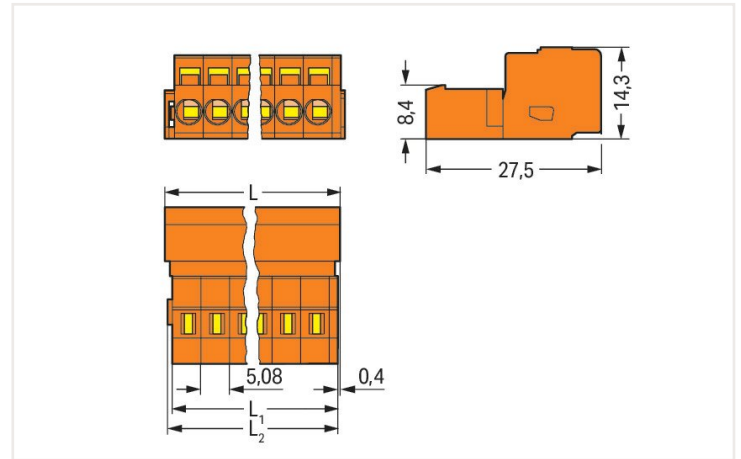
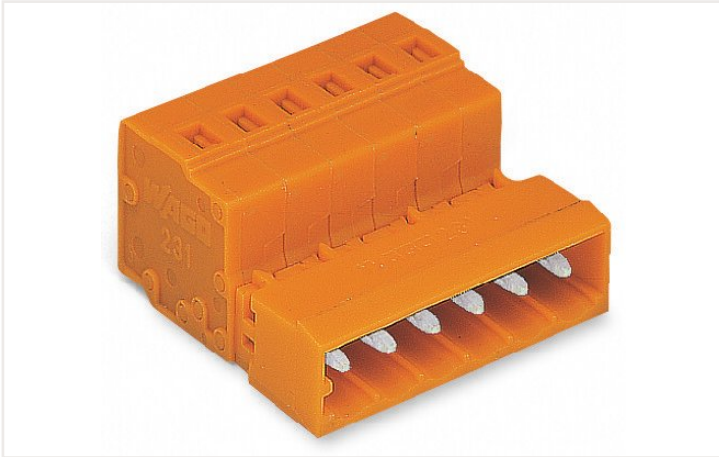


Data sheet | Item number: 231-634

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 4-pole; 2,50 mm²; orange

<https://www.wago.com/231-634>



Dimensions in mm

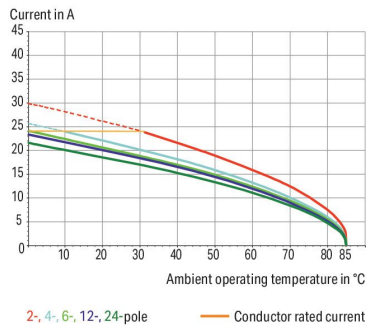
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L1 = L - 1.7 \text{ mm}$

$L2 = L - 1.2 \text{ mm}$

Derating Curve

1-conductor female connector (231-102/026-000) with
1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "F-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



- 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

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:

Other pole numbers
Gold-plated or partially gold-plated contact surfaces
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 | 12 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

| | |
|----------------------------|---|
| Connection points | 4 |
| Total number of potentials | 4 |
| 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 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 | 4 |
| Conductor entry direction to mating direction | 0° |

Physical data

| | |
|-------------|-------------------------|
| Pin spacing | 5.08 mm / 0.2 inches |
| Width | 23.52 mm / 0.926 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 |

Material data

| | |
|-----------------------------|--|
| Note (material data) | Information on material data can be found here |
| Color | orange |
| 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 | 0.11 MJ |
| Weight | 6.5 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) | 100 Stück |
| Packaging type | Box |
| Country of origin VKOrg Germany | DE |
| GTIN | 4044918259811 |
| Customs tariff number VKOrg Germany | 85366990990 |

Approvals and certificates

General approvals



| Approval | Standard | Certificate name |
|---------------------------------------|-----------|------------------|
| CB DEKRA Certification B.V. | IEC 61984 | NL-39756/A1 |
| CSA DEKRA Certification B.V. | C22.2 | 1466354 |
| KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 71-121453 |
| UL UL International Germany GmbH | UL 1977 | E45171 |
| UR Underwriters Laboratories Inc. | UL 1059 | E45172 |

Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate name |
|-------------------------------|----------|------------------|
| Railway WAGO GmbH & Co. KG | - | Railway Ready |

Approvals for marine applications



| Approval | Standard | Certificate name |
|---|-----------|------------------|
| ABS American Bureau of Ship- ping | - | 19-HG1869876-PDA |
| DNV GL Det Norske Veritas, Ger- manischer Lloyd | - | TAE000016Z |
| LR Lloyds Register | IEC 61984 | 96/20035 (E5) |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 231-634



