

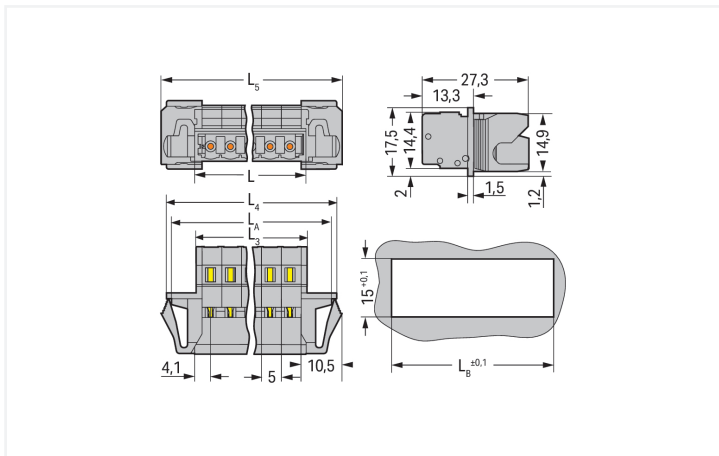
## Data Sheet | Item Number: 231-622/114-000

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 22-pole;  
Snap-in flange; gray

<https://www.wago.com/231-622/114-000>

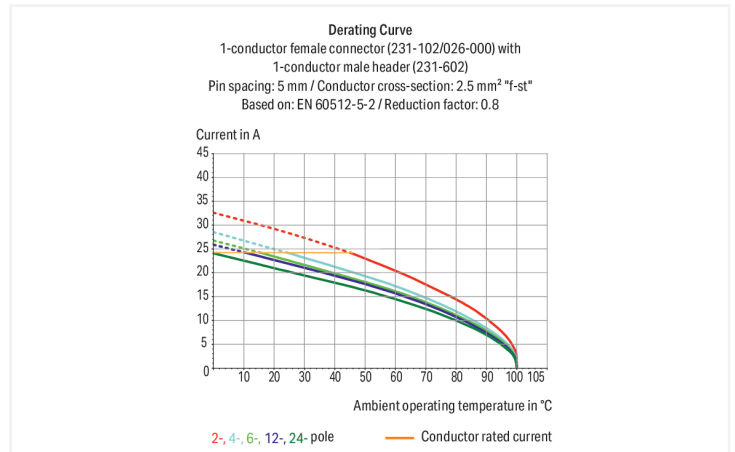


Color: ■ gray



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$   
 $L_3 = L - 0.2 \text{ mm}$   
 $L_4 = L_3 + 15.2 \text{ mm}$   
 $L_5 = L_3 + 18 \text{ mm}$   
 $L_A = L_3 + 12.6 \text{ mm}$   
 $L_B = L_3 + 13.2 \text{ mm}$



Male connector, 231 Series, with 5 mm pin spacing

This male connector (item number 231-622/114-000) simplifies electrical installations. Conductors can only be connected to this male connector if their strip length is between 8 and 9 mm. Featuring one conductor terminal along with CAGE CLAMP®, this product delivers reliable performance. 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 (131 x 17.5 x 27.5) mm (width x height x depth). This male connector is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

The contact surface is coated with tin.



| Notes              |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety Information | The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated. |
| Variants:          | Other pole numbers<br>Gold-plated or partially gold-plated contact surfaces<br>Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .                                                                                                                                                                             |

| Electrical data                 |  |                |       |       |
|---------------------------------|--|----------------|-------|-------|
| Ratings per                     |  | IEC/EN 60664-1 |       |       |
| Overvoltage category            |  | III            | III   | II    |
| Pollution degree                |  | 3              | 2     | 2     |
| Nominal voltage                 |  | 320 V          | 320 V | 630 V |
| Rated impulse withstand voltage |  | 4 kV           | 4 kV  | 4 kV  |
| Rated current                   |  | 12 A           | 12 A  | 12 A  |
| Approvals per                   |  | UL 1059        |       |       |
| Use group                       |  | B              | C     | D     |
| Rated voltage                   |  | 300 V          | -     | 300 V |
| Rated current                   |  | 15 A           | -     | 10 A  |
| Approvals per                   |  | UL 1977        |       |       |
| Rated voltage                   |  | 600 V          |       |       |
| Rated current                   |  | 15 A           |       |       |
| Approvals per                   |  | CSA            |       |       |
| Use group                       |  | B              | C     | D     |
| Rated voltage                   |  | 300 V          | -     | 300 V |
| Rated current                   |  | 15 A           | -     | 10 A  |

