



221 Series LEVER-NUTS®

The Way to Connect!



221 Series LEVER-NUTS®

Compact Splicing Connectors for All Wire Types

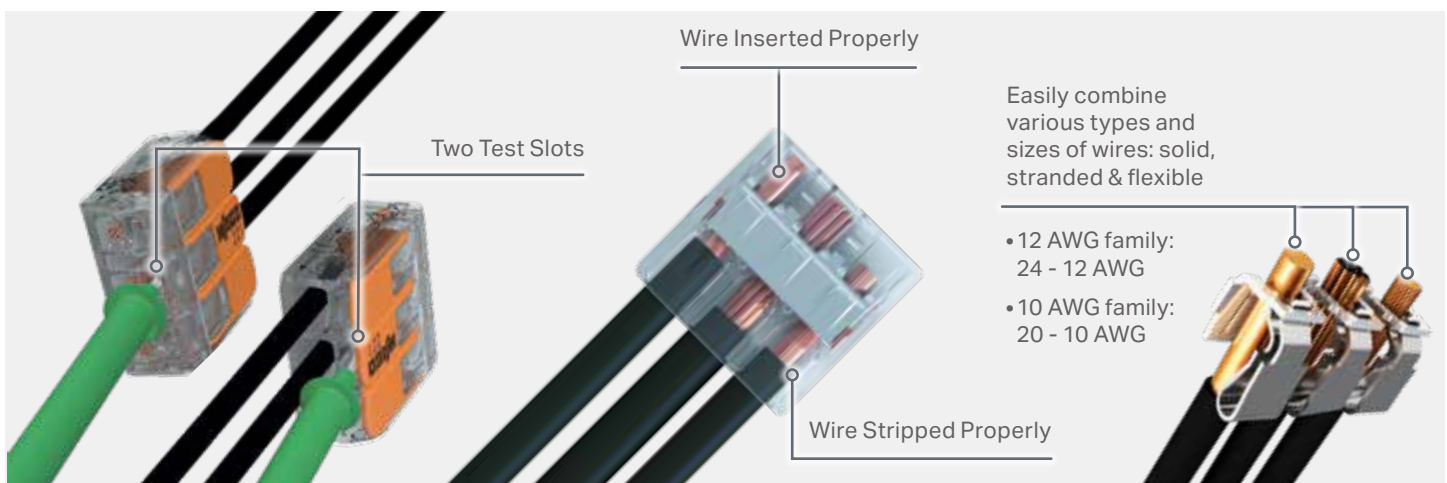


Electrical Data

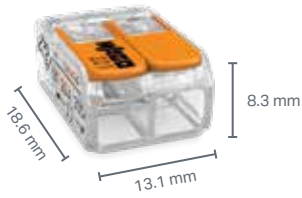
Rated voltage	600 V (1000 V signs & fixtures)	
Nominal current	20 A	30 A
Wire Size		
Solid conductor	24 - 12 AWG	20 - 10 AWG
Stranded conductor	24 - 12 AWG	20 - 10 AWG
Flexible conductor	24 - 12 AWG	20 - 10 AWG
Strip length	11 mm / 0.43 in.	13 mm / 0.51 in.
Maximum operating temperature	105 °C	

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
- 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

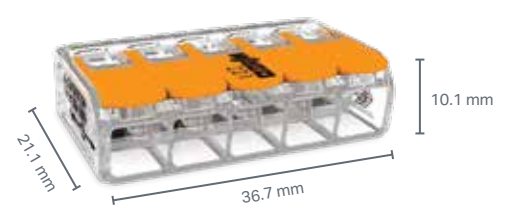


221 Series for 12 AWG



2-conductor connector, with levers		3-conductor connector, with levers		5-conductor connector, with levers	
Item Number	Units	Item Number	Units	Item Number	Units
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	2500 (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/K194-4045/000-100	1=jug of 350	221-415/K194-4045/000-100	1=jug of 225

