

### 221 Series LEVER-NUTS®

The Next Generation of Compact Splicing Connectors



## **221 SERIES** *LEVER-NUTS*<sup>®</sup> Compact Splicing Connectors for All Wire Types



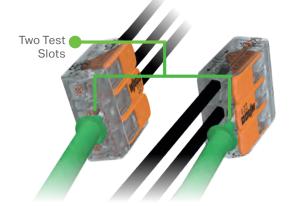
Setting new standards in electrical installation, the 221 Series *LEVER-NUTS®* splicing connector is now smaller, more user-friendly and made for larger conductors.

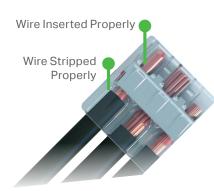
- Connect any combination of solid, stranded and flexible copper wires faster and more reliably
- Equipped with two test slots: one on the front and one on the back for maximum convenience
- Visually inspect for proper strip length and complete wire insertion through its transparent housing
- Operate comfortably with lower operating forces by using familiar orange levers

#### Nominal current: 20 A (30 A 10 AWG)

- Rated voltage: 600 V (1000 V signs & fixtures)
- Operating temperature: 105 °C
- cULus LISTED splicing wire connector file #E69654







Easily combine various types and sizes of wires: solid, stranded and flexible

- 12 AWG family:
  24 12 AWG
- 10 AWG family:
  20 10 AWG

## 221 Series for 12 AWG

	operating temp 0.43 in / 11 mm		°C operating temp 📨 0.43 in / 11 mm		operating temp 0.43 in / 11 mm
2-conductor connector, with levers		3-conductor connector, with levers		5-conductor connector, with levers	
				29.9	
Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs
221-412	1=box of 100	221-413	1=box of 50	221-415	1=box of 25
221-412/VE00-2500	2500 (bulk)	221-413/VE00-2500	2500 (bulk)	221-415/VE00-1000	1000 (bulk)
221-412/996-010	1=10 (clamshell)	221-413/996-010	1=10 (clamshell)	221-415/996-010	1=10 (clamshell)
221-412/K194-4045/000-100	1=jug of 550	221-413/K194-4045/000-1	00 1=jug of 350	221-415/K194-4045/000-100	1=jug of 225

### 221 Series for 10 AWG

- Same design and handling as the original 221, but for larger conductors (10 AWG) and greater current capacity (30 A)
- Universal connection technology for ALL copper conductor types sized 20 – 10 AWG
- Proven and familiar lever technology



	°C operating temp 20.43 in / 11 mm		105 °C operating temp 2014 in / 11 mm		5 °C operating temp 2004 in / 11 mm
2-conductor connector, with levers		3-conductor connector, with levers		5-conductor connector, with levers	
		POLY AND 22.9			
Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs
221-612	1=box of 50	221-613	1=box of 30	221-615	1=box of 15
221-612/VE00-1000	1000 (bulk)	221-613/VE00-1000	1000 (bulk)	221-615 / VE00-500	500 (bulk)

# **MOUNTING ACCESSORIES**

Expand installation flexibility by coupling the easy-to-use 221 Series *LEVER-NUTS®* with these mounting accesssories. The mounting carrier converts the compact splicing connector into a DIN rail or chassis mount terminal block solution.

- Mounting flexibility: horizontal or vertical, snap to DIN rail or screw mount to flat panel
- Open face design: allows access for wiring and testing even after the connector is mounted into the carrier
- Easy wire management: multiple cable tie locations; two marking surfaces; built-in spacing fingers for visual separation of potentials

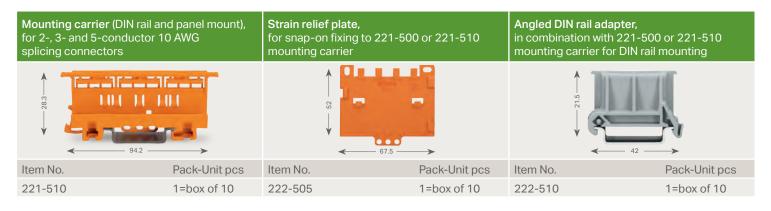


### Accessories for 12 AWG Family

<b>Mounting carrier</b> (DIN rail and panel mount), for 2-, 3- and 5-conductor compact splicing connectors		<b>Strain relief plate</b> , for snap-on fixing to 221-500 or 221-510 mounting carrier		Angled DIN rail adapter, in combination with 221-500 or 221-510 mounting carrier for DIN rail mounting	
					Å
Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs
221-500	1=box of 10	222-505	1=box of 10	222-510	1=box of 10

