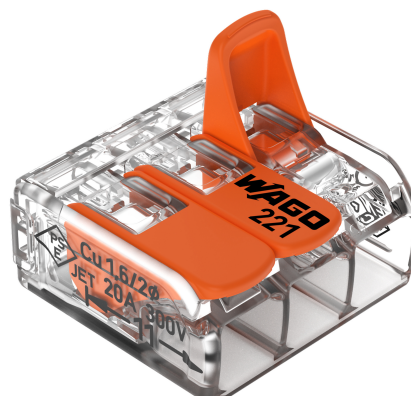
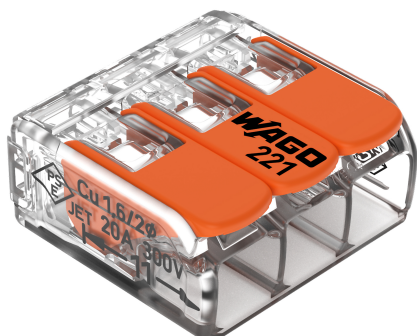


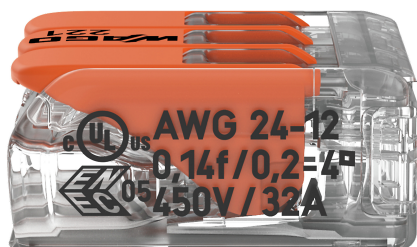
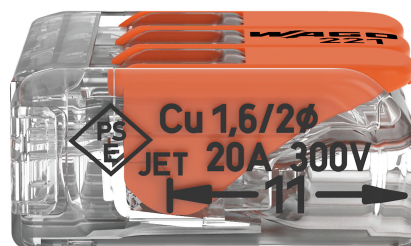
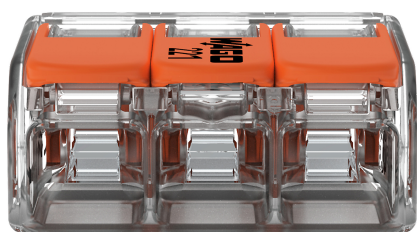
## Data Sheet | Item Number: 221-413

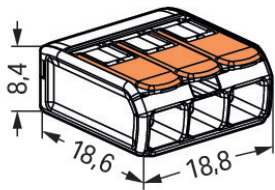
Splicing connector with levers; for all conductor types; max. 4 mm<sup>2</sup>; 3-conductor; transparent housing; Surrounding air temperature: max 85°C (T85); 4,00 mm<sup>2</sup>; transparent

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



Color: ☐ transparent





Dimensions in mm

Splicing connector with levers, 221 Series, lever

Splicing connector with levers (item number 221-413) is designed for hassle-free electrical installations. From wiring intercom systems to installing electrical ovens, connecting different conductor types is quick and simple with WAGO's compact 221 Series splicing connector, which allows you to quickly and safely connect different types of conductors. Ensure that the strip lengths are 11 mm when connecting conductors to splicing connector with levers. This splicing connector has a rated voltage of 450 V and can handle currents up to 32 A, making it ideal for high-load applications. This product features conductor terminals and utilizes CAGE CLAMP®. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (18.8 x 8.4 x 18.6) mm (width x height x depth). Depending on the type of conductor, splicing connector with levers is designed 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					



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</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)	<a href="#">Information on material specifications can be found here</a>	
Color	transparent	
Material group	IIIa	
Insulation material (main housing)	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 °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			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL-7990	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cULus_Listed_667F Underwriters Laboratories Inc.	UL 486C	E69654	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
ENEC 05 DEKRA Certification B.V.	EN 60669, EN 60998	71-152248			
UL_Listed_64KA UL International Germany GmbH	UL 467	E201573			

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	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	
<div>CAD data</div> <div>2D/3D Models 221-413</div> <div>↓</div>	<div>CAE data</div> <div>EPLAN Data Portal 221-413</div> <div>↓</div>
	<div>ZUKEN Portal 221-413</div> <div>↓</div>

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
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[Item No.: 207-1331](#)  
Gelbox; Branch; for cables; with gel; 221, 2x73 Series; max. 4 mm² connectors; without splicing connectors; Size 1; gray



[Item No.: 207-1333](#)  
Gelbox; Branch; for cables; 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

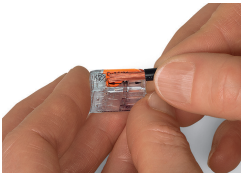
1.1.3.1 Mounting accessories



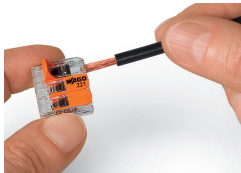
**Item No.: 221-523**  
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for vertical mounting; white

Installation Notes

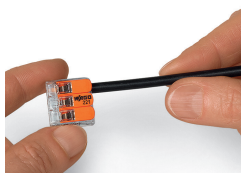
Conductor termination



Strip conductor to 11 mm (0.43 inch).



Pull up an orange lever to open the clamping unit.

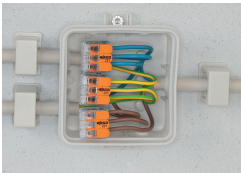


Then insert the conductor and push the lever back down, flush with the connector housing.

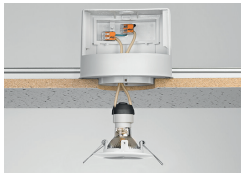


**Compact, lever-operated splicing connectors:**  
Tool-free connection of fine-stranded conductors from 0.14 ... 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 ... 4 mm<sup>2</sup> (24 ... 12 AWG).  
**Safety:**  
The lever's specially designed rest position reliably prevents accidental 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