221 Series for 10 AWG



2-conductor connector, with levers		3-conductor connector, with levers		5-conductor connector, with levers	
Item Number	Units	Item Number	Units	Item Number	Units
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)

221 Series Lever-Nuts® Inline

Compact Splicing Connectors for All Wire Types

Electrical Data	
Item Number	221-2401
Rated voltage	600 V (1000 V signs & fixtures)
Nominal current	20 A
Wire Size	
Solid conductor	20 - 12 AWG
Stranded conductor	18 - 12 AWG
Flexible conductor	18 - 12 AWG
Strip length	11 mm / 0.43 in.
Maximum operating temperature	105 °C

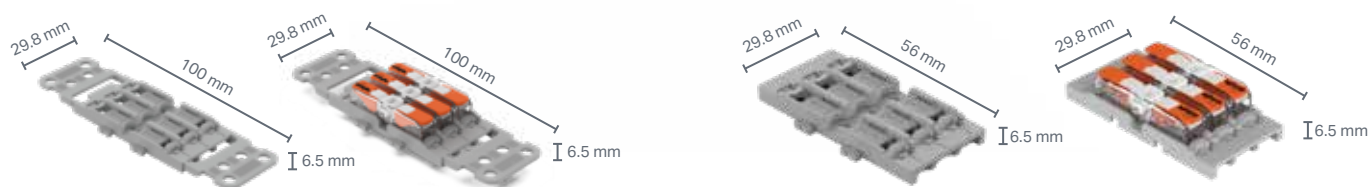
- Connects solid, stranded and fine-stranded conductors from 20-12 AWG in the feedthrough direction
- Slim design minimizes dimensions for installation in tight spaces
- Ease of use - lift the lever up, insert a conductor and push the lever back down
- Tool-free connection and disconnection thanks to the convenient lever technology



2-conductor connector Transparent housing, levers	
Item Number	Units
221-2401/K000-0002	1=box of 60 pcs
221-2401	500 (bulk)
221-2401	2500 (bulk)



Accessories



Mounting Carrier with Strain Relief				Mounting Carrier without Strain Relief			
For Screw Mount		With Snap-In Foot		For Screw Mount		For Snap-In Foot	
221-2501	1-way	221-2511	1-way	221-2521	1-way	221-2531	1-way
221-2502	2-way	221-2512	2-way	221-2522	2-way	221-2532	2-way
221-2503	3-way	221-2513	3-way	221-2523	3-way	221-2533	3-way
221-2504	4-way	221-2514	4-way	221-2524	4-way	221-2534	4-way
221-2505	5-way	221-2515	5-way	221-2525	5-way	221-2535	5-way

Item Number	Designation	Compatibility	Application	Width
209-120	Mounting foot	for DIN-35 rail	Snap on carrier with snap-in mounting foot	6.4 mm
209-123	Mounting foot with screw	for DIN-35 rail	Screw on carrier with mounting flange	6.4 mm
209-119	Mounting screw	for mounting foot (209-120)		
209-1115	Mounting foot	for DIN-15 rail	Snap on carrier with snap-in mounting foot	6.4 mm
209-1116	Mounting foot with screw	for DIN-15 rail	Screw on carrier with mounting flange	6.4 mm

221 Series Lever-Nuts®

For Hazardous Locations

Electrical Data		
Rated Voltage	440 V with spacing between adjacent connectors; 275 V without spacing; 600 V for general industry	
Nominal Current	20 A	30 A
Wire Size		
Solid conductor	24 - 12 AWG	20-10 AWG
Stranded conductor	24 - 12 AWG	20-10 AWG
Flexible conductor	24 - 12 AWG	20-10 AWG
Strip Length	11 mm / 0.43 in.	13 mm / 0.51 in.
Maximum Operating Temperature	105 °C	

- Easy, fast and reliable connection technology for products in hazardous areas
- 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
- Excellent for junction boxes in haz-loc applications

