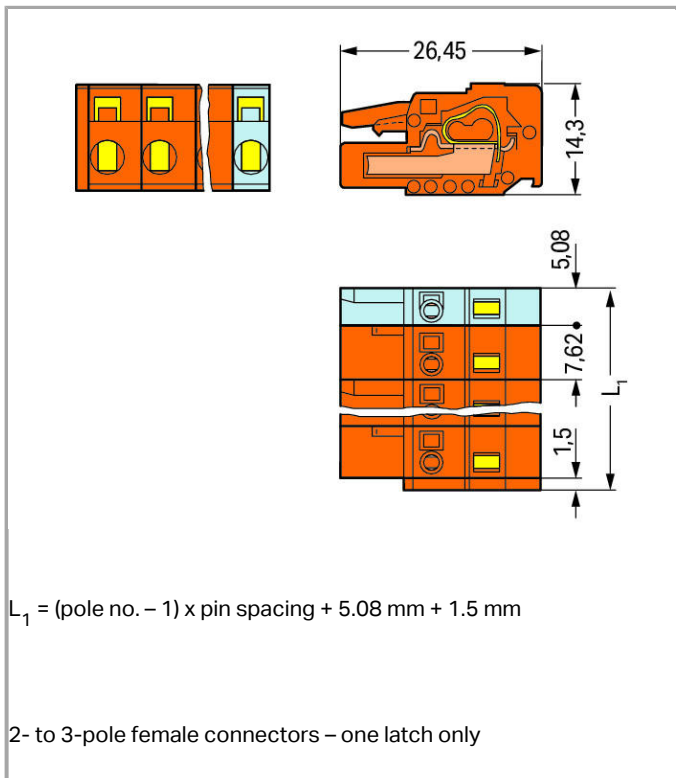


Data sheet | Item number: 231-709/026-000

1-conductor female plug; 2.5 mm<sup>2</sup>; Pin spacing 7.62 mm; 9-pole

231-709/026-000





### Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- With 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

|                                 |        |
|---------------------------------|--------|
| Rated voltage (III / 3)         | 500 V  |
| Rated impulse voltage (III / 3) | 6 kV   |
| Rated voltage (III / 2)         | 630 V  |
| Rated impulse voltage (III / 2) | 6 kV   |
| Rated voltage (II / 2)          | 1000 V |
| Rated impulse voltage (II / 2)  | 6 kV   |

|               |      |
|---------------|------|
| Rated current | 16 A |
|---------------|------|

### 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  |

### Approvals per UL 1977

|   |       |
|---|-------|
| Rated voltage per UL 1977 (factory wiring only) | 600 V |
| Rated current per UL 1977 (factory wiring only) | 15 A  |

### 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 technology                                       | CAGE CLAMP®                                  |
| Actuation type  | Operating tool                               |
| Solid conductor   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor                                     | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 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 ... 2.5 mm <sup>2</sup>                 |
| Strip length  | 8 ... 9 mm / 0.31 ... 0.35 inch              |
| No. of poles  | 9  |
| Total number of connection points                           | 9  |
| Total number of potentials                                  | 9  |
| Number of connection types                                  | 1  |
| Number of levels  | 1  |
| Conductor entry direction to mating direction               | 0°   |

### Geometrical Data

|             |                       |
|-------------|-----------------------|
| Pin spacing | 7.62 mm / 0.3 inch    |
| Width       | 67.54 mm / 2.659 inch |
| Height      | 14.3 mm / 0.563 inch  |
| Depth       | 26.45 mm / 1.041 inch |

## Plug connection

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type          | for conductors          |
| Mismating protection               | No                      |

## 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                   | 0.311 MJ                          |
| Weight                      | 18.916 g                          |

## Environmental Requirements

|                         |                |
|-------------------------|----------------|
| Limit temperature range | -60 ... +85 °C |
|-------------------------|----------------|

## Commercial data


|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | DE                     |
| GTIN               | 4044918352413          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates

### Country specific Approvals



| Logo | Approval                              | Additional Approval Text | Certificate name |
|------|---------------------------------------|--------------------------|------------------|
|      | <b>CB</b><br>DEKRA Certification B.V. | IEC 61984                | NL-39756         |

