

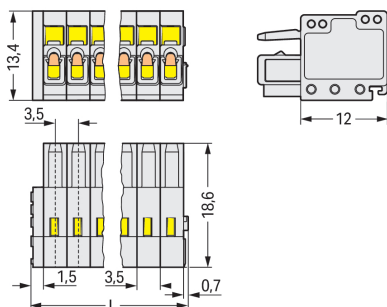
## Data Sheet | Item Number: 734-104

1-conductor female connector; CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 4-pole;  
100% protected against mismating; light gray

<https://www.wago.com/734-104>



Color: ■ light gray



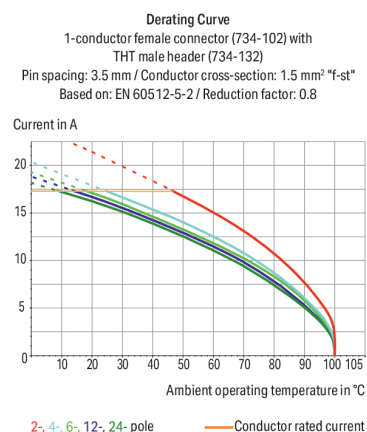
Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 2.2 \text{ mm}$

Female connector, 734 Series, operating tool

Our female connector (item number 734-104) ensures effortless electrical installations. Conductors should only be connected to this female connector if their strip length is between 6 and 7 mm. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our tried-and-tested universal connection known as CAGE CLAMP® is industry-leading when it comes to connection technology and electrical interconnections. The item's dimensions are (16.2 x 13.4 x 18.6) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 1.5 mm<sup>2</sup>.

The contact surface is coated with tin.





| Notes              |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety Information | The MCS – <i>MULTI CONNECTION SYSTEM</i> 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 |        |  | Approvals per |       | UL 1059 |       |
| Overvoltage category            | III    | III            | II     |  | Use group     | B     | C       | D     |
| Pollution degree                | 3      | 2              | 2      |  | Rated voltage | 300 V | -       | 300 V |
| Nominal voltage                 | 160 V  | 160 V          | 320 V  |  | Rated current | 10 A  | -       | 10 A  |
| Rated impulse withstand voltage | 2.5 kV | 2.5 kV         | 2.5 kV |  |               |       |         |       |
| Rated current                   | 10 A   | 10 A           | 10 A   |  |               |       |         |       |
| Approvals per                   |        | CSA            |        |  |               |       |         |       |
| Use group                       | B      | C              | D      |  |               |       |         |       |
| Rated voltage                   | 300 V  | -              | 300 V  |  |               |       |         |       |
| Rated current                   | 10 A   | -              | 10 A   |  |               |       |         |       |

| Connection Data                                   |                                                                                                                                  |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Clamping units                                    | 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                                                                                                                   |
| Actuation direction 1                             | Operation parallel to conductor entry                                                                                            |
| Actuation direction 2                             | Operation perpendicular to conductor entry                                                                                       |
| Solid conductor                                   | 0.08 ... 1.5 mm² / 28 ... 14 AWG                                                                                                 |
| Fine-stranded conductor                           | 0.08 ... 1.5 mm² / 28 ... 14 AWG                                                                                                 |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm²                                                                                                                 |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm²                                                                                                                 |
| Note (conductor cross-section)                    | Terminating 1.5 mm² conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row. |
| Strip length                                      | 6 ... 7 mm / 0.24 ... 0.28 inches                                                                                                |
| Pole number                                       | 4                                                                                                                                |
| Conductor entry direction to mating direction     | 0 °                                                                                                                              |

| Physical data |                        |
|---------------|------------------------|
| Pin spacing   | 3.5 mm / 0.138 inches  |
| Width         | 16.2 mm / 0.638 inches |
| Height        | 13.4 mm / 0.528 inches |
| Depth         | 18.6 mm / 0.732 inches |