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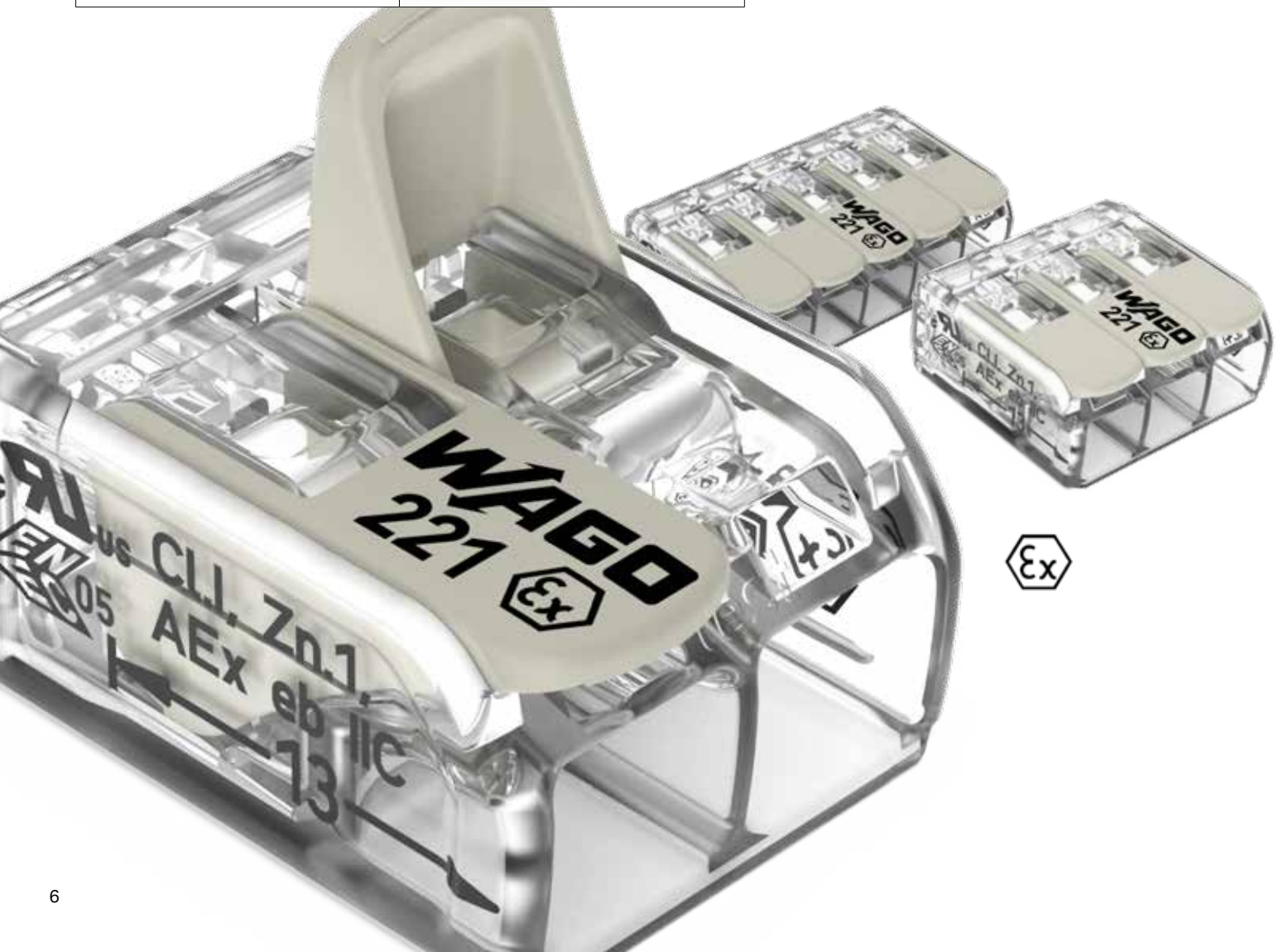
Zone 1, 2



