Data Sheet | Item Number: 222-413

Splicing connector with levers; for all conductor types; max. 4 mm²; 3-conductor; gray housing; Surrounding air temperature: max 40°C; 2,50 mm²; gray

https://www.wago.com/222-413

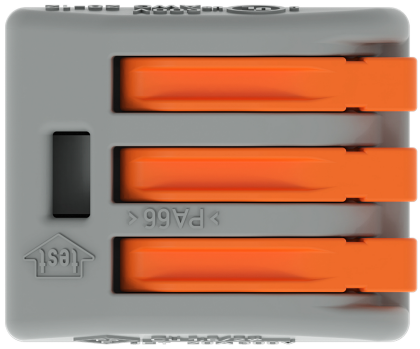


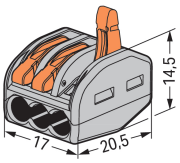


Color: gray









Dimensions in mm

Splicing connector with levers, 222 Series, CAGE CLAMP®

Effortless electrical installations are guaranteed with this splicing connector with levers (item number 222-413). From wiring intercom systems to installing electrical ovens, connecting different conductor types is quick and simple with WAGO's compact 222 Series splicing connector, which allows you to quickly and safely connect different types of conductors. Strip lengths must be between 9 and 10 mm when connecting conductors to this splicing connector with levers. This splicing connector has a rated voltage of 400 V and can handle currents up to 32 A, making it ideal for high-load applications. This product incorporates conductor terminals and utilizes CAGE CLAMP®. Our tried-and-tested universal connection known as CAGE CLAMP® is the industry standard when it comes to connection technology and electrical interconnections. Dimensions: (17 x 14.5 x 20.5) mm (width x height x depth). Depending on the conductor type, this splicing connector with levers is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

Proven and maintenance-free – the CAGE CLAMP® universal connection

WAGO's 221 Series Splicing Connector with levers impresses with its innovative design for different conductor cross-sections. That's why WAGO's lever-equipped splicing connector holds a unique trademark within electrical interconnection technology. The flat levers, which fit seamlessly into the 221's base, act like a cast when closed and can be positioned neatly in any housing without disturbing edges. Due to the wide design of each leaver, they can all be operated perfectly without tools for convenient conductor terminations. The transparent housing displays robust technology and enables immediate visual inspection for the correct contact of solid, stranded and fine-stranded conductors. Resembling piano keys, the levers' design perfectly combines the functional and aesthetic connection technology "Made by WAGO."

- Safe and fast installation
- Actuation via lever
- The right solution for every wiring task

Notes

General safety information	**NOTICE: Observe installation and safety instructions!** ▪ **Only to be used by electricians!** ▪ Do not work under voltage/load! ▪ Use only for proper use! ▪ Observe national regulations/standards/guidelines! ▪ Observe technical specifications for the products! ▪ Observe the number of permissible potentials! ▪ Do not use damaged/dirty components! ▪ Observe conductor types, cross-sections and strip lengths! ▪ Insert conductor until it hits the product's backstop! ▪ Use original accessories! **To be sold only with installation instructions!**
Safety information	in grounded power lines

Electrical data

Ratings per	EN 60664		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	-	-	400 V
Rated impulse withstand voltage	-	-	4 kV
Rated current	-	-	32 A

General information

Wiring direction	Side-entry wiring

Connection Data

Clamping units	3
Total number of potentials	1

Connection 1

Connection technology	CAGE CLAMP®
Actuation Method	Lever
Note (actuation)	Do not leave the 222 Series levers in the open position for extended periods. High spring forces may impair the ability to connect conductors at the maximum cross-section.
Connectable conductor materials	Copper Aluminum

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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 Aluminum Contact Paste 249-130 is used for termination. Aluminum 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 inserted into the clamping units filled with aluminum contact paste. It is also possible to apply WAGO Aluminum Contact Paste **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 mm² = 16 A 4 mm² = 22 A
Solid conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Stranded conductor	0.08 … 2.5 mm² / 28 … 12 AWG
Fine-stranded conductor	0.08 … 4 mm² / 28 … 12 AWG
Strip length	9 … 10 mm / 0.35 … 0.39 inches
Wiring direction	Side-entry wiring

