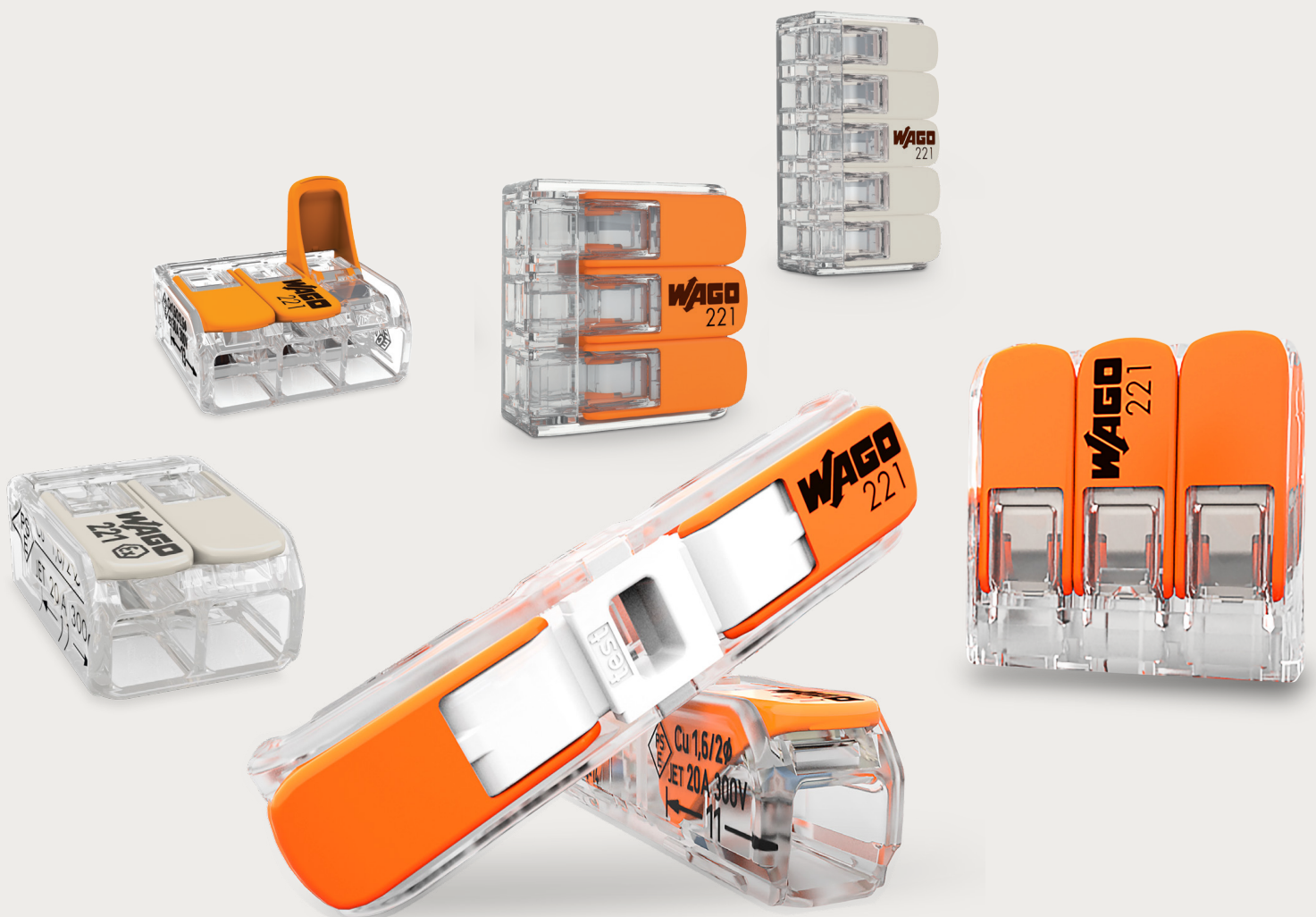




221 Series *LEVER-NUTS*®

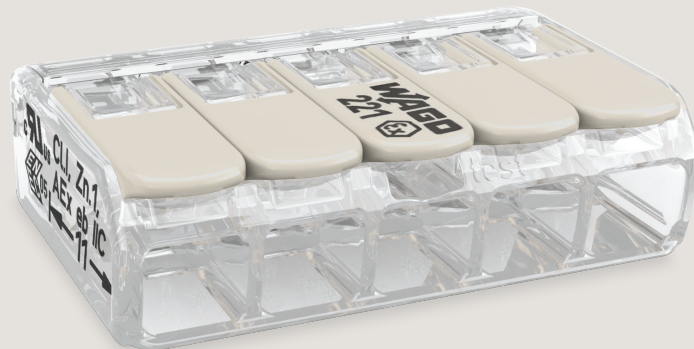
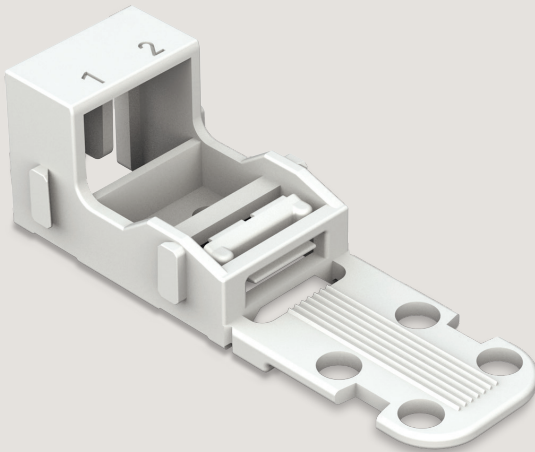
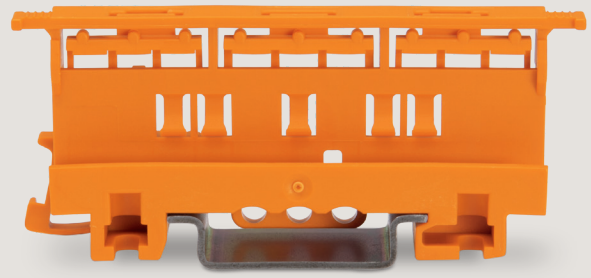
The Way to Connect!





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221 SERIES *LEVER-NUTS*®

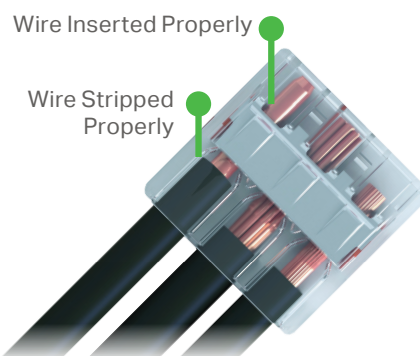
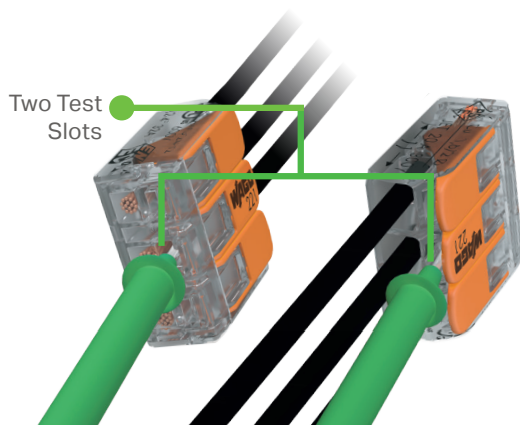
Compact Splicing Connectors for All Wire Types



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

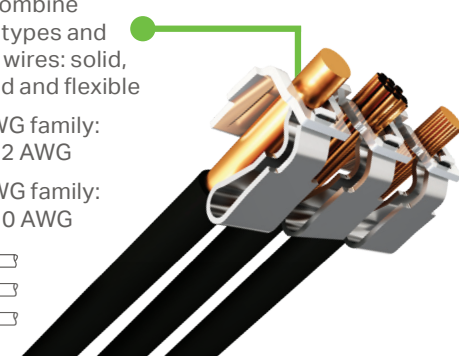
- Connect any combination of solid, stranded and flexible copper wires faster and more reliably
- Visually inspect for proper strip length and complete wire insertion through its transparent housing
- Operate comfortably with lower operating forces by using familiar orange levers

Electrical Data		
	12 AWG	10 AWG
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
Maximum operating temperature	105 °C	
Approvals	    	

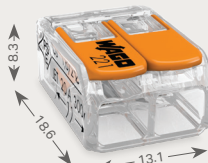


Easily combine various types and sizes of wires: solid, stranded and flexible

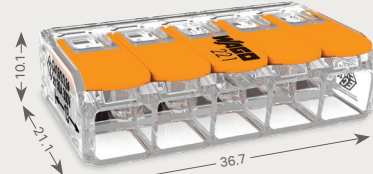
- 12 AWG family: 24 - 12 AWG
- 10 AWG family: 20 - 10 AWG