Class 1, Zone 1

AEx

Class 1, Zone 1



221 Series Ex for 12 AWG

2-conductor connector Transparent housing, levers		3-conductor connector Transparent housing, levers		5-conductor connector Transparent housing, levers	
Item Number	Units	Item Number	Units	Item Number	Units
221-482	1=box of 100 pcs	221-483	1=box of 50 pcs	221-485	1=box of 25 pcs

221 Series Ex for 10 AWG

2-conductor connector Transparent housing, levers		3-conductor connector Transparent housing, levers		5-conductor connector Transparent housing, levers	
Item Number	Units	Item Number	Units	Item Number	Units
221-682	1=box of 50 pcs	221-683	1=box of 30 pcs	221-685	1=box of 15 pcs

Easy Operation

Easily open lever by hand and insert conductor

Push lever back down

Install connectors into the mounting carrier

Remove connectors without tools

Secure the carrier using screws on smooth surfaces

Test inserted connectors in the carrier

Rated 440 V with spacing between adjacent connectors

Rated 275 V with no spacing between connectors

Accessories for 221 Series Lever-Nuts®

Operating Tool

For opening 221 series levers

Item Number	Units
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210-102 (12 AWG)	1
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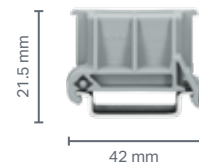
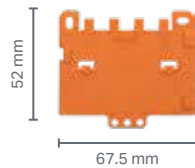
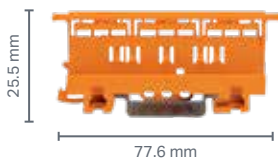
210-104 (10 AWG)	1
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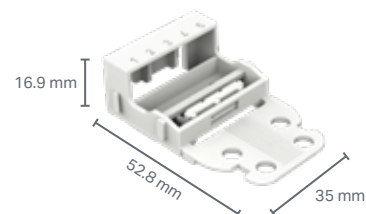
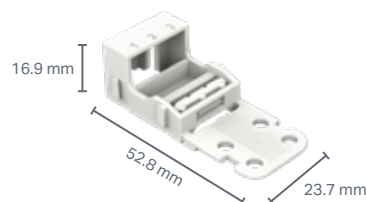
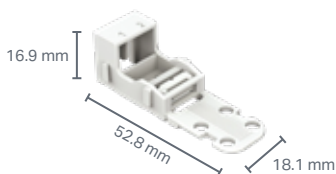
Expand installation flexibility by coupling the easy-to-use 221 Series LEVER-NUTS® with these mounting accessories. The mounting carrier converts the compact splicing connector into a DIN rail or chassis mount terminal block solution.

- 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

12 AWG Family Accessories

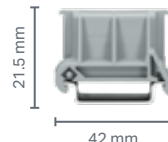
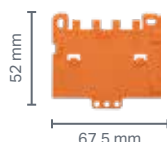
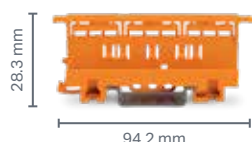


Mounting carrier		Strain relief plate		Angled DIN rail adapter	
For 2-, 3- and 5-conductor compact splicing connectors (DIN rail & panel mount)		For snap-on fixing to 221-500 or 221-510 mounting carrier		In combination with 221-500 or 221-510 mounting carrier for DIN rail mounting	
Item Number	Units	Item Number	Units	Item Number	Units
221-500	1=box of 10	222-505	1=box of 10	222-510	1=box of 10
221-501 (EX)	1=box of 10				



Mounting carrier		Mounting carrier		Mounting carrier	
For single 2-conductor connector (panel mount)		For single 3-conductor connector (panel mount)		For single 5-conductor connector (panel mount)	
Item Number	Units	Item Number	Units	Item Number	Units
221-502	1=box of 10	221-503	1=box of 10	221-505	1=box of 10

