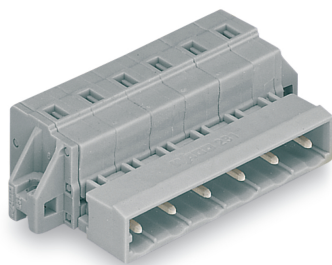


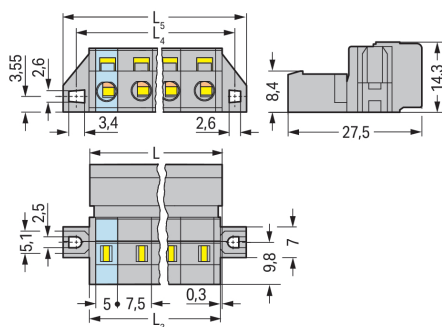
## Data Sheet | Item Number: 731-606/019-000

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 6-pole;  
clamping collar; 2,50 mm²; gray

<https://www.wago.com/731-606/019-000>



Color: ■ gray



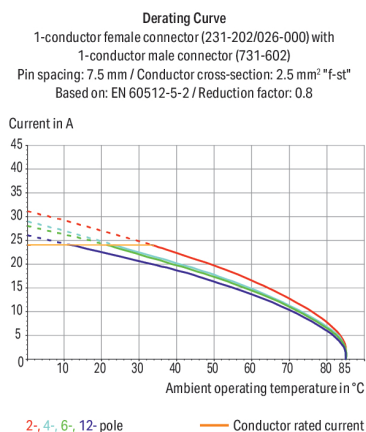
Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$   
 $L_3 = L - 0.2 \text{ mm}$   
 $L_4 = L_3 + 5.8 \text{ mm}$   
 $L_5 = L_3 + 11.8 \text{ mm}$

Male connector, 731 Series, 0° conductor exit to connection direction

Our male connector (item number 731-606/019-000) simplifies electrical installations. Conductors should only be connected to this male connector if their strip length is between 8 and 9 mm. This product features one conductor terminal and utilizes CAGE CLAMP®. Our reliable and maintenance-free CAGE CLAMP® connection makes it easy to connect all conductor types without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (57.3 x 14.3 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                 |  | 500 V          | 630 V | 1000 V |
| Rated impulse withstand voltage |  | 6 kV           | 6 kV  | 6 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                                    | 6                                          |  |
| Total number of potentials                        | 6                                          |  |
| 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                                       | 6                                          |  |
| Conductor entry direction to mating direction     | 0 °                                        |  |

| Physical data |                        |
|---------------|------------------------|
| Pin spacing   | 7.5 mm / 0.295 inches  |
| Width         | 57.3 mm / 2.256 inches |
| Height        | 14.3 mm / 0.563 inches |
| Depth         | 27.5 mm / 1.083 inches |



| Mechanical data                         |                                         |
|-----------------------------------------|-----------------------------------------|
| Variable coding                         | Yes                                     |
| Mounting type                           | Mounting flange                         |
| Mounting type                           | Feed-through mounting<br>Panel 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                          | 0.24 MJ                                                                  |
| Weight                             | 11.9 g                                                                   |

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

| Environmental Testing                                                                               |                                                    |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Test specification:<br>Railway applications –<br>Rolling stock –<br>Electronic equipment            | DIN EN 50155 (VDE 0115-200):2022-06                |
| Test procedure:<br>Railway applications –<br>Rolling stock equipment –<br>Vibration and shock tests | DIN EN 61373 (VDE 0115-0106):2011-04               |
| Spectrum/Mounting location                                                                          | Service life test, Category 1, Class A/B           |
| Functional test with noise-like oscillations                                                        | Test passed according to Section 8 of the standard |
| Frequency                                                                                           | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz   |
| Acceleration                                                                                        | 0.101g (highest test level used for all axes)      |
| Test duration per axis                                                                              | 10 min.                                            |
| Test directions                                                                                     | X, Y and Z axes                                    |
| Monitoring of contact faults and interruptions                                                      | Passed                                             |
| Voltage drop measurement before and after each axis                                                 | Passed                                             |
| Simulated service life test through increased levels of noise-like oscillations                     | Test passed according to Section 9 of the standard |
| Frequency                                                                                           | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz   |
| Acceleration                                                                                        | 0.572g (highest test level used for all axes)      |
| Test duration per axis                                                                              | 5 h                                                |
| Test directions                                                                                     | X, Y and Z axes                                    |
| Extended testing: Monitoring of contact faults and interruptions                                    | Passed                                             |
| Extended testing: Voltage drop measurement before and after each axis                               | Passed                                             |



| Environmental Testing                                                 |                                                     |
|-----------------------------------------------------------------------|-----------------------------------------------------|
| Shock test                                                            | Test passed according to Section 10 of the standard |
| Shock pulse form                                                      | Half sine                                           |
| Acceleration                                                          | 5g (highest test level used for all axes)           |
| Shock duration                                                        | 30 ms                                               |
| Number of shocks (per axis)                                           | 3 pos. und 3 neg.                                   |
| Test directions                                                       | X, Y and Z axes                                     |
| Extended testing: Monitoring of contact faults and interruptions      | Passed                                              |
| Extended testing: Voltage drop measurement before and after each axis | Passed                                              |
| Vibration and shock stress for rolling stock equipment                | Passed                                              |