221 Series for 12 AWG

24 - 12 AWG 600 V / 20 A	105 °C operating temp  0.43 in / 11 mm	24 - 12 AWG 600 V / 20 A	105 °C operating temp  0.43 in / 11 mm	24 - 12 AWG 600 V / 20 A	105 °C operating temp  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
221-412	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/K194-4045/000-100	1=jug of 350	221-415/K194-4045/000-100	1=jug of 225

221 Series for 10 AWG

20 - 10 AWG 600 V / 30 A	105 °C operating temp  0.43 in / 11 mm	20 - 10 AWG 600 V / 30 A	105 °C operating temp  0.43 in / 11 mm	20 - 10 AWG 600 V / 30 A	105 °C operating temp  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
221-612	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

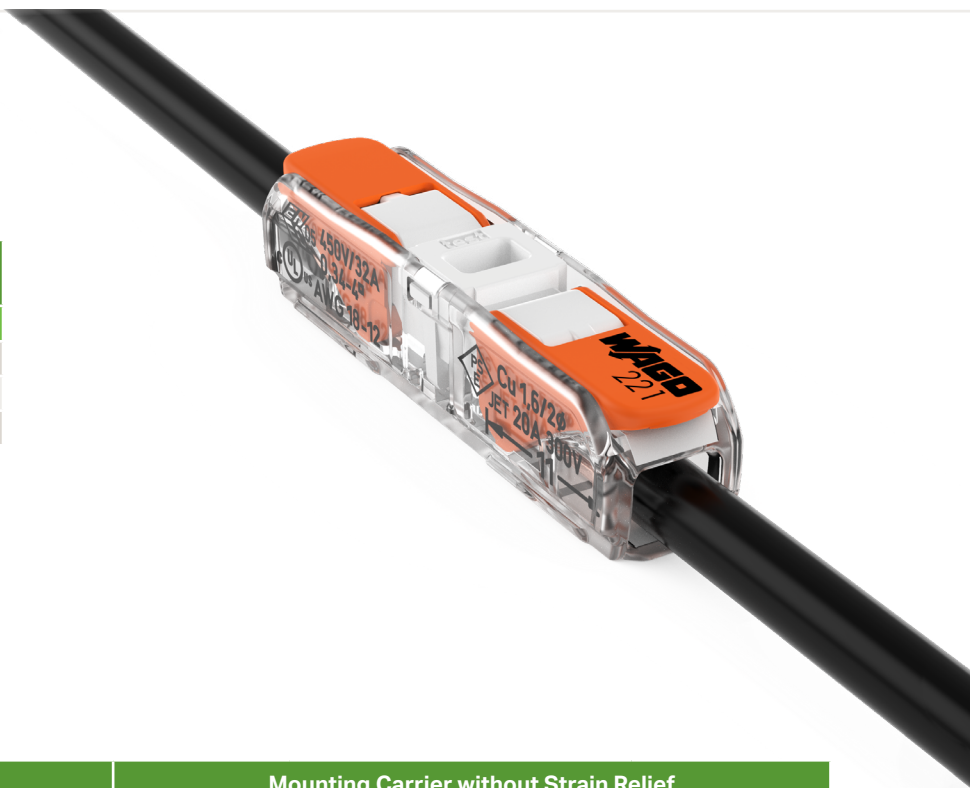


221 SERIES *LEVER-NUTS*® INLINE

- 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

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
Approvals	  

2-conductor connector Transparent housing, orange levers	
Item No.	Pack.-unit pcs
221-2401	1=box of 60 pcs
221-2401	500 (bulk)
221-2401	2500 (bulk)