10 AWG Family Accessories



Mounting carrier		Strain relief plate		Angled DIN rail adapter	
For 2-, 3- and 5-conductor 10 AWG splicing connectors (DIN rail & panel mount)		For snap-on fixing to 221-500 or 221-510 mounting carrier		In combination with 221-500 or 221-510 mounting carrier for DIN rail mounting	
Item Number	Units	Item Number	Units	Item Number	Units
221-510	1=box of 10	222-505	1=box of 10	222-510	1=box of 10
221-511 (EX)	1=bag of 10				

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



Insert connector into the single mounting carrier



Inserting a conductor into 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 or vertical screw mounting



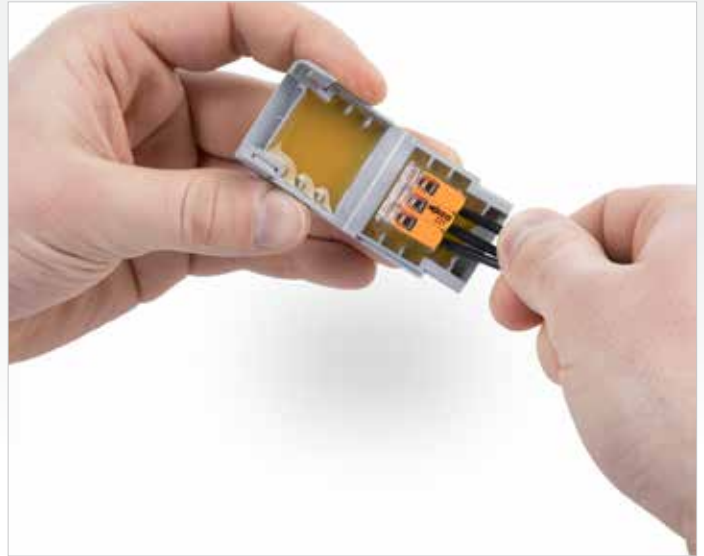
Example: connecting a light using two single mounting carriers

WAGO Gelbox for Splicing Connectors

Handling & Combinations



Open the Gelbox
at the side latches



Place the wired
connector in the Gelbox



Close the Gelbox



Open the Gelbox, remove gel from
the connector, open the connector &
connect new components to the cable

Item Number	221-412	221-413	221-415	221-612	221-613	221-615	221-2401
207-1331	1 x 	1 x 	-				
207-1332	2 x 	-	1 x 				
207-1333	3 x 	2 x 	-				
207-1431				1 x 	1 x 	-	
207-1432				2 x 	-	1 x 	
207-1433				3 x 	2 x 	-	
207-1372							2 x 
207-1373							3 x 
207-1375							5 x 

Note: With other combinations, IPX8 protection cannot be guaranteed.

Item Number	Description
 207-1331	Gelbox, IPX8, 221 and 2773 Series, size 1
 207-1332	Gelbox, IPX8, 221 and 2773 Series, size 2
 207-1333	Gelbox, IPX8, 221 and 2773 Series, size 3
 207-1431	Gelbox, IPX8, 221 Series, size 1
 207-1432	Gelbox, IPX8, 221 Series, size 2
 207-1433	Gelbox, IPX8, 221 Series Inline, size 3
 207-1372	Gelbox, IPX8, 221 Series Inline, size 1
 207-1373	Gelbox, IPX8, 221 Series Inline, size 2
 207-1375	Gelbox, IPX8, 221 Series Inline, size 3

Simple Application

- Voltage range: see connector voltage
- Rated current: see connector current
- Rated surge voltage: 2.5 kV
- Insulation resistance: 5 MΩ
- Continuous operating temperature: 105 °C
- Ambient temperature: 85 °C
- Physical properties: IPX8
- Suitable for indefinite storage

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