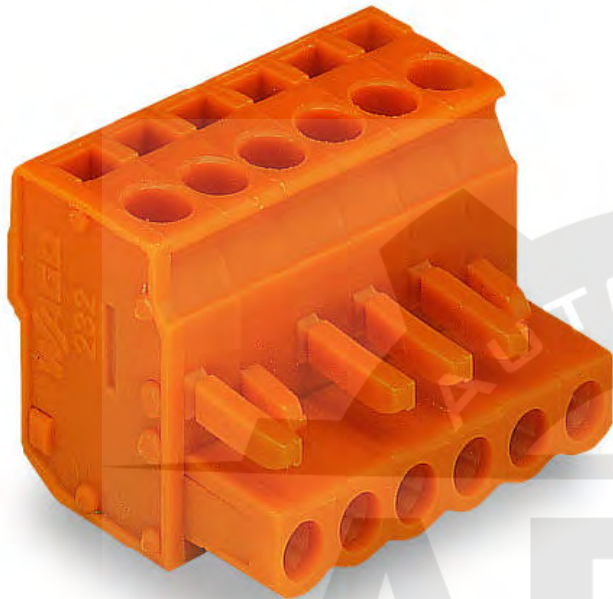


# Data sheet | Item number: 232-419/026-000

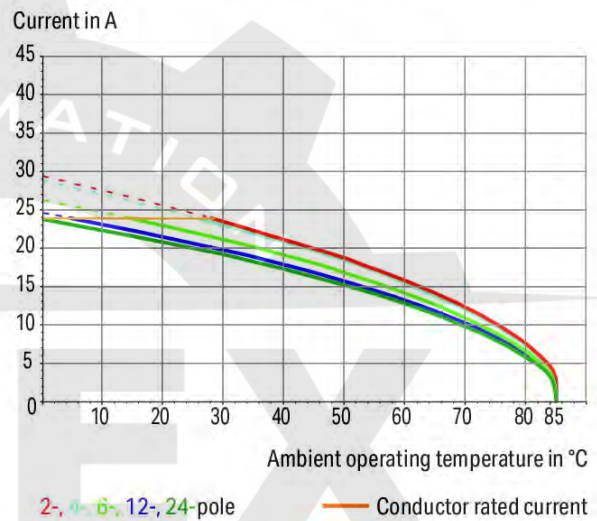
1-conductor female plug; angled; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 19-pole

232-419/026-000



## Derating Curve

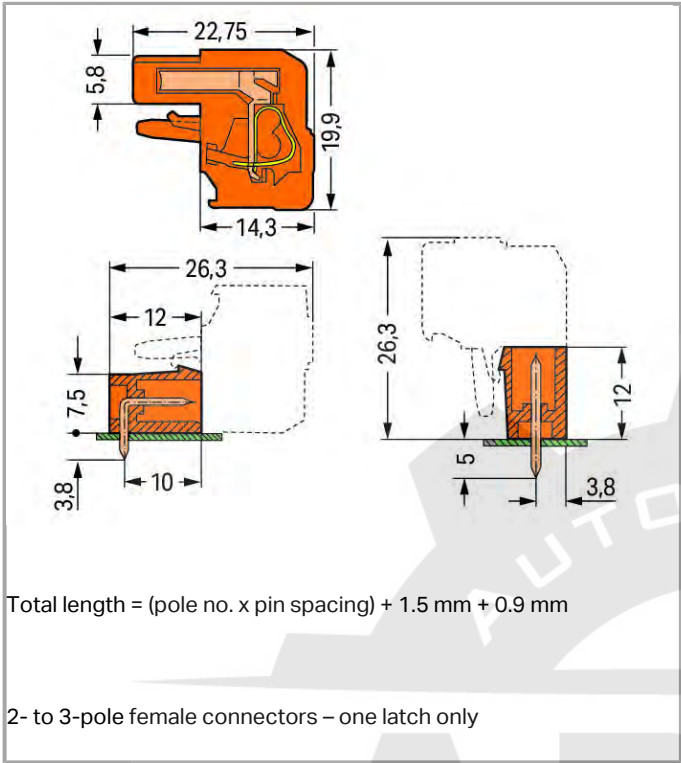
1-conductor female connector (231-102/026-000) with  
THT male header (231-432/001-000)  
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8



RoHS   
Compliant

BOMcheck.net

Color:



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)         | 320 V |
| Rated impulse voltage (III / 3) | 4 kV  |
| Rated voltage (III / 2)         | 320 V |
| Rated impulse voltage (III / 2) | 4 kV  |
| Rated voltage (II / 2)          | 630 V |
| Rated impulse voltage (II / 2)  | 4 kV  |

|               |      |
|---------------|------|
| Rated current | 14 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 mm² / 28 ... 12 AWG |
| Fine-stranded conductor                                     | 0.08 ... 2.5 mm² / 28 ... 12 AWG |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 ... 1.5 mm²                 |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 2.5 mm²                 |
| Strip length                                                | 8 ... 9 mm / 0.31 ... 0.35 inch  |
| No. of poles                                                | 19                               |
| Total number of connection points                           | 19                               |
| Total number of potentials                                  | 19                               |
| Number of connection types                                  | 1                                |
| Number of levels                                            | 1                                |
| Conductor entry direction to mating direction               | 90°                              |

#### Geometrical Data

|             |                       |
|-------------|-----------------------|
| Pin spacing | 5.08 mm / 0.2 inch    |
| Width       | 98.92 mm / 3.894 inch |
| Height      | 19.9 mm / 0.783 inch  |
| Depth       | 22.75 mm / 0.896 inch |

