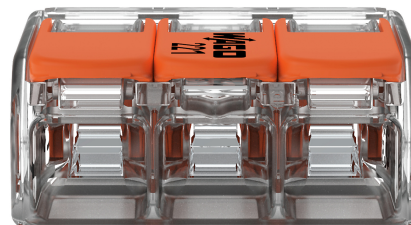
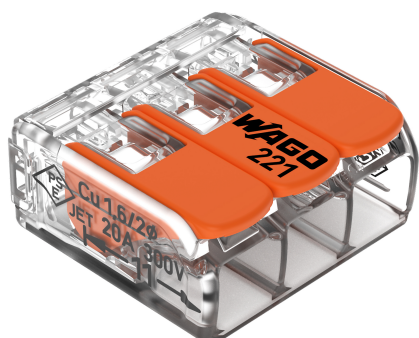


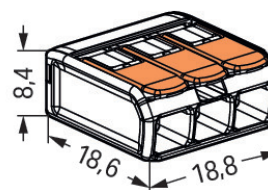
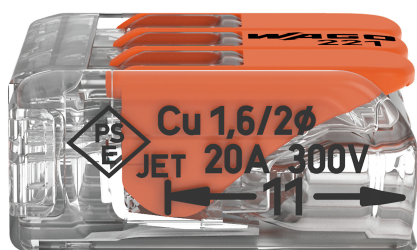
## Data Sheet | Item Number: 221-413

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>; trans-  
parent

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



Color: ☐ transparent



Dimensions in mm



Splicing connector with levers, 221 Series, lever

Enjoy easy electrical installations with splicing connector with levers (item number 221-413). From intercom system wiring to electric ovens—connecting different conductor types is quick and hassle-free with WAGO's compact 221 Series splicing connector. Our splicing connector is rated for 450 V and is designed to handle a rated current of up to 32 A. It is therefore suitable for high-load applications. Ensure that the strip lengths are 11 mm when connecting conductors to splicing connector with levers. This product features conductor terminals and utilizes CAGE CLAMP®. Our reliable 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. Dimensions: 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 instructions		<b>NOTICE: Observe installation and safety instructions!</b>	
		<ul style="list-style-type: none"><li>• <b>Only to be used by electricians!</b></li><li>• Do not work under voltage/load!</li><li>• Use only for proper use!</li><li>• Observe national regulations/standards/guidelines!</li><li>• Observe technical specifications for the products!</li><li>• Observe the number of permissible potentials!</li><li>• Do not use damaged/dirty components!</li><li>• Observe conductor types, cross-sections and strip lengths!</li><li>• Insert conductor until it hits the product's backstop!</li><li>• Use original accessories!</li></ul>	
Safety Information		<b>To be sold only with installation instructions!</b> 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 surge voltage		-	-	4 kV			
Rated current		-	-	32 A			

Connection data			
Clamping units	3	<b>Connection 1</b>	
Total number of potentials	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



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 8.0		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 60669,EN 60998	71-152248
UL_Listed_64KA UL International Germany GmbH	UL 467	E201573

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	18-HG1755093-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	EN 60998	TAE000015T
LR Lloyds Register	EN 60998	LR22207029TA

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 221-413	
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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

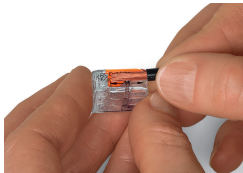
1.1.3.1 Mounting accessories



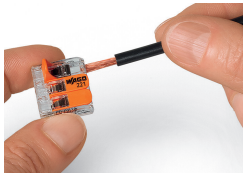
Item No.: 221-523  
Mounting carrier; for 3-conductor terminal blocks; 221 Series - 4 mm<sup>2</sup>; with snap-in mounting foot for vertical mounting; white

Installation Notes

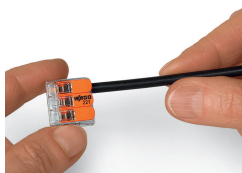
Conductor termination



Strip conductor to 11 mm (0.43 inch).



Pull up an orange lever to open the clamping unit.

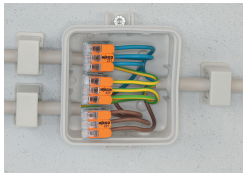


Then insert the conductor and push the lever back down, flush with the connector housing.

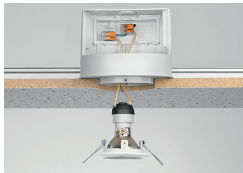


**Compact, lever-operated splicing connectors:**  
Tool-free connection of fine-stranded conductors from 0.14 ... 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 ... 4 mm<sup>2</sup> (24 ... 12 AWG).  
**Safety:**  
The lever's specially designed rest position reliably prevents accidental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