| Connection Data                                   |                                            |  |
|---------------------------------------------------|--------------------------------------------|--|
| Clamping units                                    | 22                                         |  |
| Total number of potentials                        | 22                                         |  |
| Number of connection types                        | 1                                          |  |
| Number of levels                                  | 1                                          |  |
| Connection 1                                      |                                            |  |
| Connection technology                             | CAGE CLAMP®                                |  |
| Actuation type                                    | Operating tool                             |  |
| Actuation direction 1                             | Operation parallel to conductor entry      |  |
| Actuation direction 2                             | Operation perpendicular to conductor entry |  |
| Solid conductor                                   | 0.08 ... 2.5 mm² / 28 ... 12 AWG           |  |
| Fine-stranded conductor                           | 0.08 ... 2.5 mm² / 28 ... 12 AWG           |  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm²                           |  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm²                           |  |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inches          |  |
| Pole number                                       | 22                                         |  |
| Conductor entry direction to mating direction     | 0 °                                        |  |

| Physical data |                        |
|---------------|------------------------|
| Pin spacing   | 5 mm / 0.197 inches    |
| Width         | 131 mm / 5.157 inches  |
| Height        | 17.5 mm / 0.689 inches |
| Depth         | 27.5 mm / 1.083 inches |

### Mechanical data

|                                         |                                      |
|-----------------------------------------|--------------------------------------|
| Variable coding                         | Yes                                  |
| Housing sheet thickness                 | 0.5 ... 3 mm / 0.02 ... 0.118 inches |
| Mounting type                           | Snap-in flange                       |
| Mounting type                           | Feed-through mounting                |
| Anti-rotation protection                | Yes                                  |
| Suitable for through-panel applications | Yes                                  |

### Plug-in connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type)        | for conductor       |
| Mismating protection               | No                  |

### Material data

|                                    |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | gray                                                                     |
| Material group                     | I                                                                        |
| Insulation material (main housing) | Polyamide (PA66)                                                         |
| Flammability class per UL94        | V0                                                                       |
| Clamping spring material           | Chrome-nickel spring steel (CrNi)                                        |
| Contact material                   | Electrolytic copper (E <sub>CU</sub> )                                   |
| Contact Plating                    | Tin                                                                      |
| Fire load                          | 0.605 MJ                                                                 |
| Weight                             | 34.8 g                                                                   |

### Environmental requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature  | -35 ... +60 °C  |

### Commercial data

|                       |                        |
|-----------------------|------------------------|
| Product Group         | 3 (Multi Conn. System) |
| PU (SPU)              | 10 pcs                 |
| Packaging type        | Box                    |
| Country of origin     | DE                     |
| GTIN                  | 4050821216209          |
| Customs tariff number | 85366930000            |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 39121409             |
| eCl@ss 10.0 | 27-44-03-09          |
| eCl@ss 9.0  | 27-44-03-09          |
| ETIM 9.0    | EC002638             |
| ETIM 10.0   | EC002638             |
| ECCN        | NO US CLASSIFICATION |



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

Approvals / Certificates

| General approvals                                                                |           |                  | Approvals for marine applications                                                  |           |                   |
|----------------------------------------------------------------------------------|-----------|------------------|------------------------------------------------------------------------------------|-----------|-------------------|
|  |           |                  |  |           |                   |
| Approval                                                                         | Standard  | Certificate Name | Approval                                                                           | Standard  | Certificate Name  |
| CB<br>DEKRA Certification B.V.                                                   | IEC 61984 | NL-113351        | ABS<br>American Bureau of Ship-<br>ping                                            | -         | 24-0095975-PDA    |
| CSA<br>DEKRA Certification B.V.                                                  | C22.2     | 1466354          | BV<br>Bureau Veritas S.A.                                                          | IEC 60998 | 11915/E0 BV       |
| KEMA/KEUR<br>DEKRA Certification B.V.                                            | EN 61984  | 71-130478 REV.1  | DNV<br>DNV GL SE                                                                   | -         | TAE000016Z        |
| UL<br>Underwriters Laboratories<br>Inc.                                          | UL 1059   | E45172           | PRS<br>Polski Rejestr Statków                                                      | -         | TE/1095/880590/23 |
| UR<br>Underwriters Laboratories<br>Inc.                                          | UL 1977   | E45171           |                                                                                    |           |                   |

