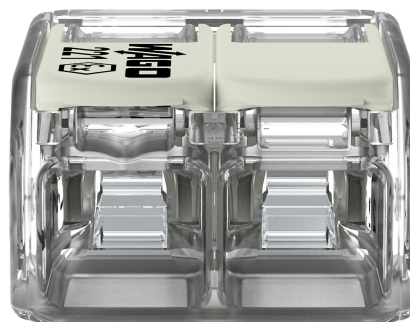
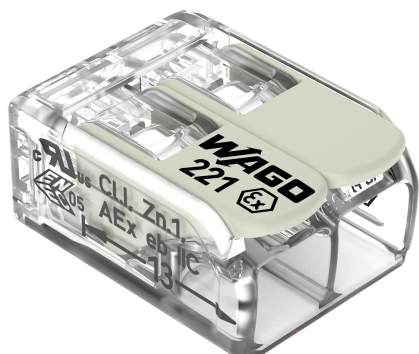


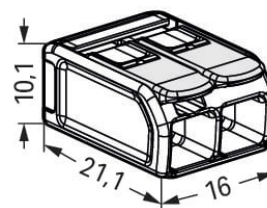
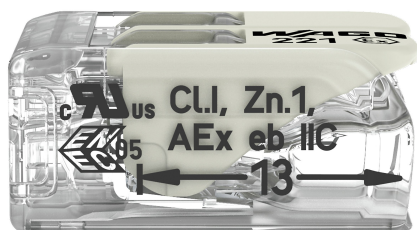
# Data Sheet | Item Number: 221-682

Splicing connector with levers; for all conductor types; for Ex e applications; max. 6 mm<sup>2</sup>; 2-conductor; transparent housing; Operating temperature (max.): 105 °C; 6,00 mm<sup>2</sup>; transparent

<https://www.wago.com/221-682>



Color: ☐ transparent



Dimensions in mm

Splicing connector with levers, 221 Series, lever

Splicing connector with levers (item number 221-682) simplifies electrical installations. From wiring intercom systems to installing electrical ovens, connecting different conductor types is quick and hassle-free with WAGO's compact 221 Series splicing connector, which allows you to quickly and safely connect different types of conductors. Conductors can only be connected to splicing connector with levers if their strip length is between 12 mm and 14 mm. 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. The dimensions are 16 x 10.1 x 21.1 mm (width x height x depth). Depending on the type of conductor, splicing connector with levers is designed for conductor cross sections ranging from 0.5 mm² to 6 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 | <div><b>NOTICE: Observe installation and safety instructions!</b></div> <div><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></div> <div><b>To be sold only with installation instructions!</b></div> |
| Safety Information          | The permissible operating voltage of the connector with carrier (440 V or 275 V) depends on the mounting type.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Safety information 2        | Only approved in conjunction with a mounting carrier (221-511). Other carriers are possible, see certificate/file.<br>The connectors must be installed in an enclosure meeting the requirements of a recognized protection type per EN 60079-0, Section 1 or EN 60079-31.<br>When installing the connectors in an enclosure of protection type "eb" (increased safety) per EN 60079-7, the clearances and creepage distances of Table 2 for this standard must be observed. See point 1 for the use of accessories. The connectors can be used both in Group II and Group I, as the standard requirements are identical in this case.<br>The use of these components requires a new assessment by a notified certification agency.     |

| Electrical data |  |          |       |   |
|-----------------|--|----------|-------|---|
| Approvals per   |  | UL 60079 |       |   |
| Use group       |  | B        | C     | D |
| Rated voltage   |  | -        | 440 V | - |
| Rated current   |  | -        | 30 A  | - |

| Ex information             |                                                                |
|----------------------------|----------------------------------------------------------------|
| Ratings per                | ATEX: PTB 19 ATEX 1001 U / IECEx: PTB 19.001 1U (Ex eb IIC Gb) |
| Rated voltage EN (Ex e II) | 440 V                                                          |
| Rated current (Ex e II)    | 37 A                                                           |