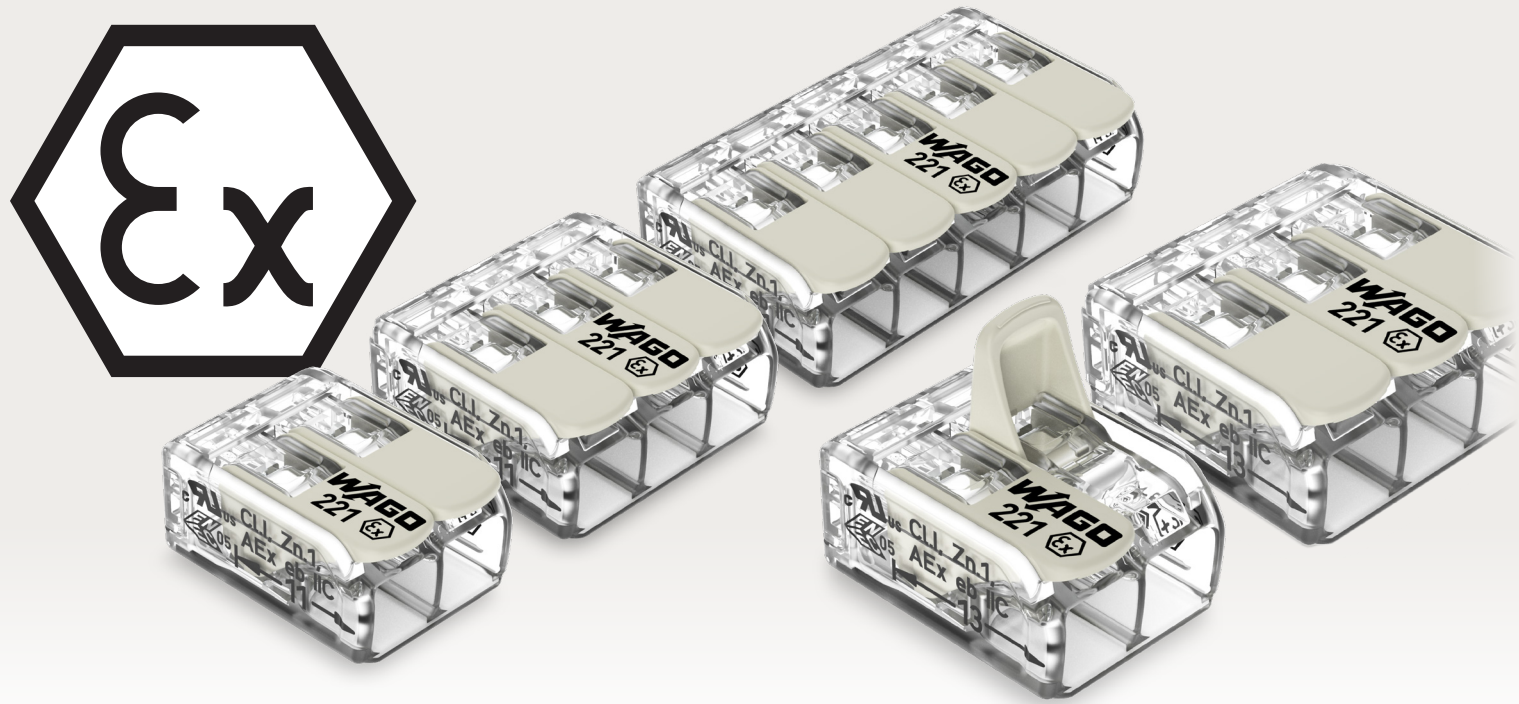


Accessories

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



221 SERIES *LEVER-NUTS*®

- 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

Electrical Data		
	12 AWG	10 AWG
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	
Approvals	4 Zone 1, 2 IECEx Class 1, Zone 1 AEx Class 1, Zone 1	

221 Series Ex for 12 AWG

8.3 mm
18.6 mm
13.1 mm

L 11 mm / 0.43 in.

8.3 mm
18.6 mm
18.7 mm

L 11 mm / 0.43 in.

8.3 mm
18.6 mm
29.9 mm

L 11 mm / 0.43 in.

2-conductor connector		3-conductor connector		5-conductor connector	
Transparent housing, white levers		Transparent housing, white levers		Transparent housing, white levers	
Item No.	Pack.-unit pcs	Item No.	Pack.-unit pcs	Item No.	Pack.-unit pcs
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

10.1 mm
21.1 mm
16 mm

L 11 mm / 0.43 in.

10.1 mm
21.1 mm
22.9 mm

L 11 mm / 0.43 in.

10.1 mm
21.1 mm
36.7 mm

L 11 mm / 0.43 in.

2-conductor connector		3-conductor connector		5-conductor connector	
Transparent housing, white levers		Transparent housing, white levers		Transparent housing, white levers	
Item No.	Pack.-unit pcs	Item No.	Pack.-unit pcs	Item No.	Pack.-unit pcs
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

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

MOUNTING ACCESSORIES

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

Operating Tool,
for opening 221 Series levers



Item No.	Pack-Unit pcs
221-102 (12 AWG)	1
221-104 (10 AWG)	1

Accessories for 12 AWG Family

Mounting carrier (DIN rail and panel mount), for 2-, 3- and 5-conductor compact splicing connectors	Strain relief plate, 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
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
221-501 (EX) 1=box of 10 pcs		