## Mechanical data

|        |        |
|--------|--------|
| Design | angled |
|--------|--------|

## 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                   | 0.577 MJ                          |
| Weight                      | 35.485 g                          |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | PL                     |
| GTIN               | 4044918390231          |
| 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         |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 2190761.01       |

### Ship Approvals

Certificate

| Logo                                                                             | Approval                                                | Additional Approval Text | name                     |
|----------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------|
|  | <b>ABS</b><br>American Bureau of Shipping               | -                        | 14-<br>HG1241537-<br>PDA |
|  | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | EN 60998                 | TAE000016Z               |

#### UL-Approvals

| Logo                                                                             | Approval                                    | Additional Approval Text | Certificate name  |
|----------------------------------------------------------------------------------|---------------------------------------------|--------------------------|-------------------|
|  | <b>UL</b><br>Underwriters Laboratories Inc. | UL 1977                  | E45171            |
|  | <b>UR</b><br>Underwriters Laboratories Inc. | UL 1059                  | E45172<br>sec. 18 |

#### Compatible products

#### General accessories

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

#### Marking accessories

|                                                                                                                                                                                                 |                                                                                       |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|
| <b>Item no.: 210-331/508-103</b><br>Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in;<br>Strip length 182 mm; Horizontal marking; Self-adhesive  |  | 210-331 |
| <b>Item no.: 210-331/508-104</b><br>Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in;<br>Strip length 182 mm; Horizontal marking; Self-adhesive |  | 210-331 |
| <b>Item no.: 210-332/508-202</b><br>Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length<br>182 mm; Horizontal marking; Self-adhesive             |  | 210-332 |
| <b>Item no.: 210-332/508-204</b><br>Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length<br>182 mm; Horizontal marking; Self-adhesive            |  | 210-332 |

**Item no.: 210-332/508-205**

Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive

/508-205

210-332

**Item no.: 210-332/508-206**

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive

/508-206

210-332

**tools****Item no.: 209-130**

Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material

209-130

**Item no.: 231-131**

Push-button; for female and male connectors; loose

231-131

**Item no.: 231-159**

Operating tool; for male and female connectors with CAGE CLAMP®; of Series 231, 232, 721, 722, 723, 731, 732

231-159

**Item no.: 231-231**

Combination operating tool; for male and female connectors with CAGE CLAMP®

231-231

**Item no.: 231-291**

Operating tool; for male and female connectors with CAGE CLAMP®; loose

231-291

**Item no.: 280-432**

Operating tool; of insulating material; 2-way

280-432

**Item no.: 280-433**

Operating tool; of insulating material; 3-way

280-433

**Item no.: 280-434**

Operating tool; of insulating material; 4-way

280-434

**Item no.: 280-435**

Operating tool; of insulating material; 5-way

280-435

**Item no.: 280-436**

Operating tool; of insulating material; 6-way

280-436

**Item no.: 280-437**

Operating tool; of insulating material; 7-way

280-437

**Item no.: 280-438**

Operating tool; of insulating material; 8-way

280-438

**Item no.: 280-440**

Operating tool; of insulating material; 10-way

280-440

**check****Item no.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable

210-136

**Item no.: 210-137**

Test plug; 2.3 mm Ø; with 500 mm cable

210-137

**Item no.: 231-661**

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing

231-661

**Insulation stop**



**Item no.: 231-670**  
Insulation stop; 0.08-0.2 mm<sup>2</sup> / 0.2 mm<sup>2</sup> "s"

231-670



**Item no.: 231-671**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>

231-671



**Item no.: 231-672**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>

231-672

## ferrule



**Item no.: 216-101**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated

216-101



**Item no.: 216-102**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated

216-102



**Item no.: 216-103**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

216-103



**Item no.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated

216-104



**Item no.: 216-106**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated

216-106



**Item no.: 216-121**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated

216-121



**Item no.: 216-122**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated

216-122



**Item no.: 216-123**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

216-123



**Item no.: 216-124**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated

216-124



**Item no.: 216-131**  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-131



**Item no.: 216-132**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-132



**Item no.: 216-141**  
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



**Item no.: 216-142**  
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



**Item no.: 216-143**  
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



**Item no.: 216-144**  
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



**Item no.: 216-151**  
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 mm² / AWG 24; uninsulated; electro-tin plated                                                                       | 216-152 |
|    | <b>Item no.: 216-201</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                          | 216-201 |
|    | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                         | 216-202 |
|    | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                            | 216-203 |
|    | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                          | 216-204 |
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                          | 216-221 |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                         | 216-222 |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                            | 216-223 |
|    | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                          | 216-224 |
|   | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / AWG 24; insulated; electro-tin plated                                                                         | 216-301 |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm² / 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 |
| <b>Jumper</b>                                                                    |                                                                                                                                        |         |
|  | <b>Item no.: 231-902</b><br>Comb-style jumper bar; for 5 mm and 5.08 mm pin spacing; reduces conductor size to 1.5 mm                  | 231-902 |
|  | <b>Item no.: 231-903</b><br>Comb-style jumper bar; 3-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated  | 231-903 |
|  | <b>Item no.: 231-905</b><br>Comb-style jumper bar; 5-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated  | 231-905 |
|  | <b>Item no.: 231-907</b><br>Comb-style jumper bar; 7-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated  | 231-907 |
|  | <b>Item no.: 231-910</b><br>Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated | 231-910 |

## Downloads

### CAD/CAE - Smart Data

#### CAD data

| 3D Download 232-419/026-000 | URL | Download |
|-----------------------------|-----|----------|
|-----------------------------|-----|----------|

Subject to changes.