| Connection data                 |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
|---------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|----------------|-------|---------------------------------|--------|-----------------------|----------------|-----------------|-------------------------------|--------------------|-------------------------------|-------------------------|-------------------------------|--------------|-------------------------------------|------------------|-------------------|
| Clamping units                  | 2                                   | <div>Connection 1</div> <table><tr><td>Connection technology</td><td>CAGE CLAMP®</td></tr><tr><td>Actuation type</td><td>Lever</td></tr><tr><td>Connectable conductor materials</td><td>Copper</td></tr><tr><td>Nominal cross-section</td><td>6 mm² / 10 AWG</td></tr><tr><td>Solid conductor</td><td>0.5 ... 6 mm² / 20 ... 10 AWG</td></tr><tr><td>Stranded conductor</td><td>0.5 ... 6 mm² / 20 ... 10 AWG</td></tr><tr><td>Fine-stranded conductor</td><td>0.5 ... 6 mm² / 20 ... 10 AWG</td></tr><tr><td>Strip length</td><td>12 ... 14 mm / 0.47 ... 0.55 inches</td></tr><tr><td>Wiring direction</td><td>Side-entry wiring</td></tr></table> | Connection technology | CAGE CLAMP® | Actuation type | Lever | Connectable conductor materials | Copper | Nominal cross-section | 6 mm² / 10 AWG | Solid conductor | 0.5 ... 6 mm² / 20 ... 10 AWG | Stranded conductor | 0.5 ... 6 mm² / 20 ... 10 AWG | Fine-stranded conductor | 0.5 ... 6 mm² / 20 ... 10 AWG | Strip length | 12 ... 14 mm / 0.47 ... 0.55 inches | Wiring direction | Side-entry wiring |
| Connection technology           | CAGE CLAMP®                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Actuation type                  | Lever                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Connectable conductor materials | Copper                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Nominal cross-section           | 6 mm² / 10 AWG                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Solid conductor                 | 0.5 ... 6 mm² / 20 ... 10 AWG       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Stranded conductor              | 0.5 ... 6 mm² / 20 ... 10 AWG       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Fine-stranded conductor         | 0.5 ... 6 mm² / 20 ... 10 AWG       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Strip length                    | 12 ... 14 mm / 0.47 ... 0.55 inches |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Wiring direction                | Side-entry wiring                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |
| Total number of potentials      | 1                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |             |                |       |                                 |        |                       |                |                 |                               |                    |                               |                         |                               |              |                                     |                  |                   |

| Physical data |                        |  |
|---------------|------------------------|--|
| Width         | 16 mm / 0.63 inches    |  |
| Height        | 10.1 mm / 0.398 inches |  |
| Depth         | 21.1 mm / 0.831 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                          | 0.066 MJ                                                                 |  |
| Actuator color                     | light gray                                                               |  |
| Weight                             | 3 g                                                                      |  |

| Environmental requirements       |                 |  |
|----------------------------------|-----------------|--|
| Ambient temperature (storage)    | -40 ... +60 °C  |  |
| Continuous operating temperature | -55 ... +105 °C |  |

| Commercial data       |               |  |
|-----------------------|---------------|--|
| ETIM 9.0              | EC000446      |  |
| ETIM 8.0              | EC000446      |  |
| PU (SPU)              | 500 (50) pcs  |  |
| Packaging type        | Box           |  |
| Country of origin     | DE            |  |
| GTIN                  | 4055143860390 |  |
| Customs tariff number | 85369010000   |  |



| Environmental Product Compliance |                        |
|----------------------------------|------------------------|
| RoHS Compliance Status           | Compliant,No Exemption |

Approvals / Certificates

| General approvals                                                                |           |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|----------------------------------------------------------------------------------|-----------|------------------|------------------------------------------------------------|----------|------------------|
|  |           |                  |                                                            |          |                  |
| Approval                                                                         | Standard  | Certificate Name | Approval                                                   | Standard | Certificate Name |
| CB<br>DEKRA Certification B.V.                                                   | IEC 60998 | NL-81003         | ATEX-Attestation of Con-<br>formity<br>WAGO GmbH & Co. KG  | -        | -                |
| cULus_Listed_667F<br>Underwriters Laboratories<br>Inc.                           | UL 486C   | E69654           | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| ENEC 05<br>DEKRA Certification B.V.                                              | EN 60998  | 71-123784        | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |

| Approvals for marine applications                                                |          |                  | Approvals for hazardous areas                                                      |                |                                                                  |
|----------------------------------------------------------------------------------|----------|------------------|------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------|
|  |          |                  |  |                |                                                                  |
| Approval                                                                         | Standard | Certificate Name | Approval                                                                           | Standard       | Certificate Name                                                 |
| LR<br>Lloyds Register                                                            | EN 60998 | LR22207029TA     | AEx<br>Underwriters Laboratories<br>Inc.                                           | UL 60079       | E185892 (AEx eb IIC resp.<br>Ex eb IIC)                          |
|                                                                                  |          |                  | ATEX<br>Physikalisch Technische<br>Bundesanstalt                                   | EN IEC 60079-0 | PTB 19 ATEX 1001 U (II 2<br>G Ex eb IIC Gb, I M 2 Ex eb<br>I Mb) |
|                                                                                  |          |                  | CCC<br>CNEX                                                                        | GB/T 3836.3    | 2020312313000185 (Ex<br>eb IIC Gb, Ex eb I Mb)                   |
|                                                                                  |          |                  | IECEx<br>Physikalisch Technische<br>Bundesanstalt                                  | IEC 60079-0    | IECEx PTB 19.001 1U (EX<br>eb IIC Gb, Ex eb I Mb)                |
|                                                                                  |          |                  | INMETRO<br>TÜV Rheinland do Brasil<br>Ltda.                                        | IEC 60079      | TÜV 19.1781 U                                                    |

| Downloads                                   |                                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| Environmental Product Compliance            |                                                                                     |
| Compliance Search                           |                                                                                     |
| Environmental Product<br>Compliance 221-682 |  |

Documentation

|                            |
|----------------------------|
| Bid Text                   |
| ausschreiben.de<br>221-682 |
|                            |

CAD/CAE-Data

|                      |
|----------------------|
| CAD data             |
| 2D/3D Models 221-682 |
|                      |

|                              |
|------------------------------|
| CAE data                     |
| EPLAN Data Portal<br>221-682 |
|                              |
| ZUKEN Portal 221-682         |
|                              |

1 Compatible Products

1.1 Optional Accessories

1.1.1 Mounting adapter

1.1.1.1 Mounting accessories

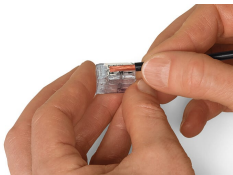


**Item No.: 221-510/000-006**  
Mounting carrier; 221 Series - 6 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; blue

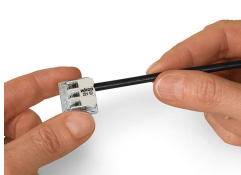
**Item No.: 221-511**  
Mounting carrier; for Ex applications; 221 Series - 6 mm<sup>2</sup>; for DIN-35 rail mounting/screw mounting; light gray

Installation Notes

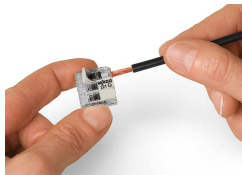
Conductor termination



Strip conductor to 11 mm (0.43 inch).

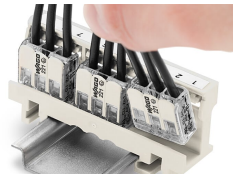


Then, lower the lever to close the clamp.

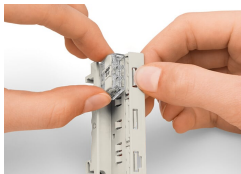


Termination: Lift the lever to open the clamping unit and insert a stripped conductor.

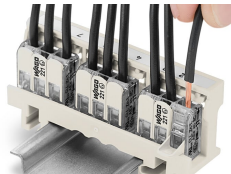
Installation



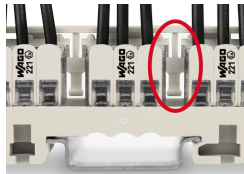
Inserting a connector into the mounting carrier.



Removing a connector from the mounting carrier.



Removing a conductor.

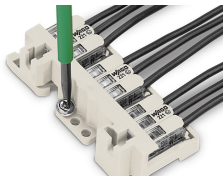


**Mounting type (440 V)**  
Using spacers between the connectors.

Installation



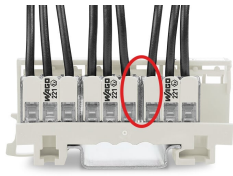
**Mounting type (440 V)**  
Vertical mounting on DIN-35 rail



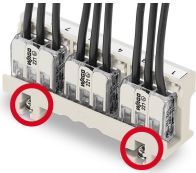
**Mounting type (440 V)**  
Horizontal screw mounting on a flat surface



**Mounting type (440 V)**  
Mounting the carrier via non-conductive screws.

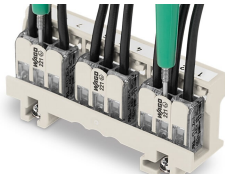


**Mounting type (275 V)**  
No spacers are used between the connectors.



**Mounting type (275 V)**  
Mounting the carrier using conductive screws.

Testing



Easily test inserted connectors in the carrier – however they are mounted.