Physical data

Width	17 mm / 0.669 inches
Height	14.5 mm / 0.571 inches
Depth	20.5 mm / 0.807 inches

Material data

Note (material data)	Information on material specifications can be found here
Color	gray
Flammability class per UL94	V0
Fire load	0.076 MJ
Actuator color	orange
Weight	4.3 g

Continued on next page

Environmental requirements

Ambient temperature (operation)	+40 °C
Ambient temperature (storage)	-40 … +60 °C
Relative humidity during storage and transportation	20 … 95 %
Ambient temperature (installation)	-35 … +60 °C
Continuous operating temperature	85 °C

Commercial data

Product Group	7 (Push Wire Conn.)
PU (SPU)	500 (50) pcs
Packaging type	Box
Country of origin	DE
GTIN	4017332955676
Customs tariff number	85369010000

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-14-11-04
eCl@ss 9.0	27-14-11-04
ETIM 9.0	EC000446
ETIM 10.0	EC000446
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
ENEC 15 UL International Demko A/S	EN 60998	ENEC-01360
UL UL International Germany GmbH	UL 486C	E69654
UL Underwriters Laboratories Inc.	UL 467	UL-US-L201573-112-72406002-6

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	23-2417173-PDA
LR Lloyds Register	EN 60998	LR2446364TA
PRS Polski Rejestr Statków	EN 60998	TE/1093/880590/23

Declarations of conformity and manufacturer's declarations

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

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 222-413

Documentation

Bid Text

222-413	19.02.2019	xml 3.37 KB
222-413	23.01.2019	docx 15.39 KB

CAD/CAE-Data

CAD data

2D/3D Models 222-413

CAE data

EPLAN Data Portal 222-413

WSCAD Universe 222-413

ZUKEN Portal 222-413

1 Compatible Products

1.1 Optional Accessories

1.1.1 Mounting adapter

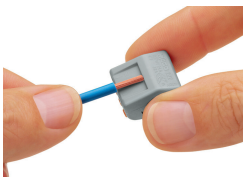
1.1.1.1 Mounting accessories



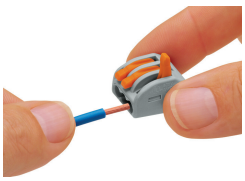
Item No.: 222-500
Mounting carrier; 222 Series; for DIN-35 rail mounting/screw mounting; orange

Installation Notes

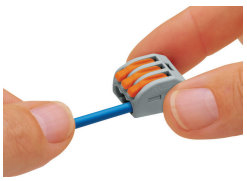
Conductor termination



Strip conductor to 9 … 10 mm (0.35 … 0.39 inch).



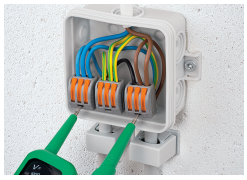
Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.

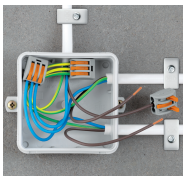
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Testing



Testing via Profi-LED+ voltage tester (206-806).

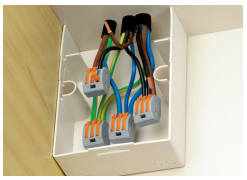
Application



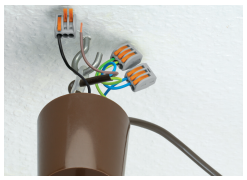
Wiring fine-stranded conductors in junction boxes.



Custom low-voltage lighting system



Connecting pre-wired and pre-fabricated components (e.g., in mobile homes).



Lighting fixture connection with fine-stranded wires and power feed



Compact, lever-operated splicing connectors:
They connect up to five stripped, fine-stranded conductors from 0.08 to 4 mm² (28 … 12 AWG), as well as solid or stranded conductors from up to 2.5 mm² (12 AWG) – without tools!

How they work:
Pull up one of the orange operating levers to open the clamping unit so that the lever engages and keeps the clamp in its opened position. Then insert the conductor and push the lever back down, flush with the connector housing.

Safety:
The lever's specially designed rest position reliably prevents accidental unclamping of a connected conductor. Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

ENEC is the European mark for electrical products that demonstrates compliance with European safety standards. The ENEC mark is subjected to the same EN standards as the VDE mark.

While the VDE mark is only permitted in Germany, the ENEC mark is accepted in more than 20 European countries.