

**Data sheet | Item number: 734-220**

1-conductor female plug; 100% protected against mismatching; 1.5 mm<sup>2</sup>; Pin spacing 3.81 mm; 20-pole; 1,50 mm<sup>2</sup>; orange

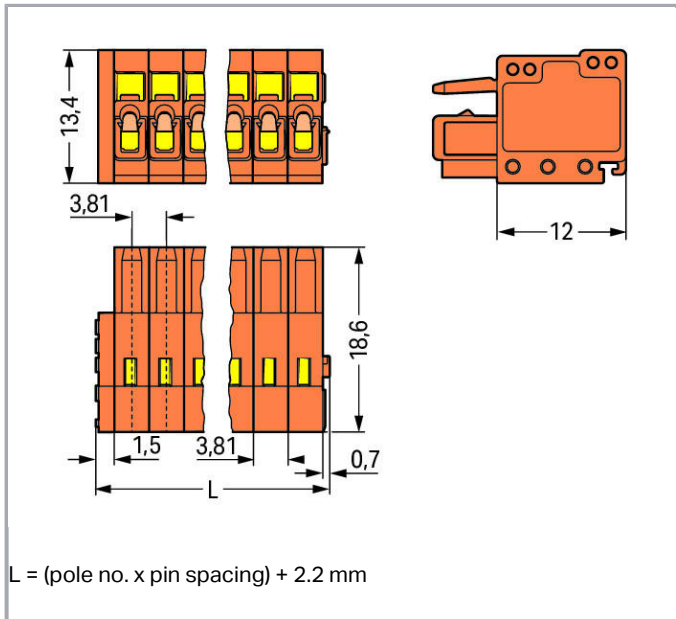
[www.wago.com/734-220](http://www.wago.com/734-220)



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

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### Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for field assembly
- 100% protected against mismatching
- Coding via coding fingers

### Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall 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.

### Data

#### Electrical data

#### Ratings per IEC/EN 60664-1

| Ratings per                     | IEC/EN 60664-1 |
|---------------------------------|----------------|
| Rated voltage (III / 3)         | 160 V          |
| Rated impulse voltage (III / 3) | 2.5 kV         |
| Rated voltage (III / 2)         | 160 V          |
| Rated impulse voltage (III / 2) | 2.5 kV         |

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|                                |  |
|--------------------------------|--|
| Rated voltage (II / 2)         | 320 V  |
| Rated impulse voltage (II / 2) | 2.5 kV   |
| Rated current                  | 10 A   |
| Legend (ratings)               | (III / 2) $\triangleq$ Overvoltage category III / Pollution degree 2 |

### Approvals per UL 1059

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

### Approvals per CSA

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

### Connection data

|   |  |
|---|--|
| Connection technology                                       | CAGE CLAMP <sup>®</sup>  |
| Actuation type  | Operating tool   |
| Solid conductor   | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG   |
| Fine-stranded conductor                                     | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG   |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 ... 1.5 mm <sup>2</sup>   |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 1.5 mm <sup>2</sup>   |
| Strip length  | 6 ... 7 mm / 0.24 ... 0.28 inch  |
| No. of poles  | 20   |
| Total number of connection points                           | 20   |
| Total number of potentials                                  | 20   |
| Number of connection types                                  | 1  |
| Number of levels  | 1  |
| Note (conductor cross-section)                              | Terminating 1.5 mm <sup>2</sup> conductors is possible; however insulation diameter does not allow clamping units to be terminated in a row. |
| Conductor entry direction to mating direction               | 0°   |

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## Geometrical Data

|             |                      |
|-------------|----------------------|
| Pin spacing | 3.81 mm / 0.15 inch  |
| Width       | 78.4 mm / 3.087 inch |
| Height      | 13.4 mm / 0.528 inch |
| Depth       | 18.6 mm / 0.732 inch |

