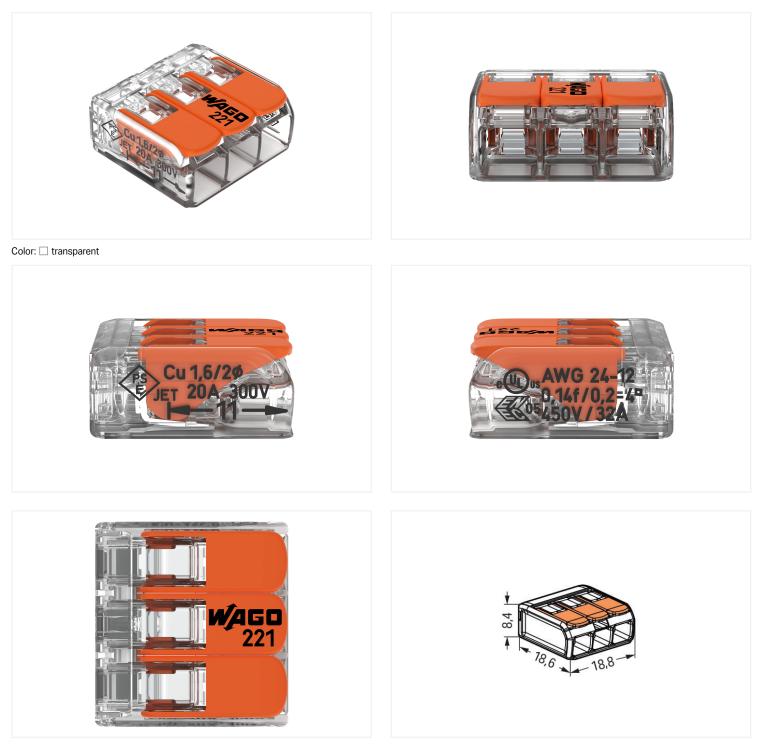
## Data Sheet | Item Number: 221-413 Splicing connector with levers; for all conductor types; max. 4 mm<sup>2</sup>; 3-conductor; with levers; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm<sup>2</sup>; transparent



https://www.wago.com/221-413



Dimensions in mm

https://www.wago.com/221-413

#### Your benefits:

N/AGO

- Ease of use pull the lever up, insert a conductor and push the lever back down
- Available as 2-, 3- and 5-wire connectors
- Easily terminate conductors from 0.14 to 4 mm<sup>2</sup>
- Connect solid, stranded and fine-stranded conductors
- Save time for installers and device manufacturers
- Quickly install devices with higher power consumption
- Safely install long cable runs with larger conductor cross sections
- Mounting carrier for installation conforms to standards
- Custom carriers are possible

#### Notes

Sicherheitshandhabungshinweis

#### Attention: Observe operating instructions, danger to life and limb!

#### · 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 in hits the product's backstop!
- Use original accessories!

#### To be sold only with installation instructions!

in grounded power lines

Safety information

## Electrical data

Connection data

Total number of potentials

| Ratings per          | EN 60664 |   |       |
|----------------------|----------|---|-------|
| Overvoltage category | Ш        | Ш | П     |
| Pollution degree     | 3        | 2 | 2     |
| Nominal voltage      | -        | - | 450 V |
| Rated surge voltage  | -        | - | 4 kV  |
| Rated current        | -        | - | 32 A  |

3 1

| Approvals per |   | UL 486C |   |
|---------------|---|---------|---|
| Use group     | В | С       | D |
| Rated voltage | - | 600 V   | - |
| Rated current | - | 20 A    | - |

| Connection 1                    |                        |
|---------------------------------|------------------------|
| Connection technology           | CAGE CLAMP®            |
| Actuation type                  | Lever                  |
| Connectable conductor materials | Copper                 |
| Nominal cross-section           | 4 mm² / 12 AWG         |
| Solid conductor                 | 0.2 4 mm² / 24 12 AWG  |
| Stranded conductor              | 0.2 4 mm² / 24 12 AWG  |
| Fine-stranded conductor         | 0.14 4 mm² / 24 12 AWG |
| Strip length                    | 11 mm / 0.43 inches    |
| Wiring direction                | Side-entry wiring      |

https://www.wago.com/221-413



| Physical data |                        |
|---------------|------------------------|
| Width         | 18.8 mm / 0.74 inches  |
| Height        | 8.4 mm / 0.331 inches  |
| Depth         | 18.8 mm / 0.732 inches |

| Material data               |  |
|-----------------------------|--|
| Note (material data)        |  |
|                             | Information on material specifications can be found here |
| Color                       | transparent  |
| Insulation material         | Polycarbonate (PC)                                       |
| Flammability class per UL94 | V2   |
| Fire load                   | 0.064 MJ   |
| Actuator color              | orange   |
| Weight                      | 2.5 g  |

| Environmental requirements       |        |
|----------------------------------|--------|
| Ambient temperature (operation)  | +85 ℃  |
| Continuous operating temperature | 105 °C |
| Temperature marking per EN 60998 | T85    |

| 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 8.0              | EC000446            |
| ETIM 7.0              | EC000446            |
| PU (SPU)              | 500 (50) pcs        |
| Packaging type        | Box                 |
| Country of origin     | DE                  |
| GTIN                  | 4050821808442       |
| Customs tariff number | 85369010000         |

