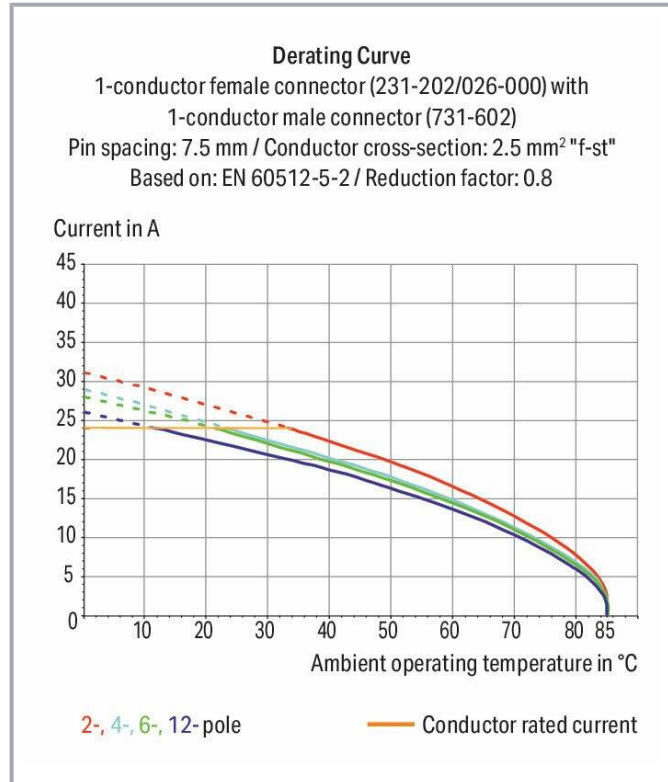
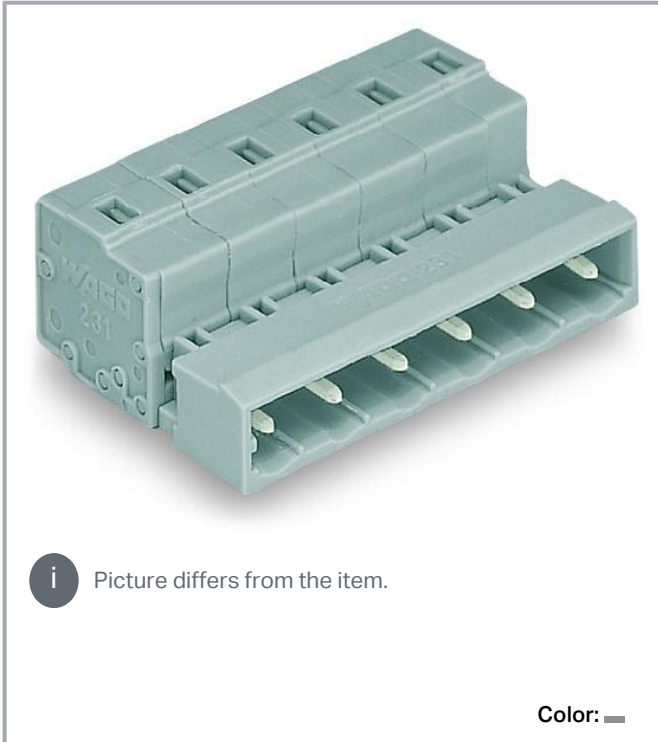


Data sheet | Item number: 731-613

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm;
13-pole; 2,50 mm²; gray



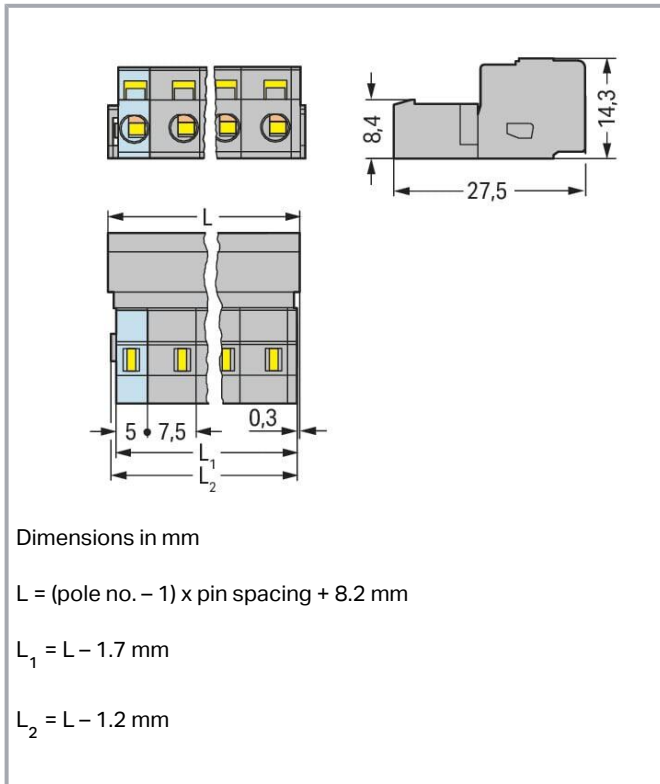
www.wago.com/731-613



Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- With coding fingers

Data

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
Gold-plated or partially gold-plated contact surfaces

Subject to changes. Please also observe the further product documentation!

