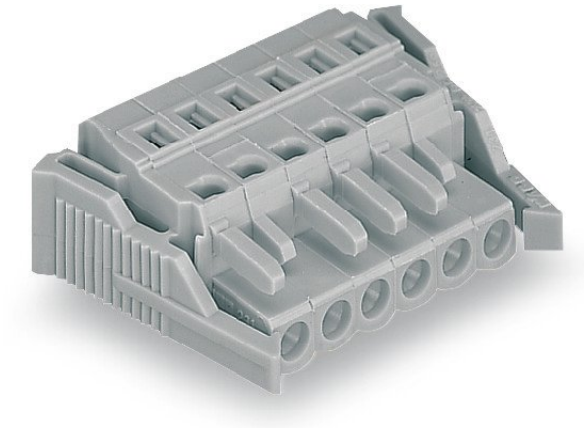
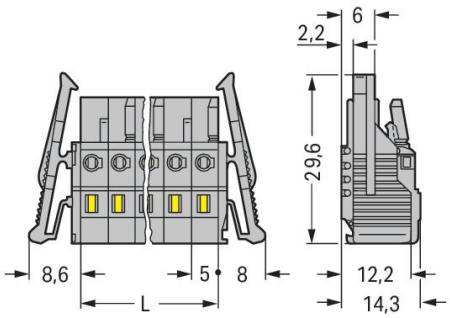
# Data sheet | Item number: 231-108/037-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 8-pole; Lateral locking levers; 2,50 mm²; gray

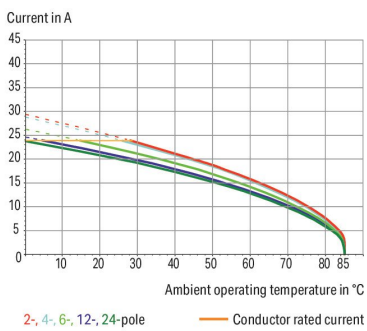
https://www.wago.com/231-108/037-000



Color: gray




Dimensions in mm
L = pole no. x pin spacing
2- to 3-pole female connectors – one latch only




- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With coding fingers

## Notes

| | |
|---|---|
| Safety information 1 | 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: | Gold-plated or partially gold-plated contact surfaces<br>Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/. |

## Electrical data

### Ratings per IEC/EN

| | |
|---|---|
| Ratings per | IEC/EN 60664-1 |
| Nominal voltage (III/3) | 320 V |
| Rated impulse voltage (III/3) | 4 kV |
| Rated voltage (III/2) | 320 V |
| Rated impulse voltage (III/2) | 4 kV |
| Nominal voltage (II/2) | 630 V |
| Rated surge voltage (II/2) | 4 kV |
| Rated current | 16 A |
| Legend (ratings) | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

### Ratings per UL

| | |
|---|---|
| Approvals per | UL 1059 |
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 15 A |
| Rated voltage UL (Use Group D) | 300 V |
| Rated current UL (Use Group D) | 10 A |

### Ratings per UL

| | |
|---|---|
| Rated voltage (UL 1977) | 600 V |
| Rated current UL 1977 | 15 A |

### Ratings per CSA

| | |
|---|---|
| Approvals per | CSA |
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 15 A |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A |

## Connection data

| | |
|---|---|
| Total number of connection points | 8 |
| Total number of potentials | 8 |
| Number of connection types | 1 |
| Number of levels | 1 |

### Connection 1

| | |
|---|---|
| Connection technology | CAGE CLAMP® |
| Actuation type | Operating tool |
| 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 inch |
| Pole number | 8 |
| Conductor entry direction to mating direction | 0 ° |

 Continued on next page

## Physical data

| | |
|---|---|
| Pin spacing | 5 mm / 0.197 inch |
| Width | 56.6 mm / 2.228 inch |
| Height | 14.3 mm / 0.563 inch |
| Depth | 29.6 mm / 1.165 inch |

## Mechanical data

| | |
|---|---|
| Variable coding | Yes |

## Plug-in connection

| | |
|---|---|
| Contact type (pluggable connector) | Female connector/socket |
| Connector (connection type) | for conductor |
| Mismating protection | No |
| Locking of plug-in connection | Locking lever |

## Material data

| | |
|---|---|
| Note (material data) | Information on material data can be found here |
| Color | gray |
| Material group | I |
| Insulation material | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Chrome-nickel spring steel (CrNi) |
| Contact material | Copper alloy |
| Contact plating | Tin |
| Fire load | 0.243 MJ |
| Weight | 15.6 g |

## Environmental requirements

| | |
|---|---|
| Limit temperature range | -60 … +85 °C |

## Commercial data

| | |
|---|---|
| Product Group | 3 (Multi Conn. System) |
| eCl@ss 10.0 | 27-44-03-09 |
| eCl@ss 9.0 | 27-44-03-09 |
| ETIM 7.0 | EC002638 |
| ETIM 6.0 | EC002638 |
| PU (SPU) | 25 Stück |
| Packaging type | Box |
| Country of origin VKOrg Germany | DE |
| GTIN | 4044918340342 |
| Customs tariff number VKOrg Germany | 85366990990 |