Documentation

Additional Information

Technical Section
03.04.2019
pdf
1949.09 KB



CAD/CAE-Data

| | |
|----------------------|---------------------------|
| CAD data | CAE data |
| 2D/3D Models 231-634 | EPLAN Data Portal 231-634 |
| | ZUKEN Portal 231-634 |

1 Compatible products

1.1 System counterpart

1.1.1 Female connector/socket

| | | | |
|--|---|--|--|
| Item no.: 232-304/026-000 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; 2,50 mm ² ; orange | Item no.: 232-404/026-000 1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; 2,50 mm ² ; orange | Item no.: 231-304/026-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; 2,50 mm ² ; orange | Item no.: 231-304/031-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; clamping collar; 2,50 mm ² ; orange |
| Item no.: 231-304/037-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; Lateral locking levers; 2,50 mm ² ; orange | Item no.: 231-304/008-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; Snap-in mounting feet; 2,50 mm ² ; orange | Item no.: 231-304/102-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; with integrated end plate; 2,50 mm ² ; orange | Item no.: 2231-304/026-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; 2,50 mm ² ; orange |
| Item no.: 2231-304/031-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; clamping collar; 2,50 mm ² ; orange | Item no.: 2231-304/037-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; Lateral locking levers; 2,50 mm ² ; orange | Item no.: 2231-304/008-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; Snap-in mounting feet; 2,50 mm ² ; orange | Item no.: 2231-304/102-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; with integrated end plate; 2,50 mm ² ; orange |
| Item no.: 231-2304/037-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; Lateral locking levers; 2,50 mm ² ; orange | Item no.: 231-2304/026-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm ² ; Pin spacing 5.08 mm; 4-pole; with integrated end plate; 2,50 mm ² ; orange | Item no.: 232-264 THT female header; angled; Pin spacing 5.08 mm; 4-pole; 0.6 x 1.0 mm solder pin; orange | Item no.: 232-264/031-000 THT female header; angled; Pin spacing 5.08 mm; 4-pole; clamping collar; 0.6 x 1.0 mm solder pin; orange |
| Item no.: 232-264/039-000 THT female header; angled; Pin spacing 5.08 mm; 4-pole; Locking lever; 0.6 x 1.0 mm solder pin; orange | Item no.: 232-264/047-000 THT female header; angled; Pin spacing 5.08 mm; 4-pole; Spacer flange; 0.6 x 1.0 mm solder pin; orange | Item no.: 232-164 THT female header; straight; Pin spacing 5.08 mm; 4-pole; 0.6 x 1.0 mm solder pin; orange | Item no.: 232-164/031-000 THT female header; straight; Pin spacing 5.08 mm; 4-pole; clamping collar; 0.6 x 1.0 mm solder pin; orange |
| Item no.: 232-164/039-000 THT female header; straight; Pin spacing 5.08 mm; 4-pole; Locking lever; 0.6 x 1.0 mm solder pin; orange | Item no.: 232-164/047-000 THT female header; straight; Pin spacing 5.08 mm; 4-pole; Spacer flange; 0.6 x 1.0 mm solder pin; orange | | |

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.: 231-669

Lockout caps; for covering unused clamping units; orange

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.: 216-321

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

1.2.3.1 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

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.: 210-331/508-103

Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item no.: 210-332/508-202

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.: 210-332/508-205

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.: 210-331/508-104

Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item no.: 210-332/508-204

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.: 210-332/508-206

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 Strain relief

1.2.7.1 Strain relief housing



Item no.: 232-634

Strain relief housing; orange

1.2.8 Tool

1.2.8.1 Operating tool



Item no.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



Item no.: 210-657

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured



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

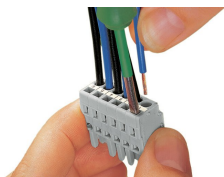


Item no.: 280-438

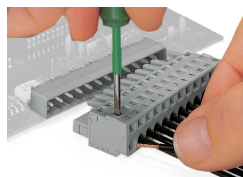
Operating tool; made of insulating material; 8-way

Installation notes

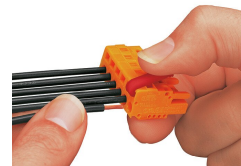
Conductor termination



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.

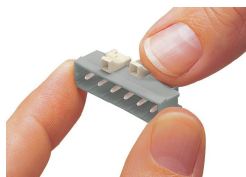


Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).



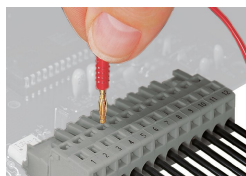
Inserting a conductor via operating tool.

Coding



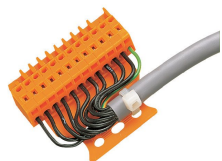
Coding a male header – fitting coding key(s).

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

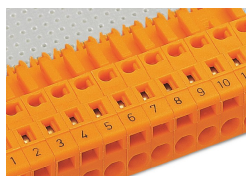


Male connector with strain relief plate



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

Marking



Labeling via direct marking or self-adhesive strips.