## Plug connection

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

## Material Data

|                             |                                   |
|-----------------------------|-----------------------------------|
| Color                       | orange                            |
| Material group              | I                                 |
| Insulating material         | Polyamide 66 (PA 66)              |
| Flammability class per UL94 | V0                                |
| Clamping spring material    | Chrome nickel spring steel (CrNi) |
| Contact material            | Copper alloy                      |
| Contact plating             | tin-plated                        |
| Fire load                   | 0.286 MJ                          |
| Weight                      | 16.5 g                            |

## Environmental Requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +100 °C |
|-------------------------|-----------------|

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Packaging type     | BOX                    |
| Country of origin  | DE                     |
| GTIN               | 4044918497749          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates



### Country specific Approvals

Certificate



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| Logo   | Approval                                     | Additional Approval Text | name          |
|--|--|--------------------------|---------------|
|  | <b>CB</b><br>DEKRA Certification B.V.        | EN 61984                 | NL-54190      |
|  | <b>CSA</b><br>DEKRA Certification B.V.       | C22.2                    | 1465035       |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 71-<br>105522 |

## Ship Approvals

| Logo   | Approval  | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|    | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z       |
|  | <b>LR</b><br>Lloyds Register                            | IEC 61984                | 96/20035<br>(E5) |

## UL-Approvals

| Logo   | Approval                                    | Additional Approval Text | Certificate name    |
|--|---|--------------------------|---------------------|
|  | <b>UL</b><br>Underwriters Laboratories Inc. | UL 1977                  | 20150318-<br>E45171 |
|  | <b>UR</b><br>Underwriters Laboratories Inc. | UL 1059                  | 20190122-<br>E45172 |

## Counterpart



Item no.734-250

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.81 mm; 20-pole; orange

[www.wago.com/734-250](http://www.wago.com/734-250)

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

**Item no.734-250/046-000**

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 3.81 mm; 20-pole; orange

[www.wago.com/734-250/046-000](http://www.wago.com/734-250/046-000)**Item no.734-350**

1-conductor male connector; 100% protected against mismatching; 1.5 mm²; Pin spacing 3.81 mm; 20-pole; 1,50 mm²; orange

[www.wago.com/734-350](http://www.wago.com/734-350)**Item no.734-350/018-000**

1-conductor male connector; 100% protected against mismatching; Snap-in mounting feet; 1.5 mm²; Pin spacing 3.81 mm; 20-pole; 1,50 mm²; orange

[www.wago.com/734-350/018-000](http://www.wago.com/734-350/018-000)**Item no.734-280**

THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 3.81 mm; 20-pole; orange

[www.wago.com/734-280](http://www.wago.com/734-280)**Item no.734-350/019-000**

1-conductor male connector; 100% protected against mismatching; clamping collar; 1.5 mm²; Pin spacing 3.81 mm; 20-pole; 1,50 mm²; orange

[www.wago.com/734-350/019-000](http://www.wago.com/734-350/019-000)

## Compatible products

### Marking accessories

**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

[www.wago.com/210-332/350-202](http://www.wago.com/210-332/350-202)**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

[www.wago.com/210-332/350-204](http://www.wago.com/210-332/350-204)**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

[www.wago.com/210-332/350-206](http://www.wago.com/210-332/350-206)

### Strain relief plate

**Item no.: 734-428**

Strain relief plate; orange

[www.wago.com/734-428](http://www.wago.com/734-428)

### ferrule

**Item no.: 216-101**

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

[www.wago.com/216-101](http://www.wago.com/216-101)**Item no.: 216-102**

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

[www.wago.com/216-102](http://www.wago.com/216-102)