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

## Approvals / Certificates

## General approvals

| CCA      | LISTED<br>WIRE CONNECTOR<br>6675 |    |
|----------|----------------------------------|----|
| Approval |                                  | C+ |

| <b>K</b> 05 |                 |
|-------------|-----------------|
|             | GROUNDING EQUIP |

| Approval   | Standard          | Certificate Name |
|--|-------------------|------------------|
| CCA<br>DEKRA Certification B.V.                        | EN 60998          | NTR NL-7990      |
| cULus_Listed_667F<br>Underwriters Laboratories<br>Inc. | UL 486C           | E69654           |
| ENEC 05<br>DEKRA Certification B.V.                    | EN 60669,EN 60998 | 71-127529        |
| UL_Listed_64KA<br>UL International Germany<br>GmbH     | UL 467            | E201573          |

## Declarations of conformity and manufacturer's declarations

| Approval  | Standard | Certificate Name |
|---|----------|------------------|
| EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | -        | -                |
| UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG |          |                  |

https://www.wago.com/221-413

## Approvals for marine applications





## Downloads

| <b>Environmental Product C</b> | ompliance |
|--------------------------------|-----------|
|--------------------------------|-----------|

| Compliance Search                           |              |
|---|--------------|
| Environmental Product<br>Compliance 221-413 | $\downarrow$ |

## Documentation

| Bid Text                   |            |                  |                          |
|----------------------------|------------|------------------|--------------------------|
| 221-413                    | 19.02.2019 | xml<br>3.43 KB   | $\underline{\checkmark}$ |
| 221-413                    | 23.01.2019 | docx<br>15.29 KB | $\downarrow$             |
| ausschreiben.de<br>221-413 |            |                  | $\downarrow$             |

## CAD/CAE-Data

| CAD data             |              |
|----------------------|--------------|
| 2D/3D Models 221-413 | $\downarrow$ |

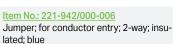
| CAE data                     |              |
|------------------------------|--------------|
| EPLAN Data Portal<br>221-413 | $\downarrow$ |
| ZUKEN Portal 221-413         | $\downarrow$ |

https://www.wago.com/221-413 **1** Compatible Products **1.1 Optional Accessories** 1.1.1 General accessories 1.1.1.1 Empty housings Item No.: 207-4301 Junction box; Branch; for multicore cables; 221 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; white 1.1.1.2 Moisture protection Item No.: 207-1331 Item No.: 207-1333 Gelbox; Branch; for cables; with gel; 221, Gelbox; Branch; for cables; with gel; 221, 2x73 Series; max. 4 mm<sup>2</sup> connectors; wi-2x73 Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; Size 1; gray thout splicing connectors; Size 3; gray



## 1.1.2.1 Jumper

Item No.: 221-941/000-006 Jumper; for conductor entry; 2-way; insulated: blue



1



Jumper; for conductor entry; 2-way; insulated; dark gray

Item No.: 221-942 Jumper; for conductor entry; 2-way; insulated; dark gray

1

#### 1.1.3 Mounting adapter

### 1.1.3.1 Mounting accessories

Item No.: 221-500/000-006 Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; blue



#### Item No.: 221-503

Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; for screw mounting; white



#### Item No.: 221-523

Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for vertical mounting; white

Item No.: 221-500/000-053 Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; dark gray-yellow



### Item No.: 221-513/000-004

Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snapin mounting foot for horizontal mounting; black

## Mounting carrier; 221 Series - 4 mm<sup>2</sup>; for

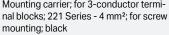
DIN-35 rail mounting/screw mounting; orange



Item No.: 221-500

Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snapin mounting foot for horizontal mounting; white

Item No.: 221-503/000-004 Mounting carrier; for 3-conductor termi-





#### Item No.: 221-523/000-004

Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snapin mounting foot for vertical mounting; black

https://www.wago.com/221-413



### Installation Notes

#### **Conductor termination**



Strip conductor to 11 mm (0.43 inch).



Pull up an orange lever to open the clamping unit.



Then insert the conductor and push the lever back down, flush with the connector housing.



Compact, lever-operated splicing connectors:

Tool-free connection of fine-stranded conductors from 0.14  $\ldots$  4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2  $\ldots$  4 mm<sup>2</sup> (24  $\ldots$  12 AWG).

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.

## Application







Lighting distribution in a ceiling canopy



Pendant light connection in a suspended ceiling

Wiring fine-stranded conductors in junction boxes. Custom low-voltage lighting system

\_\_\_\_\_

Current addresses can be found at:: <u>www.wago.com</u>

Subject to changes. Please also observe the further product documentation!