

# WAGO 221-413 3 Way Splicing Connector with Lever Lock Instructions

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WAGO 221-413 3 Way Splicing Connector with Lever Lock



# **Product Information**

# **Specifications**

· Color: Transparent

• Dimensions: 18.8mm (W) x 8.4mm (H) x 18.6mm (D)

• Material: Polycarbonate (PC)

• Insulation Material: Polycarbonate (PC)

• Flammability Class: V2

Rated Voltage: 450V (EN 60664), 600V (UL 486C)
Rated Current: 32A (EN 60664), 20A (UL 486C)

# **Product Usage Instructions**

# **Safety Information**

Ensure to observe installation and safety instructions provided with the product. This product should only be used in grounded power lines.

#### **Electrical Data**

This product is rated for a nominal voltage of 450V, a rated surge voltage of 4kV, and a rated current of 32A (EN 60664). For UL standards, the rated current is 20A.

# **Connection Data**

This product features 3 clamping units, with a total number of potentials of 1. It supports various conductor materials and nominal cross-sections. Ensure to follow the specified wiring directions.

# **Environmental Requirements**

The product operates within specified ambient temperature ranges and complies with environmental standards per EN 60998. Refer to the provided temperature marking for details.

# **Product Group & Compliance**

This product belongs to Product Group 7 (Push Wire Conn.) and complies with eCl@ss, ETIM, and other standards. It is RoHS compliant.

- Q: What are the dimensions of the product?
  - A: The product dimensions are 18.8mm (W) x 8.4mm (H) x 18.6mm (D).
- Q: What is the maximum rated current for this product?
  - A: The maximum rated current is 32A per EN 60664 and 20A per UL 486C.

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 <a href="https://www.wago.com/221-413">https://www.wago.com/221-413</a>

# 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
- · 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 management note

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!

#### **Safety Information**

in grounded power lines

Electrical data							
Ratings per		EN 60664		Approvals per		UL 486C	
Overvoltage categor y	III	III	II	Use group	В	С	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
Total number of potentials 1.

# **Connection 1**

- Connection technology CAGE CLAMP®
- · Actuation type Lever
- · Connectable conductor materials Copper
- Nominal cross-section 4 mm<sup>2</sup> / 12 AWG
- 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 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)
   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 0.064 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.)
- eCl@ss 10.0 27-14-11-04
- eCl@ss 9.0 27-14-11-04
- ETIM 9.0 EC000446
- ETIM 8.0 EC000446
- PU (SPU) 500 (50) pcs
- · Packaging type Box
- · Country of origin DE
- GTIN 4050821808442
- Customs tariff number 85369010000

# **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	71-127529
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





# **Documentation**

Documentati on			
Bid Text			
221-413	19.02.2019	XML 3.43 KB	<u> </u>
221-413	23.01.2019	docx 15.29 KB	<u></u>
ausschreiben	.de 221-413		<u></u>

CAD/CAE-Data		
CAD data	CAE data	
2D/3D Models 221-413	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 mm<sup>2</sup> connectors; without splicing connectors; white



# **Moisture protection**

Item No.: 207-1331

Gelbox; Branch; for cables; with gel; 221,  $2 \times 73$  Series; max. 4 mm<sup>2</sup> connectors; without splicing connectors; Size 1; gray



Item No.: 207-1333

Gelbox; Branch; for cables; with gel; 221, 2×73 Series; max. 4 mm² connectors; without splicing connectors; Size 3; gray



# **Jumper**

# <u>Item No.: 221-941/000-</u> 006

Jumper; for conductor ent ry; 2-way; insu lated; blue



# <u>Item No.: 221-942/000-</u> 006

Jumper; for conductor ent ry; 2-way; insu lated; blue



# Item No.: 221-941

Jumper; for conductor ent ry; 2-way; insu lated; dark gray



# Item No.: 221-942

Jumper; for conductor ent ry; 2-way; insu lated; dark gray



# **Mounting adapter**

# **Mounting accessories**

<u>Item No.: 221-500/000-</u> 006	<u>Item No.: 221-500/000-</u> <u>053</u>	<u>Item No.: 221-500</u>	<u>Item No.: 221-503/000-00</u> <u>4</u>
Mounting carrier; 221 Seri es – 4 mm²; for	Mounting carrier; 221 Seri es – 4 mm <sup>2</sup> ; for	Mounting carrier; 221 Seri es – 4 mm <sup>2</sup> ; for	Mounting carrier; for 3- conductor termi
DIN-35 rail mounting/scre w mounting;	DIN-35 rail mounting/scre w mounting;	DIN-35 rail mounting/scre w mounting;	nal blocks; 221 Series – 4 mm²; for screw
blue	dark gray-yellow	orange	mounting; black



# Item No.: 221-503

Mounting carrier; for 3-co nductor termi nal blocks; 2 21 Series – 4 mm<sup>2</sup>; for scr ew mounting; white



# <u>Item No.: 221-513/000-</u> 004

Mounting carrier; for 3-co nductor termi nal blocks; 2 21 Series – 4 mm²; with s nap- in mounting foot for horizontal mounting; black



# Item No.: 221-513

Mounting carrier; for 3conductor termi nal blocks ; 221 Series – 4 mm<sup>2</sup>; with snap- in mounting foot for horizontal mounting; white



# <u>Item No.: 221-523/000-00</u> <u>4</u>

Mounting carrier; for 3conductor termi nal 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 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 clam ping unit.



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



Tool-free connection of fin e-stranded conductors fro m 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 con ductor (solid, stranded, fine-stranded), i s confirmed by approvals I ike 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









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

Current addresses can be found at: www.wago.com

Version 28.09.2024

# **Documents / Resources**



<u>WAGO 221-413 3 Way Splicing Connector with Lever Lock</u> [pdf] Instructions 221-413 3 Way Splicing Connector with Lever Lock, 221-413, 3 Way Splicing Connector with Lever Lock, Splicing Connector with Lever Lock, Connector with Lever Lock, Lock

# References

#### User Manual

#### Manuals+, Privacy Policy

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