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) | 500 V |
| Rated impulse voltage (III/3) | 6 kV |
| Rated voltage (III/2) | 630 V |
| Rated impulse voltage (III/2) | 6 kV |
| Nominal voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |
| Rated current | 12 A |
| Legend (ratings) | (III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2 |

Ratings per UL 1059

| 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 1977

| | |
|-------------------------|-------|
| 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

| | |
|-------------------|----|
| Connection points | 13 |
|-------------------|----|

Subject to changes. Please also observe the further product documentation!



| | |
|----------------------------|----|
| Total number of potentials | 13 |
| 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 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 28 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 1.5 mm ² |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm ² |
| Strip length | 8 ... 9 mm / 0.31 ... 0.35 inches |
| Pole number | 13 |
| Conductor entry direction to mating direction | 0° |

Physical data

| | |
|-------------|------------------------|
| Pin spacing | 7.5 mm / 0.295 inches |
| Width | 98.2 mm / 3.866 inches |
| Height | 14.3 mm / 0.563 inches |
| Depth | 27.5 mm / 1.083 inches |

Mechanical Data

| | |
|--------------------------|-----|
| Variable coding | Yes |
| Anti-rotation protection | Yes |

Plug-in connection

| | |
|--------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector (connection type) | for conductor |
| Mismating protection | No |
| Plugging without loss of pin spacing | No |
| Locking of plug-in connection | none |

Material Data

Note (material data)

Subject to changes. Please also observe the further product documentation!



Information on material specifications 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 | Electrolytic copper (E _{Cu}) |
| Contact plating | Tin |
| Fire load | 0.69 MJ |
| Weight | 22.6 g |

Environmental requirements

| | |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
| Processing temperature | -35 ... +60 °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 8.0 | EC002638 |
| ETIM 7.0 | EC002638 |
| PU (SPU) | 10 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4017332748032 |
| Customs tariff number | 85366990990 |

Environmental Product Compliance

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

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---------------------------------------|--------------------------|------------------|
| | CB DEKRA Certification B.V. | IEC 61984 | NL-39756 /A1 |

Subject to changes. Please also observe the further product documentation!



KEMA/KEUR
DEKRA Certification B.V.

EN 61984

71-
121453



UR
Underwriters Laboratories Inc.

UL 1059

E45172




UR
Underwriters Laboratories Inc.







UL 1977

E 45171

Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|---|-----------------------|--------------------------|------------------|
|  | LR Lloyds Register | IEC 61984 | 96/20035 (E5) |

Counterpart

| | | |
|--|---|--|
|  | Item no.2231-213/008-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Snap-in mounting feet; 2,50 mm²; gray | www.wago.com/2231-213/008-000 |
|  | Item no.2231-213/026-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; 2,50 mm²; gray | www.wago.com/2231-213/026-000 |
|  | Item no.2231-213/031-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; 2,50 mm²; gray | www.wago.com/2231-213/031-000 |
|  | Item no.231-213/008-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Snap-in mounting feet; 2,50 mm²; gray | www.wago.com/231-213/008-000 |
|  | Item no.2231-213/037-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Lateral locking levers; 2,50 mm²; gray | www.wago.com/2231-213/037-000 |
|  | Item no.231-213/026-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; 2,50 mm²; gray | www.wago.com/231-213/026-000 |

Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item no.231-213/031-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; 2,50 mm²; gray

www.wago.com/231-213/031-000



Item no.231-213/037-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; Lateral locking levers; 2,50 mm²; gray

www.wago.com/231-213/037-000



Item no.231-213/027-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; 2,50 mm²; gray

www.wago.com/231-213/027-000



Item no.232-743

THT female header; straight; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-743



Item no.232-743/031-000

THT female header; straight; Pin spacing 7.5 mm; 13-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-743/031-000



Item no.232-743/045-000

THT female header; straight; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-743/045-000



Item no.232-743/039-000

THT female header; straight; Pin spacing 7.5 mm; 13-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-743/039-000



Item no.232-743/047-000

THT female header; straight; Pin spacing 7.5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-743/047-000



Item no.232-843

THT female header; angled; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-843