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

| Plug-in connection                 |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector (connection type)        | for conductor           |
| Mismating protection               | Yes                     |

| Material data                      |                                                                          |
|------------------------------------|--------------------------------------------------------------------------|
| Note (material data)               | <a href="#">Information on material specifications can be found here</a> |
| Color                              | light 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                   | Copper alloy                                                             |
| Contact Plating                    | Tin                                                                      |
| Fire load                          | 0.049 MJ                                                                 |
| Weight                             | 3.2 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                                              |
| 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                                               |



| Environmental Testing                                                 |                   |
|-----------------------------------------------------------------------|-------------------|
| 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)              | 100 pcs                |  |
| Packaging type        | Box                    |  |
| Country of origin     | DE                     |  |
| GTIN                  | 4044918492478          |  |
| Customs tariff number | 85366990990            |  |

| 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                                                                                                                                                                                                                                          |          |                  | Declarations of conformity and manufacturer's declarations                          |          |                  |
|    |          |                  |  |          |                  |
| Approval                                                                                                                                                                                                                                                   | Standard | Certificate Name | Approval                                                                            | Standard | Certificate Name |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | EN 61984 | 2169534.02       | Railway<br>WAGO GmbH & Co. KG                                                       | -        | Railway Ready    |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | EN 61984 | nl-54190         |                                                                                     |          |                  |
| CSA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | C22.2    | 1465035          |                                                                                     |          |                  |
| UL<br>Underwriters Laboratories Inc.                                                                                                                                                                                                                       | UL 1977  | E 45171          |                                                                                     |          |                  |



Approvals for marine applications



| Approval                                | Standard  | Certificate Name  |
|-----------------------------------------|-----------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping | -         | 24-0095975-PDA    |
| DNV<br>DNV GL SE                        | -         | TAE000016Z        |
| LR<br>Lloyds Register                   | IEC 61984 | 96/20035 (E5)     |
| PRS<br>Polski Rejestr Statków           | -         | TE/1095/880590/23 |

Downloads

Environmental Product Compliance

| Compliance Search                           |
|---------------------------------------------|
| Environmental Product<br>Compliance 734-104 |



Documentation

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



CAD/CAE-Data

| CAD data             |
|----------------------|
| 2D/3D Models 734-104 |



| CAE data                     |
|------------------------------|
| EPLAN Data Portal<br>734-104 |
| ZUKEN Portal 734-104         |



1 Compatible Products

1.1 System counterpart

1.1.1 Distribution connector



**Item No.: 734-364**  
2-conductor combi strip; 100% protected  
against mismatching; 1.5 mm<sup>2</sup>; 4-pole; Pin  
spacing 3.5 mm; light gray



**Item No.: 734-364/037-000**  
2-conductor combi strip; 100% protected  
against mismatching; 1.5 mm<sup>2</sup>; Locking lever;  
4-pole; Pin spacing 3.5 mm; light gray



**Item No.: 734-364/008-000**  
2-conductor combi strip; 100% protected  
against mismatching; Snap-in mounting feet;  
1.5 mm<sup>2</sup>; 4-pole; Pin spacing 3.5 mm; light  
gray



1.1.2 Male connector/plug

|                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 734-304/019-000</b><br>1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; 100% protected against mismatching; clamping collar; light gray | <br><b>Item No.: 734-304/018-000</b><br>1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; 100% protected against mismatching; DIN-35 rail/panel mounting; Snap-in mounting feet; light gray | <br><b>Item No.: 734-304</b><br>1-conductor male connector; CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; 100% protected against mismatching; light gray                                 | <br><b>Item No.: 734-164/105-604/997-405</b><br>THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 4-pole; black |
| <br><b>Item No.: 734-164/105-604</b><br>THR male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 4-pole; black                       | <br><b>Item No.: 734-134/105-604/997-405</b><br>THR male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; in tape-and-reel packaging; Pin spacing 3.5 mm; 4-pole; black                   | <br><b>Item No.: 734-134/105-604</b><br>THR male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 4-pole; black                            | <br><b>Item No.: 734-404</b><br>THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 8-pole; light gray                            |
| <br><b>Item No.: 734-404/001-000</b><br>THT double-deck male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 8-pole; light gray      | <br><b>Item No.: 734-164</b><br>THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.5 mm; 4-pole; light gray                                                            | <br><b>Item No.: 734-134/010-000</b><br>THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Gold-plated contacts; Pin spacing 3.5 mm; 4-pole; light gray | <br><b>Item No.: 734-134</b><br>THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 4-pole; light gray                                      |
| <br><b>Item No.: 734-134/046-000</b><br>THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.5 mm; 4-pole; light gray                |                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                        |

