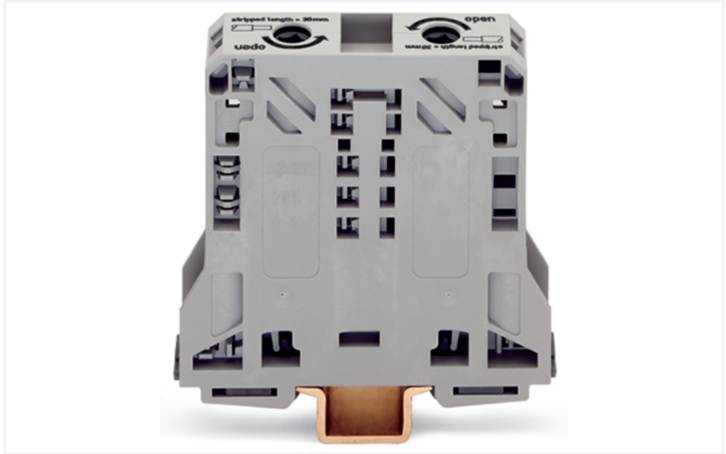
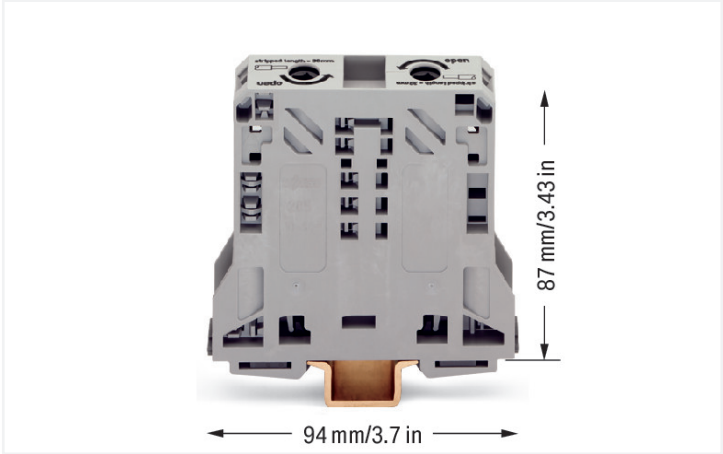




Color: ■ gray

Through terminal block, 285 Series, t-wrench und 8 mm

This through terminal block (item number 285-150) is designed for easy and secure connections. Strip lengths must be 30 mm when connecting conductors to this through terminal block. Featuring conductor terminals along with POWER CAGE CLAMP, this product delivers reliable performance. The POWER CAGE CLAMP is perfect for connecting large conductor cross-sections. This universal connector is both reliable and maintenance-free. What's more, you can use it to connect all types of conductors and the clamping point can be locked open, making it easier to use. You do not need to use a torque wrench or prepare the conductor. For example, crimping ferrules is not necessary. This through terminal block is suitable for conductor cross sections ranging from 10 mm² to 50 mm². It features one level and two clamping points for connecting a single potential. The gray housing is made of polyamide (PA66) for insulation. These high-current terminal blocks are mounted using DIN-rails 35 x 15..

Electrical data				
Ratings per		IEC/EN 60947-7-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		1000 V	-	-
Rated surge voltage		8 kV	-	-
Rated current		150 A	-	-
Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		600 V	600 V	-
Rated current		150 A	150 A	-
Approvals per		CSA 22.2 No 158		
Use group		B	C	D
Rated voltage		600 V	600 V	-
Rated current		150 A	-	-
Power Loss				
Power loss, per pole (potential)		4.725 W		
Rated current I _N for power loss specification		150 A		
Resistance value for specified, current-dependent power loss		0.0001 Ω		

Connection data		Connection 1	
Clamping units	2	Connection technology	POWER CAGE CLAMP
Total number of potentials	1	Actuation type	T-wrench; 8 mm
Number of levels	1	Connectable conductor materials	Copper
Number of jumper slots	2	Nominal cross-section	50 mm²
		Solid conductor	10 ... 50 mm² / 8 ... 1/0 AWG
		Stranded conductor	10 ... 50 mm² / 8 ... 1/0 AWG
		Fine-stranded conductor	10 ... 70 mm² / 8 ... 2/0 AWG
		Fine-stranded conductor; with insulated ferrule	10 ... 50 mm² / 8 ... 1/0 AWG