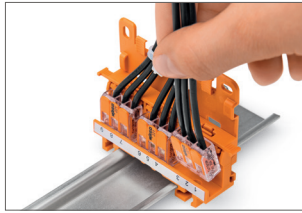
Mounting carrier (Panel mount), for single 2-conductor connector	Mounting carrier (Panel mount), for single 3-conductor connector	Mounting carrier (Panel mount), for single 5-conductor connector
Item No. Pack-Unit pcs	Item No. Pack-Unit pcs	Item No. Pack-Unit pcs
221-502 1=box of 10	221-503 1=box of 10	221-505 1=box of 10

Accessories for 10 AWG Family

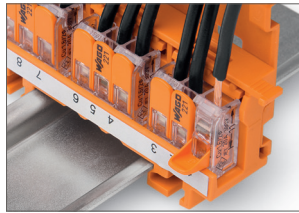
Mounting carrier (DIN rail and panel mount), for 2-, 3- and 5-conductor 10 AWG splicing connectors	Strain relief plate, for snap-on fixing to 221-500 or 221-510 mounting carrier	Angled DIN rail adapter, in combination with 221-500 or 221-510 mounting carrier for DIN rail mounting
Item No. Pack-Unit pcs	Item No. Pack-Unit pcs	Item No. Pack-Unit pcs
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 pcs		

HANDLING & MOUNTING

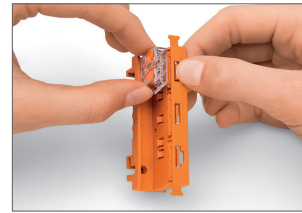
Handling:



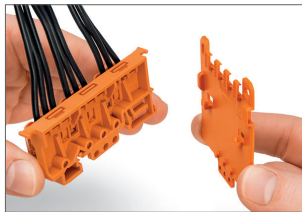
Insert connectors into the mounting carrier



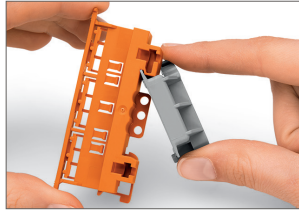
Access to levers when mounted; wiring possible before and/or after inserting connectors into the carrier



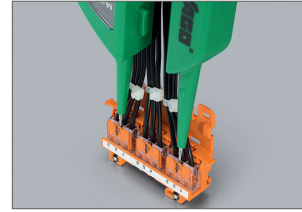
Removing connector from the mounting carrier



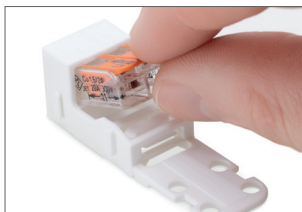
Mounting of strain relief plate (222-505) to the mounting carrier



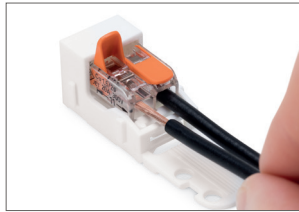
Snapping the angled DIN rail adapter on the mounting carrier



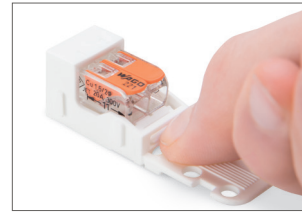
Testing connectors via their front test slots, which remain accessible when mounted



Insert connector into the single mounting carrier



Inserting a conductor into the single mounting carrier



Removing a conductor from the single mounting carrier

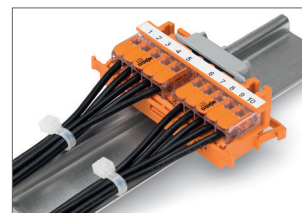
Mounting Options:



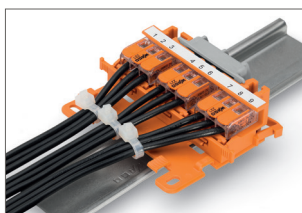
Vertical mounting on DIN rail with wire ties providing strain relief



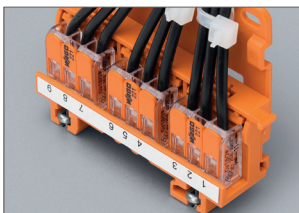
Vertical mounting with strain relief plate on DIN rail; wiring locations identified by marker strips



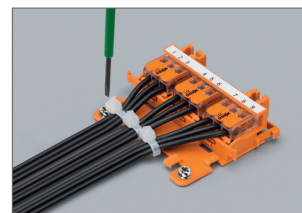
Horizontal mounting on DIN rail using angled DIN rail adapter



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

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