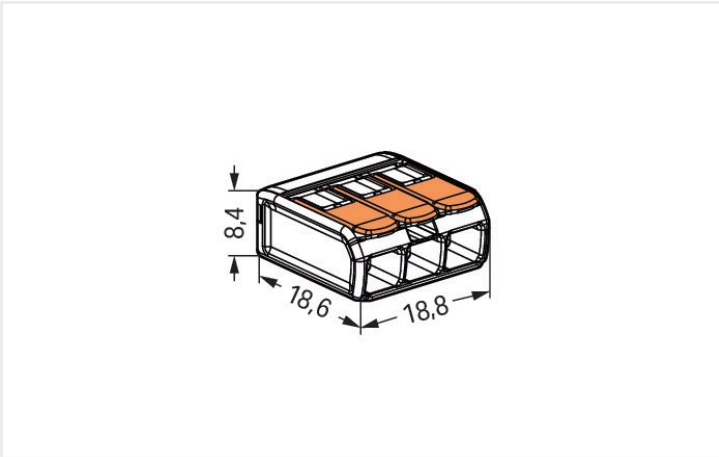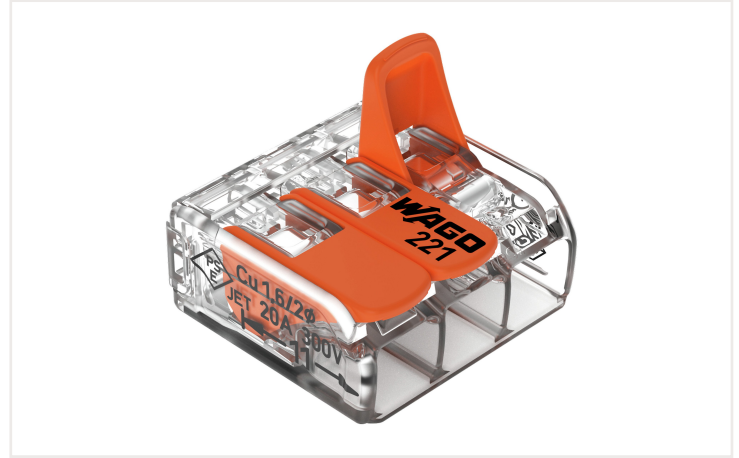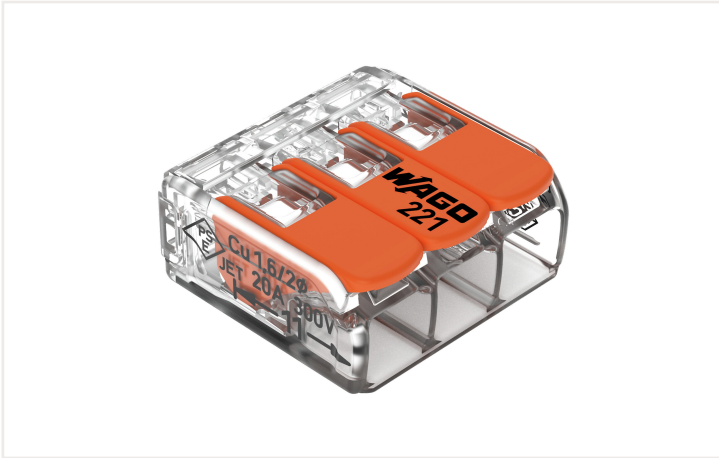# Data sheet | Item number: 221-413

COMPACT Splicing Connector; for all conductor types; max. 4 mm²; 3-conductor; with levers; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm²; transparent

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

Dimensions in mm

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 mm²
* 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

Safety information 1	in grounded power lines

Electrical data

Ratings per IEC/EN

Ratings per	EN 60664
Nominal voltage (II/2)	450 V
Rated surge voltage (II/2)	4 kV
Rated current	32 A

Ratings per IEC/EN

Legend (ratings)	(II / 2) ≙ Overvoltage category II / Pollution degree 2

Ratings per UL

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

Connection data

Total number of connection points	3
Total number of potentials	1

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
Abisolierlänge	11 mm / 0.43 inches
Wiring direction	Side-entry wiring

Physical data

Width	18.8 mm / 0.74 inches
Height	8.6 mm / 0.327 inches
Depth	18.8 mm / 0.732 inches

Material data

Note (material data)	Information on material data can be found here
Color	transparent
Insulation material	Polycarbonate (PC)
Flammability class per UL94	V2
Fire load	0.056 MJ
Actuator color	orange
Weight	2.5 g