Connection 1	
Fine-stranded conductor; with uninsulated ferrule	10 ... 50 mm² / 8 ... 1/0 AWG
Strip length	30 mm / 1.18 inches
Wiring direction	Side-entry wiring

Physical data		
Width		20 mm / 0.787 inches
Height		94 mm / 3.701 inches
Depth from upper-edge of DIN-rail		87 mm / 3.425 inches

Mechanical data	
Mounting type	DIN-35 x 15 rail
Mounting (note)	only suitable for DIN 35 x 15 rail
Marking level	Side 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	2.168 MJ
Weight	158.8 g

Environmental requirements																																				
Processing temperature	-35 ... +85 °C	<table><tr><th colspan="2">Environmental Testing</th></tr><tr><td>Test specification: Railway applications – Rolling stock – Electronic equipment</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Mounting location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Functional test with noise-like oscillations</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min.</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Monitoring of contact faults and interruptions</td><td>Passed</td></tr><tr><td>Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Simulated service life test through increased levels of noise-like oscillations</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.572g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes</td></tr><tr><td>Extended testing: Monitoring of contact faults and interruptions</td><td>Passed</td></tr></table>	Environmental Testing		Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06	Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04	Spectrum/Mounting location	Service life test, Category 1, Class A/B	Functional test with noise-like oscillations	Test passed according to Section 8 of the standard	Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz	Acceleration	0.101g (highest test level used for all axes)	Test duration per axis	10 min.	Test directions	X, Y and Z axes	Monitoring of contact faults and interruptions	Passed	Voltage drop measurement before and after each axis	Passed	Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard	Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz	Acceleration	0.572g (highest test level used for all axes)	Test duration per axis	5 h	Test directions	X, Y and Z axes	Extended testing: Monitoring of contact faults and interruptions	Passed
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Test directions	X, Y and Z axes																																			
Extended testing: Monitoring of contact faults and interruptions	Passed																																			
Continuous operating temperature	-60 ... +105 °C																																			



Environmental Testing	
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data		
Product Group	1 (Rail Mounted Terminal Blocks)	
PU (SPU)	5 pcs	
Packaging type	Box	
Country of origin	PL	
GTIN	4045454507411	
Customs tariff number	85369010000	

Product Classification		
UNSPSC	39121410	
eCl@ss 10.0	27-14-11-20	
eCl@ss 9.0	27-14-11-20	
ETIM 9.0	EC000897	
ETIM 8.0	EC000897	
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-7707
CSA DEKRA Certification B.V.	C22.2 No. 158	154112
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-105562
UL Underwriters Laboratories Inc.	UL 1059	E45172
Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004420.000
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	EN 60947	24-0152298-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001V2

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 285-150



Documentation

Bid Text			
285-150	19.02.2019	xml 3.25 KB	
285-150	04.01.2018	doc 23.50 KB	



CAD/CAE-Data

CAD data
2D/3D Models 285-150



CAE data
EPLAN Data Portal 285-150
WSCAD Universe 285-150
ZUKEN Portal 285-150



1 Compatible Products

1.1 Optional Accessories

1.1.1 Cover

1.1.1.1 Cover



Item No.: 285-441
Finger guard; touchproof cover protects
unused conductor entries and jumper
slots; for 50 mm² high-current tbs; yellow

1.1.2 Current and voltage tap

1.1.2.1 Current and voltage tap



Item No.: 855-501/150-000
Current and voltage tap up to 50 mm²; Primary rated current: 150 A; Secondary rated current: 1 A; Rated power: 0.2 VA; Accuracy class: 0.5; fused

1.1.3 DIN-rail

1.1.3.1 Mounting accessories



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

1.1.4 Ferrule

1.1.4.1 Ferrule



Item No.: 216-424
Ferrule; Sleeve for 35 mm² / AWG 2; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



Item No.: 216-425
Ferrule; Sleeve for 50 mm² / AWG 1; uninsulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 1/08.92

1.1.5 Installation

1.1.5.1 Mounting accessories



Item No.: 285-448
Fixing element; for 50 mm² high-current terminal blocks; orange



Item No.: 249-197
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



1.1.6 Jumper

1.1.6.1 Jumper



Item No.: 285-450
Jumper; insulated; gray

1.1.7 Marking

1.1.7.1 Group marker carrier



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

1.1.7.2 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.: 2009-115/000-005
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



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

1.1.7.3 Marker carrier



[Item No.: 285-442](#)
Adaptor; gray

1.1.8 Power tap

1.1.8.1 Power tap



[Item No.: 285-447](#)
Power tap; for 50 mm² high-current tbs;
Module width 16 mm; gray

