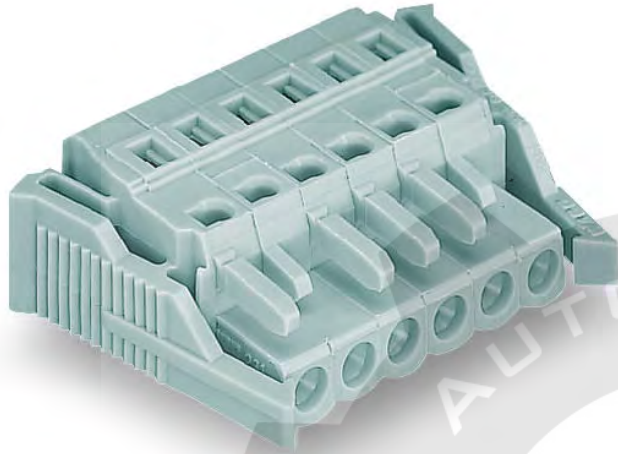


# Data sheet | Item number: 231-124/037-000

1-conductor female plug; Locking lever; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 24-pole



231-124/037-000



RoHS Compliant

[BOMcheck.net](https://www.bomcheck.net)

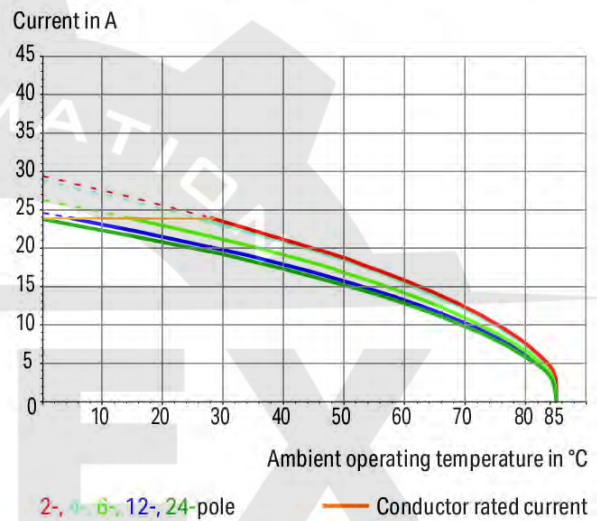
Color:

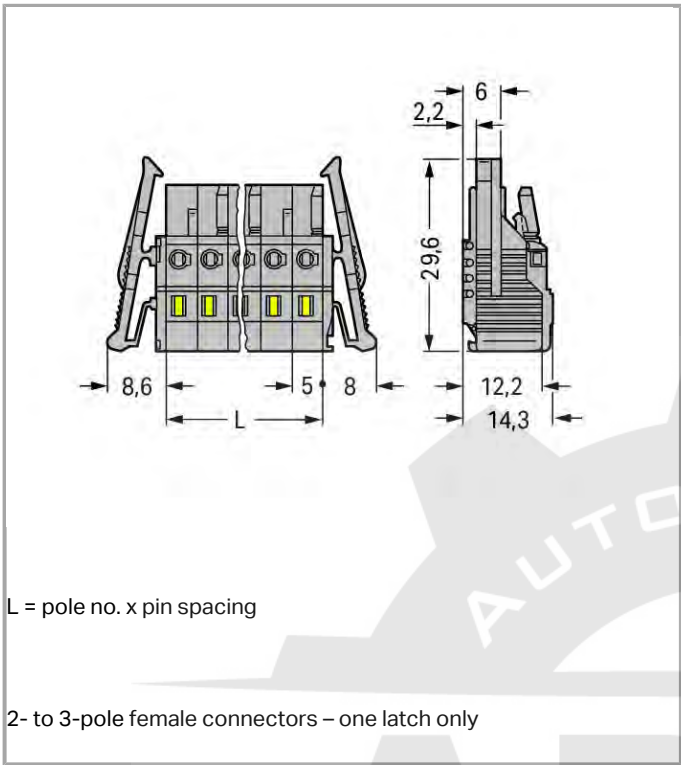
## Derating Curve

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





L = pole no. x pin spacing

2- to 3-pole female connectors – one latch only

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 | 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 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                                                | 24                               |
| Total number of connection points                           | 24                               |
| Total number of potentials                                  | 24                               |
| Number of connection types                                  | 1                                |
| Number of levels                                            | 1                                |
| Conductor entry direction to mating direction               | 0°                               |

#### Geometrical Data

|             |                       |
|-------------|-----------------------|
| Pin spacing | 5 mm / 0.197 inch     |
| Width       | 136.6 mm / 5.378 inch |
| Height      | 14.3 mm / 0.563 inch  |
| Depth       | 29.6 mm / 1.165 inch  |

## Plug connection

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type          | for conductors          |
| Mismating protection               | No                      |
| Locking of plug-in connection      | locking lever           |

## Material Data

|                             |                                   |
|-----------------------------|-----------------------------------|
| Color                       | gray                              |
| 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                   | 0.629 MJ                          |
| Weight                      | 43.424 g                          |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Country of origin  | DE                     |
| GTIN               | 4044918343398          |
| Customs Tariff No. | 85366990990            |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                               | Approval                        | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|---------------------------------|--------------------------|------------------|
|                                                                                    | CB<br>DEKRA Certification B.V.  | IEC 61984                | NL-39756         |
|  | CSA<br>DEKRA Certification B.V. | C22.2                    | 1466354          |
|  | CSA<br>DEKRA Certification B.V. | C22.2                    | 1466354          |