Item no.232-843/031-000

THT female header; angled; Pin spacing 7.5 mm; 13-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-843/031-000



Item no.232-843/039-000

THT female header; angled; Pin spacing 7.5 mm; 13-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-843/039-000



Item no.232-843/047-000

THT female header; angled; Pin spacing 7.5 mm; 13-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-843/047-000

Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



Item no.232-843/045-000
THT female header; angled; Pin spacing 7.5 mm; 13-pole; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-843/045-000



Item no.731-543/031-000
1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole; clamping collar; DIN-35 rail/panel mounting; 2,50 mm²; gray

www.wago.com/731-543/031-000

Optional accessories

Insulation stop

Insulation stop



Item no.: 231-673
Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white

www.wago.com/231-673



Item no.: 231-674
Insulation stop; 0.25 - 0.5 mm²; light gray

www.wago.com/231-674



Item no.: 231-675
Insulation stop; 0.75 - 1 mm²; dark gray

www.wago.com/231-675

Tool

Operating tool



Item no.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

www.wago.com/210-657



Item no.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

www.wago.com/210-720



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

www.wago.com/231-131



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

www.wago.com/231-291

Marking accessories

Marking strip



Item no.: 210-331/750-202
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-331/750-202

Subject to changes. Please also observe the further product documentation!

















**Item no.: 210-332/750-020**

Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/750-020

Ferrule

Ferrule

| | | |
|---|--|--|
|  | Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-101 |
|  | Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-104 |
|  | Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-106 |
|  | Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-102 |
|  | Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated | www.wago.com/216-103 |
|  | Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-123 |
|  | Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-122 |
|  | Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated | www.wago.com/216-124 |
|  | Item no.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-142 |
|  | Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | www.wago.com/216-132 |
|  | Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-121 |
|  | Item no.: 216-143 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-143 |
|  | Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored | www.wago.com/216-131 |
|  | Item no.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | www.wago.com/216-141 |
|  | Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | www.wago.com/216-152 |
|  | Item no.: 216-203 | |

Subject to changes. Please also observe the further product documentation!

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; redwww.wago.com/216-203**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; graywww.wago.com/216-202**Item no.: 216-151**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-151**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; blackwww.wago.com/216-204**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-coloredwww.wago.com/216-144**Item no.: 216-201**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; whitewww.wago.com/216-201**Item no.: 216-223**Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; redwww.wago.com/216-223**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; whitewww.wago.com/216-241**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; graywww.wago.com/216-242**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; graywww.wago.com/216-222**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; whitewww.wago.com/216-221**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; blackwww.wago.com/216-224**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; redwww.wago.com/216-243**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; blackwww.wago.com/216-244**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; redwww.wago.com/216-263**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; blackwww.wago.com/216-264**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; blackwww.wago.com/216-284**Item no.: 216-262**

Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden








Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



| | | |
|--|--|--|
|  | Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | www.wago.com/216-262 |
|  | Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-301 |
|  | Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-321 |
|  | Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise | www.wago.com/216-322 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise | www.wago.com/216-302 |
| Cover | | |
| Cover | | |
|  | Item no.: 231-668 Lockout caps; for covering unused clamping units; gray | www.wago.com/231-668 |
| Coding | | |
| Coding | | |
|  | Item no.: 231-130 Coding key; snap-on type; light gray | www.wago.com/231-130 |

Downloads

Documentation

Additional Information

| | | | |
|------------------------|------------|--------|----------|
| Technical Section | 2019 Apr 3 | pdf | Download |
| Technical explanations | | 2.0 MB | |

CAD/CAE-Data

CAD data

| | | |
|----------------------|-----|----------|
| 2D/3D Models 731-613 | URL | Download |
|----------------------|-----|----------|

CAE data

| | | |
|---------------------------|-----|----------|
| EPLAN Data Portal 731-613 | URL | Download |
|---------------------------|-----|----------|

| | | |
|----------------------|-----|----------|
| ZUKEN Portal 731-613 | URL | Download |
|----------------------|-----|----------|

Environmental Product Compliance

Subject to changes. Please also observe the further product documentation!

WAGO GmbH & Co. KG
 Hansastr. 27
 32423 Minden
 Phone: +49571 887-0 | Fax: +49571 887-169
 Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
 We are always happy to take your call at +49 (571) 887-44222.