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

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|  |  |  |
|--|--|--|
|    | <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-103">www.wago.com/216-103</a> |
|    | <b>Item no.: 216-104</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-104">www.wago.com/216-104</a> |
|  | <b>Item no.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-121">www.wago.com/216-121</a> |
|    | <b>Item no.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-122">www.wago.com/216-122</a> |
|    | <b>Item no.: 216-123</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-123">www.wago.com/216-123</a> |
|  | <b>Item no.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-124">www.wago.com/216-124</a> |
|    | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-131">www.wago.com/216-131</a> |
|    | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-132">www.wago.com/216-132</a> |
|  | <b>Item no.: 216-141</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92  | <a href="http://www.wago.com/216-141">www.wago.com/216-141</a> |
|  | <b>Item no.: 216-142</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 | <a href="http://www.wago.com/216-142">www.wago.com/216-142</a> |
|  | <b>Item no.: 216-143</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92    | <a href="http://www.wago.com/216-143">www.wago.com/216-143</a> |
|  | <b>Item no.: 216-144</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92  | <a href="http://www.wago.com/216-144">www.wago.com/216-144</a> |
|  | <b>Item no.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-151">www.wago.com/216-151</a> |
|  | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | <a href="http://www.wago.com/216-152">www.wago.com/216-152</a> |
|  | <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white   | <a href="http://www.wago.com/216-201">www.wago.com/216-201</a> |
|  | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray   | <a href="http://www.wago.com/216-202">www.wago.com/216-202</a> |
|  | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red   | <a href="http://www.wago.com/216-203">www.wago.com/216-203</a> |
|  | <b>Item no.: 216-204</b>   |  |

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

|  |  |  |
|--|--|--|
|    | Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black   | <a href="http://www.wago.com/216-204">www.wago.com/216-204</a> |
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white   | <a href="http://www.wago.com/216-221">www.wago.com/216-221</a> |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray   | <a href="http://www.wago.com/216-222">www.wago.com/216-222</a> |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red   | <a href="http://www.wago.com/216-223">www.wago.com/216-223</a> |
|    | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black   | <a href="http://www.wago.com/216-224">www.wago.com/216-224</a> |
|    | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white | <a href="http://www.wago.com/216-241">www.wago.com/216-241</a> |
|    | <b>Item no.: 216-242</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | <a href="http://www.wago.com/216-242">www.wago.com/216-242</a> |
|    | <b>Item no.: 216-243</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red     | <a href="http://www.wago.com/216-243">www.wago.com/216-243</a> |
|    | <b>Item no.: 216-244</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | <a href="http://www.wago.com/216-244">www.wago.com/216-244</a> |
|   | <b>Item no.: 216-262</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | <a href="http://www.wago.com/216-262">www.wago.com/216-262</a> |
|  | <b>Item no.: 216-263</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red     | <a href="http://www.wago.com/216-263">www.wago.com/216-263</a> |
|  | <b>Item no.: 216-264</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | <a href="http://www.wago.com/216-264">www.wago.com/216-264</a> |
|  | <b>Item no.: 216-284</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | <a href="http://www.wago.com/216-284">www.wago.com/216-284</a> |
|  | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow   | <a href="http://www.wago.com/216-301">www.wago.com/216-301</a> |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green  | <a href="http://www.wago.com/216-302">www.wago.com/216-302</a> |
|  | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow   | <a href="http://www.wago.com/216-321">www.wago.com/216-321</a> |
|  | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green  | <a href="http://www.wago.com/216-322">www.wago.com/216-322</a> |

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



## Test Accessories



Item no.: 735-500

Test pin; 1 mm Ø; with solder connection for test wire

[www.wago.com/735-500](http://www.wago.com/735-500)

## Downloads

### Documentation

#### Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

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## CAD/CAE-Data

### CAD data

2D/3D Models 734-220

[URL](#)

[Download](#)

### CAE data

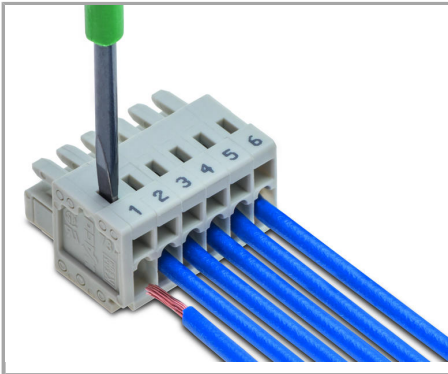
EPLAN Data Portal 734-220

[URL](#)