Continued on next page

## Approvals / Certificates

### Country specific Approvals

| Approval | Standard | Certificate name |
|---|---|---|
| CB<br>DEKRA Certification B.V. | IEC 61984 | NL-39756 |
| CSA<br>DEKRA Certification B.V. | C22.2 | LR 18677-25 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 61984 | 2190761.01 |

### Ship Approvals

| Approval | Standard | Certificate name |
|---|---|---|
| ABS<br>American Bureau of Shipping | - | 19-HG1869876-PDA |
| BV<br>Bureau Veritas S.A. | IEC 60998 | 11915/D0 BV |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | - | TAE000016Z |

### UL-Approvals

| Approval | Standard | Certificate name |
|---|---|---|
| UL<br>Underwriters Laboratories Inc. | UL 1059 | E45172 |
| UR<br>Underwriters Laboratories Inc. | UL 1977 | E45171 |

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance
231-108/037-000

### Documentation

#### Additional Information

| | | |
|---|---|---|
| Technical Section | 03.04.2019 | pdf<br>1949.09 KB |

### CAD/CAE-Data

#### CAD data

2D/3D Models
231-108/037-000

#### CAE data

EPLAN Data Portal
231-108/037-000

ZUKEN Portal
231-108/037-000


Continued on next page

## 1.1 Counterpart

## 1 Compatible products

### 1.1.1 Male connector/plug



Item no.: 231-608
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 8-pole; 2,50 mm²; gray



Item no.: 231-438/001-000
THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 8-pole; gray



Item no.: 231-138/001-000
THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 8-pole; gray

## 1.2 Optional accessories

### 1.2.1 Cover

#### 1.2.1.1 Cover



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

### 1.2.2 Ferrule

#### 1.2.2.1 Ferrule



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



Item no.: 216-321
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item no.: 216-151
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated



Item no.: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



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



Item no.: 216-322
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item no.: 216-132
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



Item no.: 216-152
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated



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.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item no.: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; 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; uninsulated; electro-tin plated; silver-colored



Item no.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; 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.: 216-222
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.: 216-122
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

 Continued on next page

### 1.2.2.1 Ferrule



Item no.: 216-223
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



Item no.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored



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



Item no.: 216-224
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.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated



Item no.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; 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; uninsulated; electro-tin plated; silver-colored



Item no.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

## 1.2.3 Insulation stop

### 1.2.3.1 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

## 1.2.4 Jumper

### 1.2.4.1 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

## 1.2.5 Marking

### 1.2.5.1 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

## 1.2.6 Strain relief

### 1.2.6.1 Strain relief housing



Item no.: 232-608
Strain relief housing; gray

## 1.2.7 Test and measurement

### 1.2.7.1 Testing accessories



Item no.: 210-136
Test plug; 2 mm Ø; with 500 mm cable; red



Item no.: 231-661
Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray

## 1.2.8 Tool

### 1.2.8.1 Operating tool



Item no.: 231-231
Combination operating tool; red



Item no.: 209-132
Operating tool; for connecting comb-style jumper bar; made of insulating material; 2-way; natural



Item no.: 280-440
Operating tool; made of insulating material; 10-way



Item no.: 209-130
Operating tool; made of insulating material; 1-way; for 264 Series (1-/2-way), 280, 281 Series (up to 3-way); natural



Item no.: 231-291
Operating tool; made of insulating material; 1-way; loose; red



Item no.: 231-131
Operating tool; made of insulating material; 1-way; loose; white



Item no.: 280-432
Operating tool; made of insulating material; 2-way; white



Item no.: 280-433
Operating tool; made of insulating material; 3-way



Item no.: 280-434
Operating tool; made of insulating material; 4-way



Item no.: 280-435
Operating tool; made of insulating material; 5-way; gray



Item no.: 280-436
Operating tool; made of insulating material; 6-way



Item no.: 280-437
Operating tool; made of insulating material; 7-way



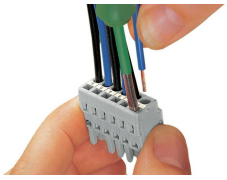
Item no.: 280-438
Operating tool; made of insulating material; 8-way



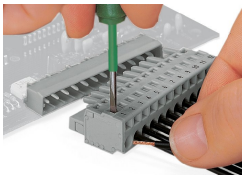
Item no.: 231-159
Operating tool; natural

## Installation notes

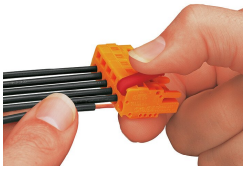
### Conductor termination



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).



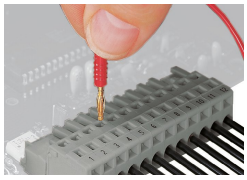
Inserting a conductor via operating tool.

### Coding



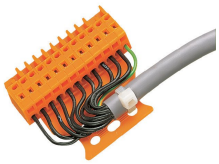
Coding a female connector by removing coding finger(s).

### Testing

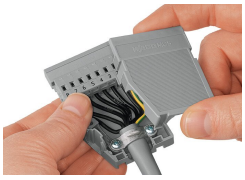


Testing – female connector with CAGE CLAMP®
Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

### Installation

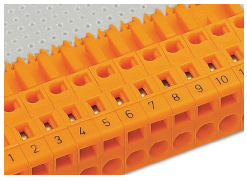


Male connector with strain relief plate



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

### Marking




Labeling via direct marking or self-adhesive strips.