

## Data sheet | Item number: 221-413

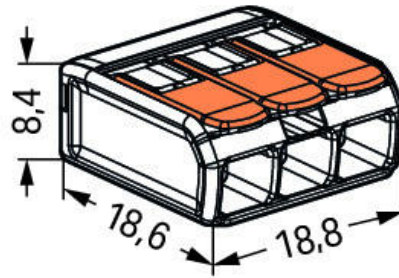
COMPACT Splicing Connector; for all conductor types; max. 4 mm<sup>2</sup>; 3-conductor; with levers; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm<sup>2</sup>; transparent

[www.wago.com/221-413](http://www.wago.com/221-413)



RoHS  
Compliant ✓

[BOMcheck.net](https://www.bomcheck.net)



## Item description

Your Benefits:

- 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
- Time savings for installers and device manufacturers
- Quickly install devices with higher levels of power consumption

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

WAGO Kontakttechnik GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

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- Safely install long cable runs with larger conductor cross sections
- Mounting carrier for installation conforms to standards
- Custom carriers are possible

**Safety information 1:**  
in grounded power lines

## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

Ratings per	EN 60664
Nominal voltage (II/2)	450 V
Rated surge voltage (II/2)	4 kV
Rated current	32 A
Legend (ratings)	(II / 2) $\triangleq$ Overvoltage category II / Pollution degree 2

#### Ratings per UL 1059

Approvals per	UL 486C
Rated voltage UL (Use Group C)	600 V
Rated current UL (Use Group C)	20 A

### Connection data

Connection technology	CAGE CLAMP®
Actuation type	Lever
Connectable conductor materials	Copper
Nominal cross-section	4 mm <sup>2</sup>
Solid conductor	0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Stranded conductor	0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor	0.14 ... 4 mm <sup>2</sup> / 24 ... 12 AWG
Strip length	11 mm / 0.43 inch
Total number of connection points	3
Total number of potentials	1
Wiring type	Side-entry wiring

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## Physical data

Width	18.7 mm / 0.736 inch
Height	8.3 mm / 0.327 inch
Depth	18.6 mm / 0.732 inch

## Material data

Color	transparent
Flammability class per UL94	V2
Color of actuator	orange
Weight	2.5 g

## Environmental requirements



Surrounding air temperature (operation)	85 °C
Continuous operating temperature	105 °C
Temperature marking per EN 60998	T85

## Commercial data

Product Group	7 (Push Wire Conn.)
Packaging type	BOX
Country of origin	DE
GTIN	4050821808442
Customs tariff number	85369010000

## Approvals / Certificates

### Country specific Approvals


Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 60998	NTR NL-7642
	CCA DEKRA Certification B.V.	EN 60998	71-101731

### Ship Approvals



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Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	18- HG1755093- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	EN 60998	TAE000015T
	<b>LR</b> Lloyds Register	EN 60998	04/20013 (E8)

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> Underwriters Laboratories Inc.	UL 467	E201573
	<b>UL</b> Underwriters Laboratories Inc.	UL 486C	E69654

### Compatible products










Jumper		
	<b>Item no.: 221-941</b> Jumper; for conductor entry; 2-way; insulated; dark gray	<a href="http://www.wago.com/221-941">www.wago.com/221-941</a>
	<b>Item no.: 221-941/000-006</b> Jumper; for conductor entry; 2-way; insulated; blue	<a href="http://www.wago.com/221-941/000-006">www.wago.com/221-941/000-006</a>
	<b>Item no.: 221-942</b> Jumper; for conductor entry; 2-way; insulated; dark gray	<a href="http://www.wago.com/221-942">www.wago.com/221-942</a>
	<b>Item no.: 221-942/000-006</b> Jumper; for conductor entry; 2-way; insulated; blue	<a href="http://www.wago.com/221-942/000-006">www.wago.com/221-942/000-006</a>

### Mounting adapter

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	<b>Item no.: 221-500</b> Mounting carrier; 221 Series - 4 mm <sup>2</sup> ; for DIN-35 rail mounting/screw mounting; orange	<a href="http://www.wago.com/221-500">www.wago.com/221-500</a>
	<b>Item no.: 221-500/000-006</b> Mounting carrier; 221 Series - 4 mm <sup>2</sup> ; for DIN-35 rail mounting/screw mounting; blue	<a href="http://www.wago.com/221-500/000-006">www.wago.com/221-500/000-006</a>
	<b>Item no.: 221-500/000-053</b> Mounting carrier; 221 Series - 4 mm <sup>2</sup> ; for DIN-35 rail mounting/screw mounting; dark gray-yellow	<a href="http://www.wago.com/221-500/000-053">www.wago.com/221-500/000-053</a>
	<b>Item no.: 221-503</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; for screw mounting; white	<a href="http://www.wago.com/221-503">www.wago.com/221-503</a>
	<b>Item no.: 221-503/000-004</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; for screw mounting; black	<a href="http://www.wago.com/221-503/000-004">www.wago.com/221-503/000-004</a>
	<b>Item no.: 221-513</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; with snap-in mounting foot for horizontal mounting; white	<a href="http://www.wago.com/221-513">www.wago.com/221-513</a>
	<b>Item no.: 221-513/000-004</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; with snap-in mounting foot for horizontal mounting; black	<a href="http://www.wago.com/221-513/000-004">www.wago.com/221-513/000-004</a>
	<b>Item no.: 221-523</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; with snap-in mounting foot for vertical mounting; white	<a href="http://www.wago.com/221-523">www.wago.com/221-523</a>
	<b>Item no.: 221-523/000-004</b> Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm <sup>2</sup> ; with snap-in mounting foot for vertical mounting; black	<a href="http://www.wago.com/221-523/000-004">www.wago.com/221-523/000-004</a>