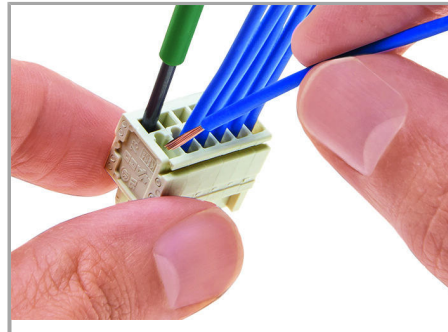
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## Installation Notes

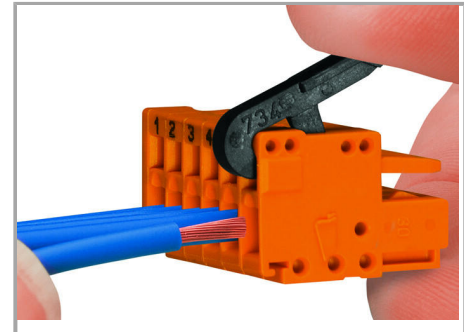
### Conductor termination



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 lever (734-191).

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

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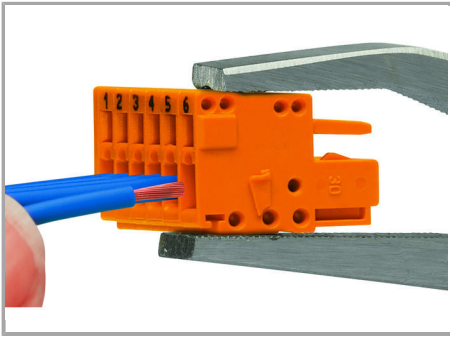
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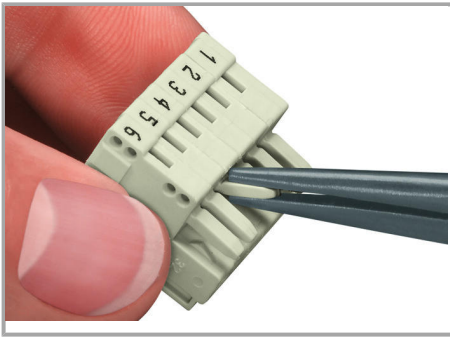
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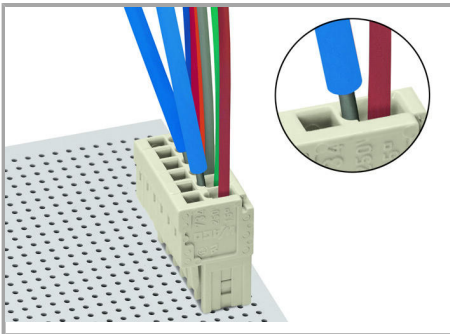
Inserting a conductor into CAGE CLAMP® unit via operating tool (210-251 or 210-250).

### Coding



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

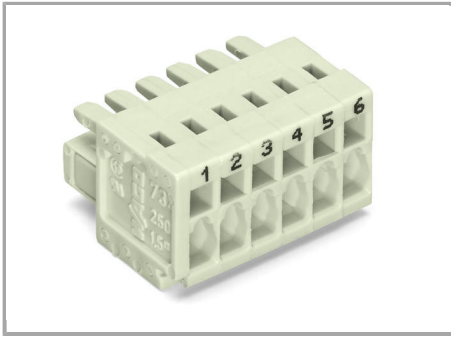
### Testing



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

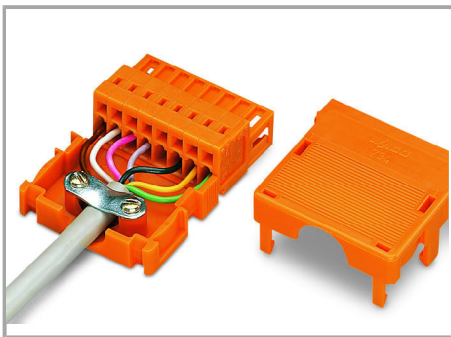
### Marking

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



Labeling via direct marking or self-adhesive strips.

### Installation



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

### Product family

[\*MCS\* MINI](#)

[Learn more about the product family.](#)

[Show all products from the family](#)

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