Environmental requirements

Ambient temperature (operation)	+85 °C
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) Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4050821808442
Customs tariff number VKOrg Germany	85369010000

Approvals and certificates

General approvals

Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 60998	NTR NL-7827
UL_Listed_64KA UL International Germany GmbH	UL 467	E201573
UL UL International Germany GmbH	UL 486C	E69654

Approvals for marine applications

Approval	Standard	Certificate name
ABS American Bureau of Shipping	-	18-HG1755093-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	EN 60998	TAE000015T
LR Lloyds Register	EN 60998	LR22207029TA

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 221-413	↓

Documentation

Additional Information

Technical Section	pdf 2142.18 KB	↓

Bid Text

221-413	19.02.2019	xml 3.43 KB	↓
221-413	23.01.2019	docx 15.29 KB	↓
ausschreiben.de 221-413			↓

CAD/CAE-Data

CAD data

2D/3D Models 221-413	↓

CAE data

EPLAN Data Portal 221-413	↓
ZUKEN Portal 221-413	↓

WAGO

1 Compatible products

1.1 Optional accessories

1.1.1 General accessories

1.1.1.1 Empty housings

Item no.: 207-4301
Junction box; for multicore cables; Branch; 221 Series; max. 4 mm² connectors; without splicing connectors; white

1.1.1.2 Moisture protection

Item no.: 207-1331
Gelbox; for cables; Branch; with gel; 221, 2x73 Series; max. 4 mm² connectors; without splicing connectors; Size 1; gray

Item no.: 207-1333
Gelbox; for cables; Branch; with gel; 221, 2x73 Series; max. 4 mm² connectors; without splicing connectors; Size 3; gray

1.1.2 Jumper

1.1.2.1 Jumper

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

Item no.: 221-942/000-006
Jumper; for conductor entry; 2-way; insulated; blue

Item no.: 221-941
Jumper; for conductor entry; 2-way; insulated; dark gray

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

1.1.3 Mounting adapter

1.1.3.1 Mounting accessories

Item no.: 221-500/000-006
Mounting carrier; 221 Series - 4 mm²; for DIN-35 rail mounting/screw mounting; blue

Item no.: 221-500/000-053
Mounting carrier; 221 Series - 4 mm²; for DIN-35 rail mounting/screw mounting; dark gray-yellow

Item no.: 221-500
Mounting carrier; 221 Series - 4 mm²; for DIN-35 rail mounting/screw mounting; orange

Item no.: 221-503/000-004
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; for screw mounting; black

Item no.: 221-503
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; for screw mounting; white

Item no.: 221-513/000-004
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for horizontal mounting; black
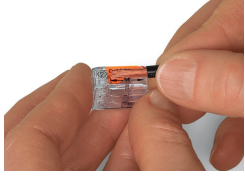
Item no.: 221-513
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for horizontal mounting; white

Item no.: 221-523/000-004
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for vertical mounting; black
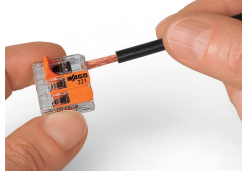
Item no.: 221-523
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for vertical mounting; white
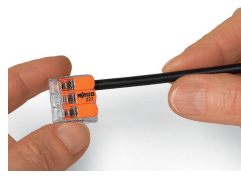
Installation notes

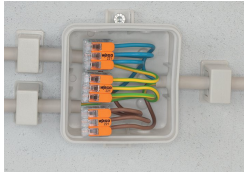## Conductor termination

Strip conductor to 11 mm (0.43 inch).

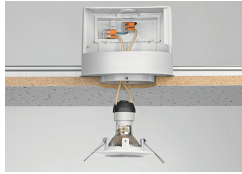Termination: Lift the lever to open the clamping unit and insert a stripped conductor.

Then, lower the lever to close the clamp.

Application

Wiring fine-stranded conductors in junction boxes.

Custom low-voltage lighting system

Lighting distribution in a ceiling canopy

Pendant light connection in a suspended ceiling

COMPACT Splicing Connectors for All Conductor Types (4 mm²), 221 Series

Compact, lever-operated splicing connectors:
Tool-free connection of up to five stripped, fine-stranded conductors from 0.14 … 4 mm², as well as solid or stranded conductors from 0.2 … 4 mm² (24 … 12 AWG).

How they work:
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.

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.