

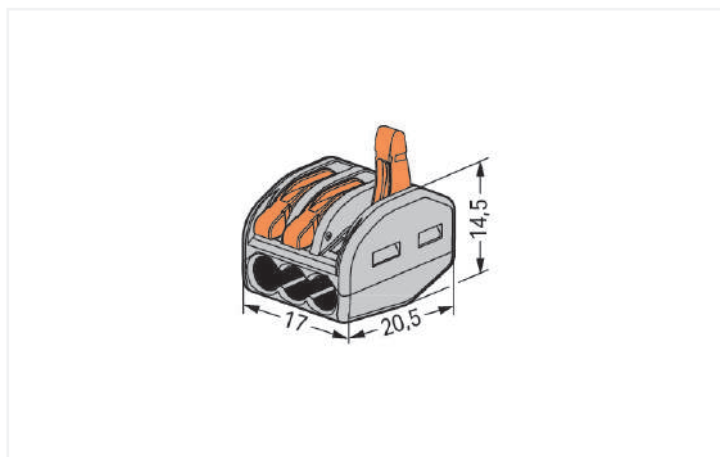
## Data Sheet | Item Number: 222-413

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

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



Color: ■ gray



Dimensions in mm

### Splicing connector with levers, 222 Series, lever

Splicing connector with levers (item number 222-413) simplifies electrical installations. 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. 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. Conductors can only be connected to splicing connector with levers if their strip length is between 9 mm and 10 mm. This product features conductor terminals and utilizes CAGE CLAMP®. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. Dimensions: 17 x 14.5 x 20.5 mm (width x height x depth). Splicing connector with levers is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.



| Notes                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General safety instructions | <b>NOTICE: Observe installation and safety instructions!</b> <ul style="list-style-type: none"><li>• <b>Only to be used by electricians!</b></li><li>• Do not work under voltage/load!</li><li>• Use only for proper use!</li><li>• Observe national regulations/standards/guidelines!</li><li>• Observe technical specifications for the products!</li><li>• Observe the number of permissible potentials!</li><li>• Do not use damaged/dirty components!</li><li>• Observe conductor types, cross-sections and strip lengths!</li><li>• Insert conductor until it hits the product's backstop!</li><li>• Use original accessories!</li></ul> <b>To be sold only with installation instructions!</b> |
| 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 surge voltage  | -        | -   | 4 kV  |
| Rated current        | -        | -   | 32 A  |

| Connection data                 |                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |
|---------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|----------------|-------|---------------------------------|--------------------|-----------------|----------------------------------|--------------------|----------------------------------|-------------------------|--------------------------------|--------------|------------------------------------|------------------|-------------------|
| Clamping units                  | 3                                  | <div>Connection 1</div> <table><tr><td>Connection technology</td><td>CAGE CLAMP®</td></tr><tr><td>Actuation type</td><td>Lever</td></tr><tr><td>Connectable conductor materials</td><td>Copper<br/>Aluminum</td></tr><tr><td>Solid conductor</td><td>0.08 ... 2.5 mm² / 28 ... 12 AWG</td></tr><tr><td>Stranded conductor</td><td>0.08 ... 2.5 mm² / 28 ... 12 AWG</td></tr><tr><td>Fine-stranded conductor</td><td>0.08 ... 4 mm² / 28 ... 12 AWG</td></tr><tr><td>Strip length</td><td>9 ... 10 mm / 0.35 ... 0.39 inches</td></tr><tr><td>Wiring direction</td><td>Side-entry wiring</td></tr></table> | Connection technology | CAGE CLAMP® | Actuation type | Lever | Connectable conductor materials | Copper<br>Aluminum | 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 |
| Connection technology           | CAGE CLAMP®                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |
| Actuation type                  | Lever                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |
| Connectable conductor materials | Copper<br>Aluminum                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |
| 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                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |
| Total number of potentials      | 1                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |             |                |       |                                 |                    |                 |                                  |                    |                                  |                         |                                |              |                                    |                  |                   |

| 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)        | <a href="#">Information on material specifications can be found here</a> |
| Color                       | gray                                                                     |
| Flammability class per UL94 | V0                                                                       |
| Fire load                   | 0.088 MJ                                                                 |
| Actuator color              | orange                                                                   |
| Weight                      | 4.3 g                                                                    |



| Environmental requirements       |        |
|----------------------------------|--------|
| Ambient temperature (operation)  | +40 °C |
| Continuous operating temperature | 85 °C  |

| Commercial data       |                     |
|-----------------------|---------------------|
| Product Group         | 7 (Push Wire Conn.) |
| eCl@ss 10.0           | 27-14-11-04         |
| eCl@ss 9.0            | 27-14-11-04         |
| ETIM 9.0              | EC000446            |
| ETIM 8.0              | EC000446            |
| PU (SPU)              | 500 (50) pcs        |
| Packaging type        | Box                 |
| Country of origin     | DE                  |
| GTIN                  | 4017332955676       |
| Customs tariff number | 85369010000         |

| Product classification |          |
|------------------------|----------|
| UNSPSC                 | 39121409 |

| Environmental Product Compliance |                         |
|----------------------------------|-------------------------|
| RoHS Compliance Status           | Compliant, No Exemption |

Approvals / Certificates

| General approvals                                                                                                                                                      |          |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|------------------------------------------------------------|----------|------------------|
|   |          |                  |                                                            |          |                  |
| Approval                                                                                                                                                               | Standard | Certificate Name | Approval                                                   | Standard | Certificate Name |
| ENEC 15<br>UL International Demko A/<br>S                                                                                                                              | EN 60998 | ENEC-01360       | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| UL_Listed_64KA<br>UL International Germany<br>GmbH                                                                                                                     | UL 467   | E201573          | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| UL<br>UL International Germany<br>GmbH                                                                                                                                 | UL 486C  | E69654           |                                                            |          |                  |

Approvals for marine applications

|    |          |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|
| Approval                                                                                                                                                                                                                                                   | Standard | Certificate Name |
| ABS<br>American Bureau of Ship-<br>ping                                                                                                                                                                                                                    | -        | 18-HG1755093-PDA |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd                                                                                                                                                                                                      | EN 60998 | TAE000015T       |
| LR<br>Lloyds Register                                                                                                                                                                                                                                      | EN 60998 | LR22207029TA     |



Downloads

Environmental Product Compliance

|                                          |  |  |  |
|------------------------------------------|--|--|--|
| Compliance Search                        |  |  |  |
| Environmental Product Compliance 222-413 |  |  |  |

Documentation

|          |            |                  |  |
|----------|------------|------------------|--|
| Bid Text |            |                  |  |
| 222-413  | 19.02.2019 | xml<br>3.37 KB   |  |
| 222-413  | 23.01.2019 | docx<br>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



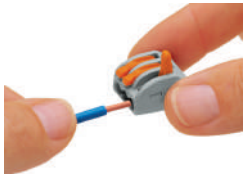
Item No.: [222-500](#)  
Mounting carrier; 222 Series; for DIN-35 rail mounting/screw mounting; orange

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.



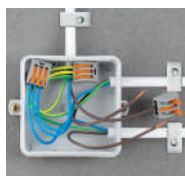
Then, lower the lever to close the clamp.

## Testing



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

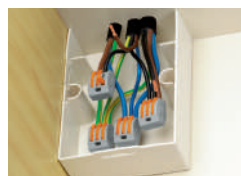
## Application



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 mm<sup>2</sup> (28 ... 12 AWG), as well as solid or stranded conductors from up to 2.5 mm<sup>2</sup> (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.