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

|                                                                                                                                                                                                 |                                                                                                                                                                                                           |                                                                                                                                                                                                           |                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow | <br><b>Item No.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored | <br><b>Item No.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise | <br><b>Item No.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; uninsulated; electro-tin plated                 |
| <br><b>Item No.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white   | <br><b>Item No.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored  | <br><b>Item No.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray            | <br><b>Item No.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; silver-colored |
| <br><b>Item No.: 216-223</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red       | <br><b>Item No.: 216-123</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored    | <br><b>Item No.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black            | <br><b>Item No.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated                  |

1.2.2 Insulation stop

1.2.2.1 Insulation stop



**Item No.: 734-671**  
Insulation stop; 0.08 - 0.2 mm² "s" (0.14 mm² "f-st"); 8 pieces/strip; light gray

1.2.3 Marking

1.2.3.1 Marking strip



**Item No.: 210-332/350-202**  
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/350-204**  
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



**Item No.: 210-332/350-206**  
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (240x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.2.4 Strain relief

1.2.4.1 Strain relief housing



**Item No.: 734-604**  
Strain relief housing; for female and male connectors; 2 parts; Pin spacing 3.5 mm; 4-pole; light gray

1.2.4.2 Strain relief plate



**Item No.: 734-127**  
Strain relief plate; for female and male connectors; 6 mm wide; 1 part; Pin spacing 3.5 mm; light gray

1.2.5 Test and measurement

1.2.5.1 Testing accessories



**Item No.: 735-500**  
WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

1.2.6 Tool

1.2.6.1 Operating tool



**Item No.: 734-190**  
Combination operating tool; natural



**Item No.: 734-231**  
Operating tool; black



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



**Item No.: 210-647**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured



**Item No.: 210-251**  
Operating tool; for MCS MICRO and MINI with CAGE CLAMP® connection; yellow



**Item No.: 210-250**  
Operating tool; for MCS MINI and MIDI with CAGE CLAMP® connection; red



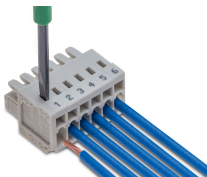
**Item No.: 734-191**  
Operating tool; made of insulating material; 1-way; loose; black



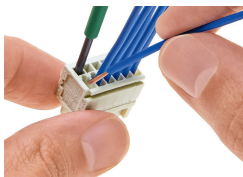
**Item No.: 734-230**  
Operating tool; made of insulating material; 1-way; white

Installation Notes

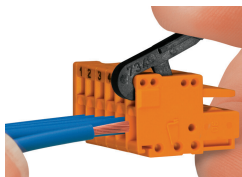
Conductor termination



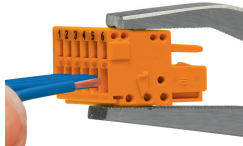
Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



Inserting a conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

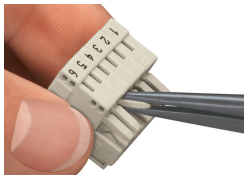


Inserting a conductor into CAGE CLAMP® unit via operating tool (734-191).



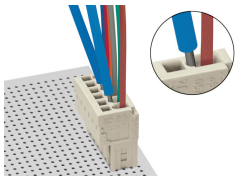
Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).

Coding



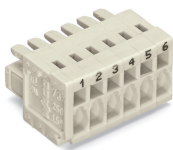
Coding a female connector – removing coding finger(s).

Testing



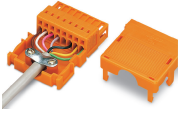
Testing via 1 mm Ø test pin (735-500) – CAGE CLAMP® connection – touch contact.

Marking



Labeling via direct marking or self-adhesive strips.

## Installation



Strain relief housing for 734 Series Male and Female Connectors with CAGE CLAMP® connection