### Ship Approvals

| Logo   | Approval                                  | Additional Approval Text | Certificate name         |
|--|---|--------------------------|--------------------------|
|  | <b>ABS</b><br>American Bureau of Shipping | -                        | 14-<br>HG1241537-<br>PDA |



### UL-Approvals

Certificate

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

## Compatible products


### Insulation stop

|  |   |         |
|--|---|---------|
|    | <b>Item no.: 231-673</b><br>Insulation stop; 0.08-0.2 mm <sup>2</sup> / 0.2 mm <sup>2</sup> "s" | 231-673 |
|   | <b>Item no.: 231-674</b><br>Insulation stop; 0.25 - 0.5 mm <sup>2</sup>                         | 231-674 |
|  | <b>Item no.: 231-675</b><br>Insulation stop; 0.75 - 1 mm <sup>2</sup>                           | 231-675 |

### General accessories

|  |  |         |
|--|--|---------|
|  | <b>Item no.: 231-669</b><br>Lockout caps; for covering unused clamping units | 231-669 |
|--|--|---------|




### Marking accessories

|  |   |                      |
|--|---|----------------------|
|  | <b>Item no.: 210-331/762-202</b><br>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 | 210-331<br>// b2-z0z |
|  | <b>Item no.: 210-332/762-020</b><br>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             | 210-332<br>// b2-u2u |
|  | <b>Item no.: 210-833</b><br>Marking strips; on reel; 6 mm wide; plain; Self-adhesive  | 210-833              |
|  | <b>Item no.: 210-834</b><br>Marking strips; on reel; 5 mm wide; plain; Self-adhesive  | 210-834              |
















### tools



















|  |  |         |
|--|--|---------|
|  | <b>Item no.: 231-131</b><br>Push-button; for female and male connectors; loose                     | 231-131 |
|  | <b>Item no.: 231-291</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; loose | 231-291 |

check



|  |  |         |
|--|--|---------|
|  | <b>Item no.: 210-136</b><br>Test plug; 2 mm Ø; with 500 mm cable                                 | 210-136 |
|  | <b>Item no.: 210-137</b><br>Test plug; 2.3 mm Ø; with 500 mm cable                               | 210-137 |
|  | <b>Item no.: 231-662</b><br>Test plugs for female connectors; for 7.5 mm and 7.62 mm pin spacing | 231-662 |

ferrule

|  |  |         |
|--|--|---------|
|    | <b>Item no.: 216-101</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | 216-101 |
|    | <b>Item no.: 216-102</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated   | 216-102 |
|    | <b>Item no.: 216-103</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated  | 216-103 |
|    | <b>Item no.: 216-104</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated  | 216-104 |
|    | <b>Item no.: 216-106</b><br>Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated  | 216-106 |
|   | <b>Item no.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | 216-121 |
|  | <b>Item no.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated   | 216-122 |
|  | <b>Item no.: 216-123</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated  | 216-123 |
|  | <b>Item no.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated  | 216-124 |
|  | <b>Item no.: 216-131</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | 216-131 |
|  | <b>Item no.: 216-132</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | 216-132 |
|  | <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  | 216-141 |
|  | <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 | 216-142 |
|  | <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    | 216-143 |
|  | <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  | 216-144 |
|  | <b>Item no.: 216-151</b>   |         |

|  |  |         |
|--|--|---------|
|    | Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | 216-151 |
|    | <b>Item no.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated   | 216-152 |
|    | <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated  | 216-201 |
|    | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated   | 216-202 |
|    | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated  | 216-203 |
|    | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated  | 216-204 |
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated  | 216-221 |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated   | 216-222 |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated  | 216-223 |
|   | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated  | 216-224 |
|  | <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  | 216-241 |
|  | <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 | 216-242 |
|  | <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    | 216-243 |
|  | <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  | 216-244 |
|  | <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 | 216-262 |
|  | <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    | 216-263 |
|  | <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  | 216-264 |
|  | <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  | 216-284 |
|  | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated   | 216-301 |



|   |  |         |
|---|--|---------|
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated | 216-302 |
|   | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated | 216-321 |
|  | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated | 216-322 |

## Downloads

### CAD/CAE - Smart Data

#### CAD data

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 231-709/026-000 | URL | Download |
|-----------------------------|-----|----------|

Subject to changes.