1.1.9 Protective warning marker

1.1.9.1 Cover



[Item No.: 285-440](#)
Protective warning marker; with high-voltage symbol, black; yellow



[Item No.: 285-449](#)
Protective warning marker; yellow

1.1.10 Tool

1.1.10.1 Operating tool



[Item No.: 285-172](#)
Allen wrench; with a partially insulated shaft; green



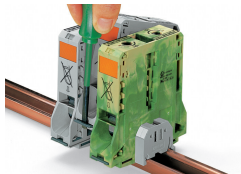
[Item No.: 285-173](#)
Allen wrench; with a partially insulated shaft; with anti-rotation protection; green

Installation Notes

Installation



Snapping a terminal block onto DIN-rail (to the left or to the right).



Removing a terminal block from the assembly (to the left or to the right).

Conductor termination



For the optimal clamping force:

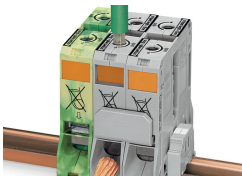
- Bend conductor
- Cut conductor to length (conductor end must be straight)
- Strip conductor



Always observe the on-unit printed strip length guide!



Conductor termination – step 1:
Rotate the T-wrench counter-clockwise to the stop. Next, push in the orange locking tab. The clamp is locked open for hands-free wiring.

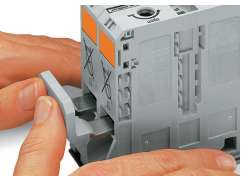


Conductor termination – step 2:
Insert a stripped conductor into the clamping unit until it hits the backstop. Hold in this position.

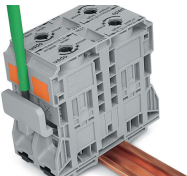


Conductor termination – step 3:
A short counter-clockwise rotation releases the tab. When unlocked, the T-wrench rotates clockwise, securely clamping the conductor.

Commoning

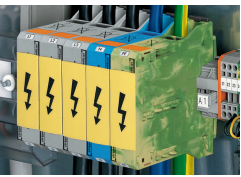


Commoning with an adjacent jumper: insert the jumper above the conductor entry hole – prior to conductor termination. The nominal cross-section remains unchanged.

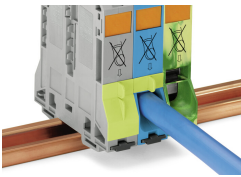


Removing jumper via operating tool.

Cover

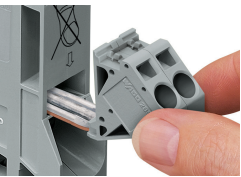


Protective warning marker may indicate: Notice: Power is still on even after switching off the main switch!

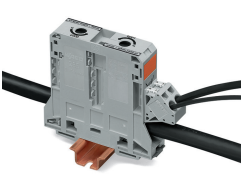


Yellow, detachable finger guards provide touch-proof safety by shielding jumper contact slots and/or unused conductor entries.

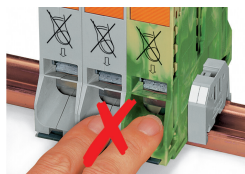
Power tap



Easily and consistently tap directly into the power supply. Insert the unwired tap before opening the clamping unit.



Security

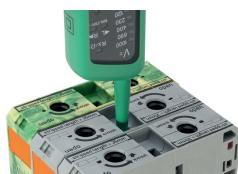


Risk of Injury!
Do not insert fingers in the conductor entry!

Testing

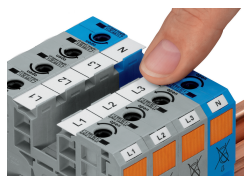


Testing via touch-proof 4 mm Ø test plugs (not available from WAGO, but offered by industry suppliers such as, Multi-Contact Deutschland GmbH).

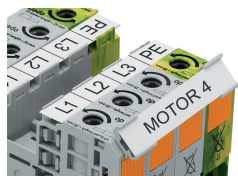


Testing
Voltage measurements can be performed, e.g., using a 2-pole voltage tester (Item No. 206-707).

Marking



WMB markers or self-adhesive, printable marking strips can be accommodated on 35, 50 and 95 mm² high-current terminal blocks.



Marker carrier (Item No. 285-442) for marking strips (Item No. 2009-110) or 2 WMB markers for 285-13x, 285-15x and 285-19x Terminal Blocks