| Commercial data       |                        |  |
|-----------------------|------------------------|--|
| Product Group         | 3 (Multi Conn. System) |  |
| PU (SPU)              | 25 pcs                 |  |
| Packaging type        | Box                    |  |
| Country of origin     | DE                     |  |
| GTIN                  | 4044918288576          |  |
| 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                                                                                                                                                                                                                                          |           |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|
|    |           |                  |
| Approval                                                                                                                                                                                                                                                   | Standard  | Certificate Name |
| CB<br>DEKRA Certification B.V.                                                                                                                                                                                                                             | IEC 61984 | NL-113351        |
| KEMA/KEUR<br>DEKRA Certification B.V.                                                                                                                                                                                                                      | EN 61984  | 71-130478 REV.1  |
| UR<br>Underwriters Laboratories Inc.                                                                                                                                                                                                                       | UL 1977   | E 45171          |
| UR<br>Underwriters Laboratories Inc.                                                                                                                                                                                                                       | UL 1059   | E45172           |

| Declarations of conformity and manufacturer's declarations                          |          |                  |
|-------------------------------------------------------------------------------------|----------|------------------|
|  |          |                  |
| Approval                                                                            | Standard | Certificate Name |
| Railway<br>WAGO GmbH & Co. KG                                                       | -        | Railway Ready    |



Approvals for marine applications



| Approval                                | Standard  | Certificate Name  |
|-----------------------------------------|-----------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping | -         | 24-0095975-PDA    |
| BV<br>Bureau Veritas S.A.               | IEC 60998 | 11915/E0 BV       |
| DNV<br>DNV GL SE                        | -         | TAE000016Z        |
| PRS<br>Polski Rejestr Statków           | -         | TE/1095/880590/23 |

Downloads

Environmental Product Compliance

| Compliance Search                                      |
|--------------------------------------------------------|
| Environmental Product<br>Compliance<br>731-606/019-000 |



Documentation

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



CAD/CAE-Data

| CAD data                        |
|---------------------------------|
| 2D/3D Models<br>731-606/019-000 |



| CAE data                             |
|--------------------------------------|
| EPLAN Data Portal<br>731-606/019-000 |



|                                 |
|---------------------------------|
| ZUKEN Portal<br>731-606/019-000 |
|---------------------------------|



1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: 231-206/026-000  
1-conductor female connector; CAGE  
CLAMP®; 2.5 mm²; Pin spacing 7.5 mm; 6-  
pole; gray



Item No.: 232-836  
THT female header; angled; Pin spacing  
7.5 mm; 6-pole; 0.6 x 1.0 mm solder pin;  
gray



Item No.: 232-736  
THT female header; straight; Pin spacing  
7.5 mm; 6-pole; 0.6 x 1.0 mm solder pin;  
gray



1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding



[Item No.: 231-130](#)  
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; un-insulated; 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; un-insulated; 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; un-insulated; electro-tin plated



[Item No.: 216-143](#)  
Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



[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; black



[Item No.: 216-264](#)  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



[Item No.: 216-284](#)  
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; 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 Installation

1.2.4.1 Mounting accessories



Item No.: 231-295  
Screw with nut



Item No.: 231-195  
Screw with nut; M2x12; for fixing element



Item No.: 209-147  
Self-tapping screw



Item No.: 231-194  
Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

1.2.5 Insulation stop

1.2.5.1 Insulation stop



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



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



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

1.2.6 Marking

1.2.6.1 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



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

1.2.7 Tool

1.2.7.1 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



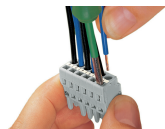
Item No.: 231-291  
Operating tool; made of insulating material; 1-way; loose; red



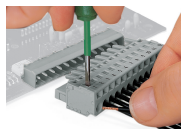
Item No.: 231-131  
Operating tool; made of insulating material; 1-way; loose; white

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.

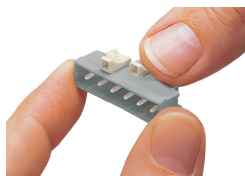


Inserting a conductor into CAGE CLAMP® unit via operating tool (231-291).



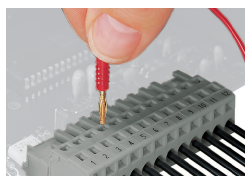
Inserting a conductor via operating tool.

## Coding



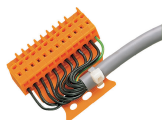
Coding a male header – fitting coding key(s).

## Testing

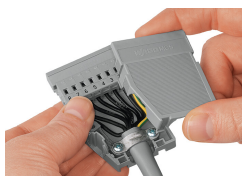


Testing – female connector with CAGE CLAMP®  
Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

## 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.