Mounting carrier (Panel mount), for single 2-conductor connector			er (Panel mount), iductor connector	<b>Mounting carrier</b> (Panel mount), for single 5-conductor connector	
	i c	R.		Q	
Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs
221-502	1=box of 10	221-503	1=box of 10	221-505	1=box of 10

## Accessories for 10 AWG Family



# **HANDLING & MOUNTING**

### Handling:



Insert connectors into the mounting carrier



Access to levers when mounted; wiring possible before and/or after inserting connectors into the carrier



Removing connector from the mounting carrier



Mounting of strain relief plate (222-505) to the mounting carrier



Snapping the angled DIN rail adapter on the mounting carrier



Testing connectors via their front test slots, which remain accessible when mounted



Inserting a conductor into the single mounting carrier



Removing a conductor from the single mounting carrier

### **Mounting Options:**



Vertical mounting on DIN rail with wire ties providing strain relief



Vertical mounting with strain relief plate on DIN rail; wiring locations identified by marker strips



Horizontal mounting on DIN rail using angled DIN rail adapter



Horizontal mounting with strain relief plate on DIN rail using angled DIN rail adapter



Mounting carrier with strain relief plate mounted vertically on a flat panel



Horizontal mounting with strain relief plate on flat panel; wiring locations identified using marker strips



Horizontal screw mounting



Vertical screw mounting

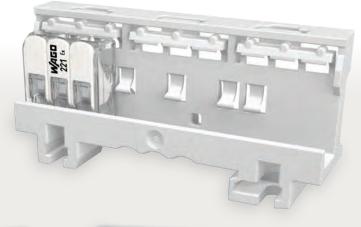


Example: connecting a light using two single mounting carriers

# **221 SERIES LEVER-NUTS®**

### For Hazardous Locations











### WWW.WAGO.COM/221/US

221 Series LEVER-NUTS® for Hazardous Locations:

- Easy, fast and reliable connection technology in Ex areas
- Excellent for junction boxes in haz-loc applications
- Approvals:







#### • Nominal current: 20 A

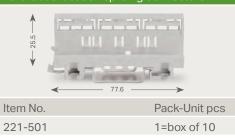
- 440 V with spacing between adjacent connectors in hazardous locations
- 275 V without spacing in hazardous locations
- 600 V general industry; cURus recognized file #E185892
- Operating temperature: 105 °C

24 - 12 AWG      105 °C operating temp        440 V / 20 A      0.43 in / 11 mm        (275 V without spacing)      100 °C				24 - 12 AWG    105 °C operating temp      440 V / 20 A    Image: Comparison of the system      (275 V without spacing)    0.43 in / 11 mm	
2-conductor connector, with levers		3-conductor connector, with levers		5-conductor connector, with levers	
Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs	Item No.	Pack-Unit pcs
221-482	1=box of 100	221-483	1=box of 50	221-485	1=box of 25
221-482/VE00-2500	2500 (bulk)	221-483/VE00-2500	2500 (bulk)	221-485/VE00-1000	1000 (bulk)

## Handling & Mounting

- Must be used with mounting carrier to fulfill Ex requirements
- Mounting carrier can be DIN rail mounted or can be screwed down to a smooth surface

#### **Mounting carrier** (DIN rail and panel mount), for 2-, 3- and 5-conductor hazardous location splicing connectors







Easily open lever by hand and insert conductor



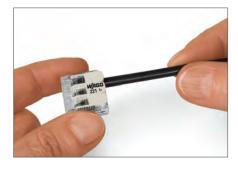
Install connectors into the mounting carrier



Secure the carrier using screws on smooth surfaces



Rated 440 V with spacing between the adjacent connectors



Push lever back down



Remove connectors without tools





Test inserted connectors in the carrier

Rated 275 V with no spacing between connectors

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