## Downloads

### Documentation

#### Bid Text

221-413 X81 - Datei	Feb 19, 2019	xml 3.5 kB	Download
221-413 docx - Datei	Jan 23, 2019	docx 15.7 kB	Download

#### Additional Information

Technical explanations	Apr 3, 2019	pdf 2.2 MB	Download
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## CAD/CAE-Data

### CAE data

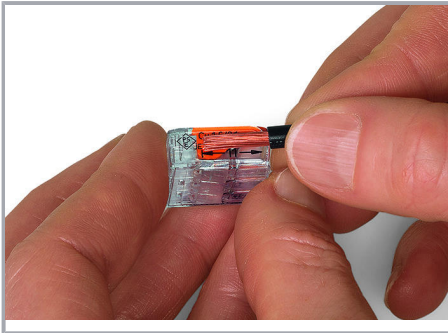
EPLAN Data Portal 221-413	<a href="#">URL</a>	<a href="#">Download</a>
ZUKEN Portal 221-413	<a href="#">URL</a>	<a href="#">Download</a>

### CAD data

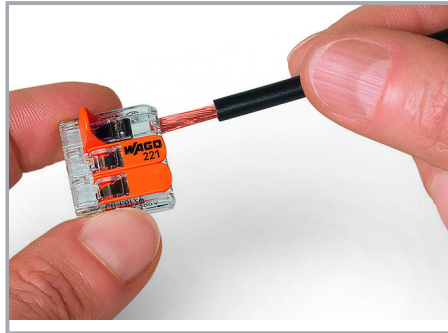
2D/3D Models 221-413	<a href="#">URL</a>	<a href="#">Download</a>
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## Installation Notes

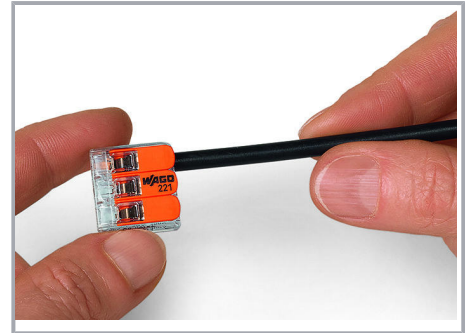
### Conductor termination



Strip conductor to 11 mm (0.43 inch).

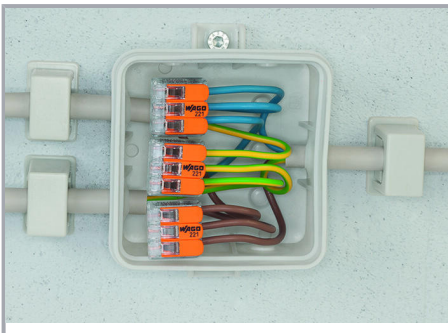


Termination: Lift the lever to open the clamping unit and insert a stripped conductor.

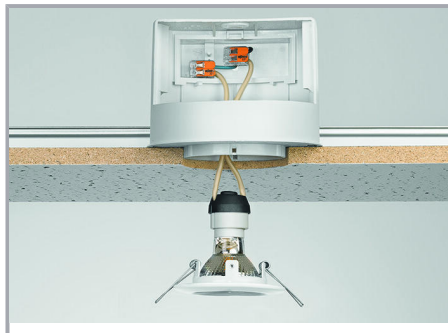


Then, lower the lever to close the clamp.

### Application



Wiring fine-stranded conductors in a junction box.



Custom low-voltage lighting system

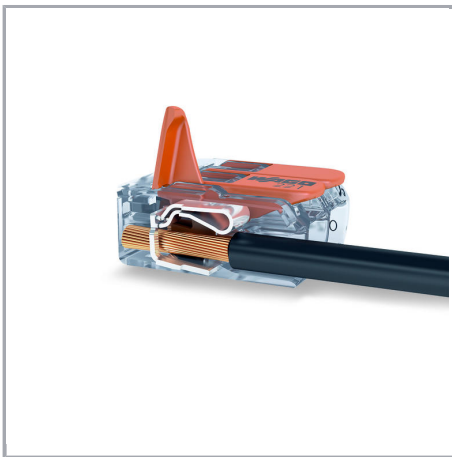


Lighting distribution in ceiling canopy

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



Pendant light connection in suspended ceilings



COMPACT Splicing Connectors for All Conductor Types, 4 mm<sup>2</sup> (12 AWG), 221 Series

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



**Compact, lever-operated splicing connectors:**

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

**How these work:**

Pull up one of the orange operating levers to open the clamping unit. Then insert the conductor and push the lever back down, flush with the connector housing.

**Safety:**

The specially designed rest position of the lever 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.

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