### Ship Approvals

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

#### UL-Approvals

| Logo                                                                             | Approval                                   | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|
|  | <b>UR</b><br>UL International Germany GmbH | UL 1977                  | E45171           |
|  | <b>UR</b><br>UL International Germany GmbH | UL 1977                  | E45171           |

#### Compatible products

#### Jumper

|                                                                                    |                                                                                                                                        |         |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------|
|  | <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 |

#### General accessories

**Item no.: 231-668**

231-668

Lockout caps; for covering unused clamping units

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

210-136

Test plug; 2 mm Ø; with 500 mm cable

**Item no.: 210-137**

210-137

Test plug; 2.3 mm Ø; with 500 mm cable

**Item no.: 231-661**

231-661

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

**ferrule****Item no.: 216-101**

216-101

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated**Item no.: 216-102**

216-102

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated**Item no.: 216-103**

216-103

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated**Item no.: 216-104**

216-104

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated**Item no.: 216-106**

216-106

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated**Item no.: 216-121**

216-121

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated**Item no.: 216-122**

216-122

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated**Item no.: 216-123**

216-123

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated**Item no.: 216-124**

216-124

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated**Item no.: 216-131**

216-131

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated**Item no.: 216-132**

216-132

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated**Item no.: 216-141**

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**Item no.: 216-142**

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**Item no.: 216-143**

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**Item no.: 216-144**

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

**Item no.: 216-151**Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-151

**Item no.: 216-152**Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-152

**Item no.: 216-201**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated

216-201

**Item no.: 216-202**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated

216-202

**Item no.: 216-203**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated

216-203

**Item no.: 216-204**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated

216-204

**Item no.: 216-221**Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated

216-221

**Item no.: 216-222**Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated

216-222

**Item no.: 216-223**Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated

216-223

**Item no.: 216-224**Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated

216-224

**Item no.: 216-241**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

**Item no.: 216-242**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

**Item no.: 216-243**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

**Item no.: 216-244**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

**Item no.: 216-262**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

**Item no.: 216-263**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

**Item no.: 216-264**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

**Item no.: 216-284**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 |
| <b>tools</b>                                                                       |                                                                                                                                          |         |
|    | <b>Item no.: 209-130</b><br>Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material                          | 209-130 |
|    | <b>Item no.: 209-132</b><br>Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material                          | 209-132 |
|    | <b>Item no.: 231-131</b><br>Push-button; for female and male connectors; loose                                                           | 231-131 |
|    | <b>Item no.: 231-159</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; of Series 231, 232, 721, 722, 723, 731, 732 | 231-159 |
|   | <b>Item no.: 231-231</b><br>Combination operating tool; for male and female connectors with CAGE CLAMP®                                  | 231-231 |
|  | <b>Item no.: 231-291</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; loose                                       | 231-291 |
|  | <b>Item no.: 280-432</b><br>Operating tool; of insulating material; 2-way                                                                | 280-432 |
|  | <b>Item no.: 280-433</b><br>Operating tool; of insulating material; 3-way                                                                | 280-433 |
|  | <b>Item no.: 280-434</b><br>Operating tool; of insulating material; 4-way                                                                | 280-434 |
|   | <b>Item no.: 280-435</b><br>Operating tool; of insulating material; 5-way                                                                | 280-435 |
|  | <b>Item no.: 280-436</b><br>Operating tool; of insulating material; 6-way                                                                | 280-436 |
|  | <b>Item no.: 280-437</b><br>Operating tool; of insulating material; 7-way                                                                | 280-437 |
|  | <b>Item no.: 280-438</b><br>Operating tool; of insulating material; 8-way                                                                | 280-438 |
|  | <b>Item no.: 280-440</b><br>Operating tool; of insulating material; 10-way                                                               | 280-440 |

**Marking accessories**

|                                                                                                                                      |                     |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>Item no.: 210-331/500-103</b><br>Marking strips; as a DIN A4 sheet; MARKED; 1-12 (300x); Height of marker strip: 2.3 mm/0.091 in; | 210-331<br>/500-103 |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|



Strip length 182 mm; Horizontal marking; Self-adhesive

|                                                                                                                                                                                                 |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>Item no.: 210-331/500-104</b><br>Marking strips; as a DIN A4 sheet; MARKED; 13-24 (300x); Height of marker strip: 2.3 mm/0.091 in;<br>Strip length 182 mm; Horizontal marking; Self-adhesive | 210-331 |
| <b>Item no.: 210-332/500-202</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.: 210-332/500-204</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 |
| <b>Item no.: 210-332/500-205</b><br>Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length<br>182 mm; Horizontal marking; Self-adhesive              | 210-332 |
| <b>Item no.: 210-332/500-206</b><br>Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length<br>182 mm; Horizontal marking; Self-adhesive            | 210-332 |

**Insulation stop**

|                                                                                                                                                                                  |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|  <b>Item no.: 231-670</b><br>Insulation stop; 0.08-0.2 mm <sup>2</sup> / 0.2 mm <sup>2</sup> "s" | 231-670 |
|  <b>Item no.: 231-671</b><br>Insulation stop; 0.25 - 0.5 mm <sup>2</sup>                        | 231-671 |
|  <b>Item no.: 231-672</b><br>Insulation stop; 0.75 - 1 mm <sup>2</sup>                         | 231-672 |

**Downloads****CAD/CAE - Smart Data****CAD data**

|                             |     |          |
|-----------------------------|-----|----------|
| 3D Download 231-124/037-000 | URL | Download |
|-----------------------------|-----|----------|

Subject to changes.