Downloads

| Environmental Product Compliance                       |                                                                                     |
|--------------------------------------------------------|-------------------------------------------------------------------------------------|
| Compliance Search                                      |                                                                                     |
| Environmental Product<br>Compliance<br>231-622/114-000 |  |

Documentation

| Additional Information |            |                   |                                                                                     |
|------------------------|------------|-------------------|-------------------------------------------------------------------------------------|
| Technical Section      | 03.04.2019 | pdf<br>2027.26 KB |  |

CAD/CAE-Data

| CAD data                        |                                                                                     | CAE data                        |                                                                                       |
|---------------------------------|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------|
| 2D/3D Models<br>231-622/114-000 |  | ZUKEN Portal<br>231-622/114-000 |  |



1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



**Item No.: 231-122/026-000**  
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 22-pole; gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



**Item No.: 231-129**  
Coding key; snap-on type; light gray

1.2.2 Cover

1.2.2.1 Cover



**Item No.: 231-668**  
Lockout caps; for covering unused clamping units; gray

1.2.3 Ferrule

1.2.3.1 Ferrule



**Item No.: 216-301**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



**Item No.: 216-302**  
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



**Item No.: 216-201**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-241**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



**Item No.: 216-141**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-101**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-242**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-262**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



**Item No.: 216-202**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



**Item No.: 216-142**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



**Item No.: 216-102**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored



**Item No.: 216-243**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-263**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



**Item No.: 216-203**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



**Item No.: 216-103**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated



**Item No.: 216-143**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



1.2.3.1 Ferrule



**Item No.: 216-204**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



**Item No.: 216-244**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-264**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-284**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



**Item No.: 216-144**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored



**Item No.: 216-104**  
Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored



**Item No.: 216-106**  
Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; electro-tin plated; silver-colored

1.2.4 Insulation stop

1.2.4.1 Insulation stop



**Item No.: 231-670**  
Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white



**Item No.: 231-671**  
Insulation stop; 0.25 - 0.5 mm²; light gray



**Item No.: 231-672**  
Insulation stop; 0.75 - 1 mm²; dark gray

1.2.5 Jumper

1.2.5.1 Jumper



**Item No.: 231-910**  
Jumper; for conductor entry; 10-way; insulated; gray



**Item No.: 231-902**  
Jumper; for conductor entry; 2-way; insulated; gray



**Item No.: 231-903**  
Jumper; for conductor entry; 3-way; insulated; gray



**Item No.: 231-905**  
Jumper; for conductor entry; 5-way; insulated; gray



**Item No.: 231-907**  
Jumper; for conductor entry; 7-way; insulated; gray

1.2.6 Marking

1.2.6.1 Marking strip



**Item No.: 210-331/500-103**  
Marking strips; as a DIN A4 sheet; MARKED; 1-12 (300x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/500-202**  
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/500-205**  
Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-331/500-104**  
Marking strips; as a DIN A4 sheet; MARKED; 13-24 (300x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/500-204**  
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/500-206**  
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

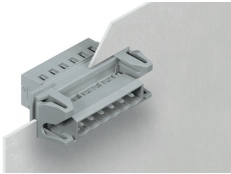
1.2.7 Tool

1.2.7.1 Operating tool

|  |  |  |  |
|--|--|--|--|
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|  |  |  |  |
|  |  |  |  |
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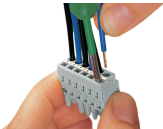
Installation Notes

Application

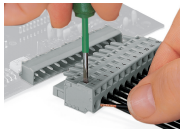


Male connector, with snap-in flanges, for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

Conductor termination



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.

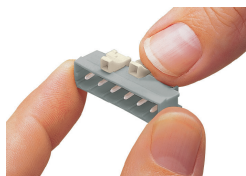


Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).



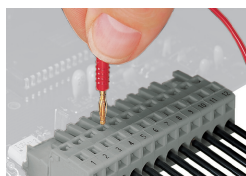
Inserting a conductor via operating tool.

## Coding



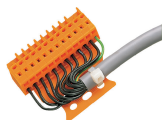
Coding a male header – fitting coding key(s).

## Testing

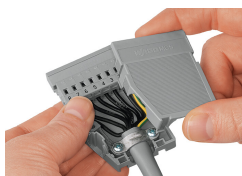


Testing – female connector with CAGE CLAMP®  
Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

## Installation



Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

## Marking



Labeling via direct marking or self-adhesive strips.