Compliance Search

Environmental Product Compliance 731-613

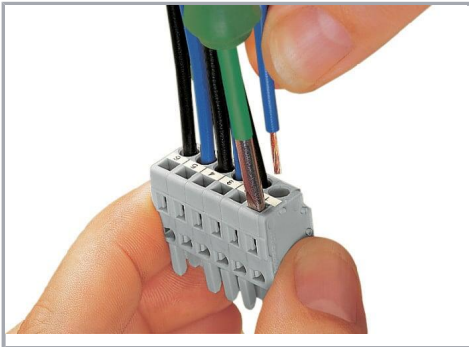
[URL](#)

[Download](#)

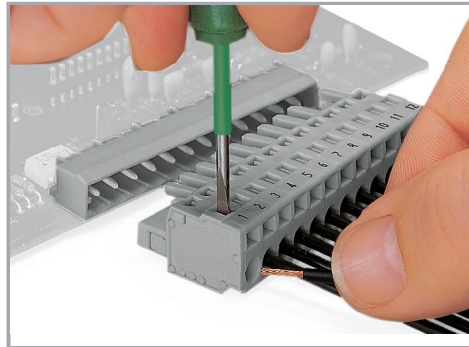
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 13-pole;
2,50 mm²; gray

Installation Notes

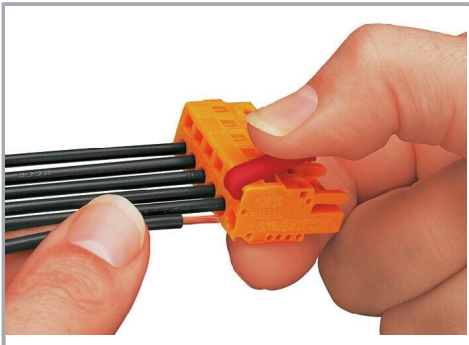
Conductor termination



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.



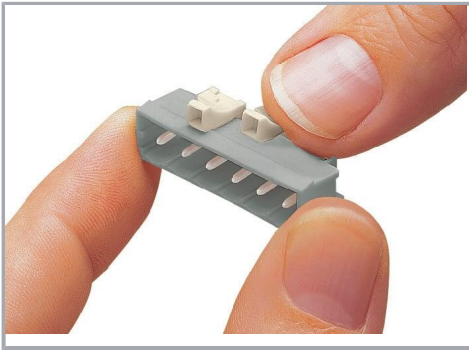
Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).



Inserting a conductor via operating tool.

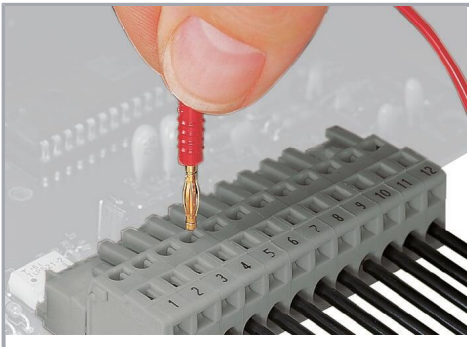
Coding

Subject to changes. Please also observe the further product documentation!



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

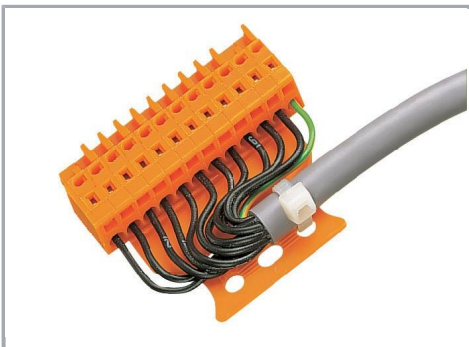
Testing



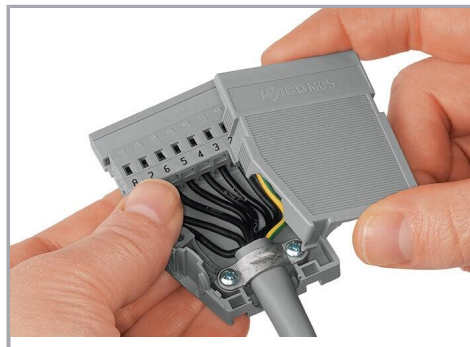
Testing – female connector with CAGE CLAMP®

Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

Installation



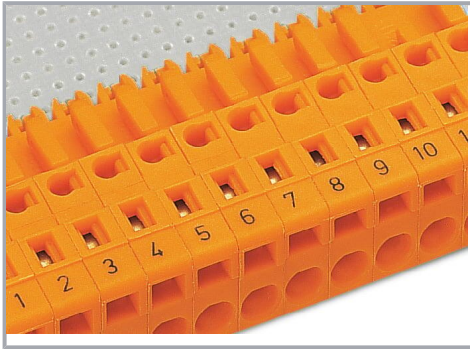
Male connector with strain relief plate



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

Subject to changes. Please also observe the further product documentation!

Marking



Labeling via direct marking or self-adhesive strips.

Product family

MCS MIDI Classic

[Show all products from the family](#)

Subject to changes. Please also observe the further product documentation!