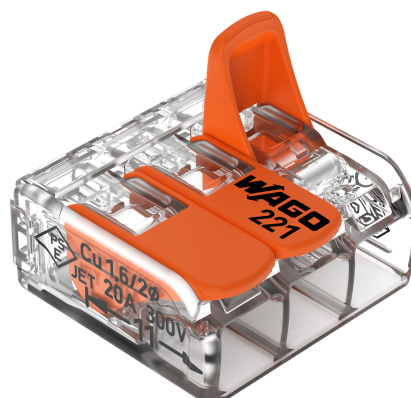
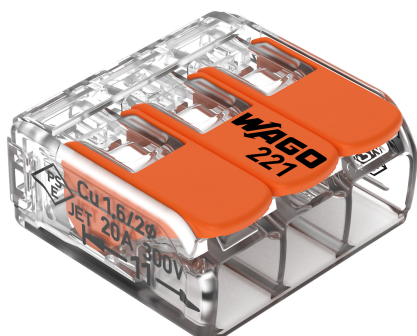


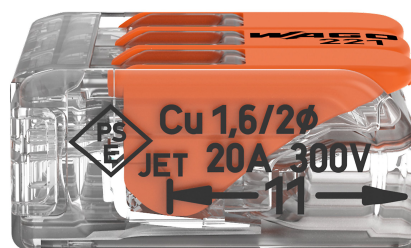
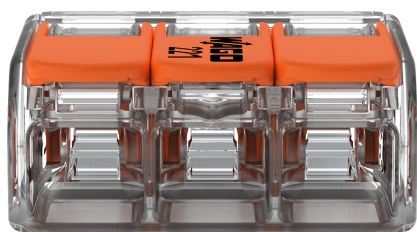
Data Sheet | Item Number: 221-413

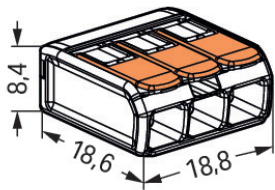
Splicing connector with levers; for all conductor types; max. 4 mm²; 3-conductor; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm²; transparent

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



Color: ☐ transparent





Dimensions in mm

Splicing connector with levers, 221 Series, CAGE CLAMP®

Our splicing connector with levers (item number 221-413) simplifies electrical installations. From intercom system wiring to electric ovens—connecting different conductor types is quick and easy with WAGO's practical 221 Series splicing connector. Conductors should only be connected to splicing connector with levers if their strip length is 11 mm . Rated current and voltage are important parameters when choosing a splicing connector, as they determine the product's suitability for different applications. This product has a rated voltage of 450 V and a rated current of 32 A, making it suitable for high-load applications. This product features conductor terminals and utilizes CAGE CLAMP®. Our reliable 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. The item's dimensions are (18.8 x 8.4 x 18.6) mm (width x height x depth). Splicing connector with levers is suitable for conductor cross sections ranging from 0.2 mm² to 4 mm².

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 lever, 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." This product is designed for specific Ex applications (please refer to the product datasheet).

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!

in grounded power lines

Electrical data							
Ratings per		EN 60664			Approvals per		UL 486C
Overvoltage category	III	III	II		Use group	B	C D
Pollution degree	3	2	2		Rated voltage	-	600 V -
Nominal voltage	-	-	450 V		Rated current	-	20 A -
Rated impulse withstand voltage	-	-	4 kV				
Rated current	-	-	32 A				



General information	
Wiring direction	Side-entry wiring

Connection Data																				
Clamping units	3	Connection 1 <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</td></tr><tr><td>Nominal cross-section</td><td>4 mm² / 12 AWG</td></tr><tr><td>Solid conductor</td><td>0.2 ... 4 mm² / 24 ... 12 AWG</td></tr><tr><td>Stranded conductor</td><td>0.2 ... 4 mm² / 24 ... 12 AWG</td></tr><tr><td>Fine-stranded conductor</td><td>0.14 ... 4 mm² / 24 ... 12 AWG</td></tr><tr><td>Strip length</td><td>11 mm / 0.43 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	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
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																			
Total number of potentials	1																			

Physical data	
Width	18.8 mm / 0.74 inches
Height	8.4 mm / 0.331 inches
Depth	18.6 mm / 0.732 inches

Material data	
Note (material data)	Information on material specifications can be found here
Color	transparent
Material group	IIIa
Insulation material (main housing)	Polycarbonate (PC)
Flammability class per UL94	V2
Fire load	0.047 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.)
PU (SPU)	500 (50) pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821808442
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
CCA DEKRA Certification B.V.	EN 60998	NTR NL-7990
cULus_Listed_667F Underwriters Laboratories Inc.	UL 486C	E69654
ENEC 05 DEKRA Certification B.V.	EN 60998	71-152284
UL Underwriters Laboratories Inc.	UL 467	E201573

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	-	-

Approvals for marine applications														
 <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>ABS American Bureau of Shipping</td><td>EN 60998</td><td>23-2417173-PDA</td></tr><tr><td>LR Lloyds Register</td><td>EN 60998</td><td>LR2446364TA</td></tr><tr><td>PRS Polski Rejestr Statków</td><td>EN 60998</td><td>TE/1093/880590/23</td></tr></table>	Approval	Standard	Certificate Name	ABS American Bureau of Shipping	EN 60998	23-2417173-PDA	LR Lloyds Register	EN 60998	LR2446364TA	PRS Polski Rejestr Statków	EN 60998	TE/1093/880590/23		
Approval	Standard	Certificate Name												
ABS American Bureau of Shipping	EN 60998	23-2417173-PDA												
LR Lloyds Register	EN 60998	LR2446364TA												
PRS Polski Rejestr Statków	EN 60998	TE/1093/880590/23												



Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 221-413			↓

Documentation

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	↓

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 mm² connectors; without
splicing connectors; white

1.1.1.2 Moisture protection



Item No.: 207-1331
Gelbox; Branch; for cables; with gel; 221,
2x73 Series; max. 4 mm² connectors; with-
out splicing connectors; Size 1; gray



Item No.: 207-1333
Gelbox; Branch; for cables; with gel; 221,
2x73 Series; max. 4 mm² connectors; with-
out 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



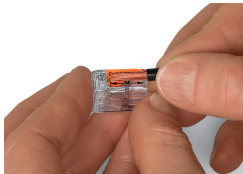
Item No.: 221-523/000-004
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for vertical mounting; black



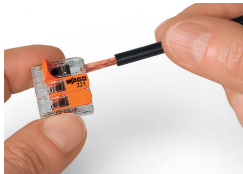
Item No.: 221-523
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm²; with snap-in mounting foot for vertical mounting; white

Installation Notes

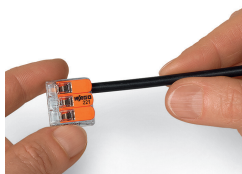
Conductor termination



Strip conductor to 11 mm (0.43 inch).



Pull up an orange lever to open the clamping unit.

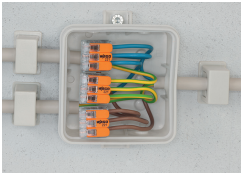


Then insert the conductor and push the lever back down, flush with the connector housing.



Compact, lever-operated splicing connectors:
Tool-free connection of fine-stranded conductors from 0.14 ... 4 mm², as well as solid or stranded conductors from 0.2 ... 4 mm² (24 ... 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



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