

## Data sheet | Item number: 231-320/027-000

1-conductor female plug; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole



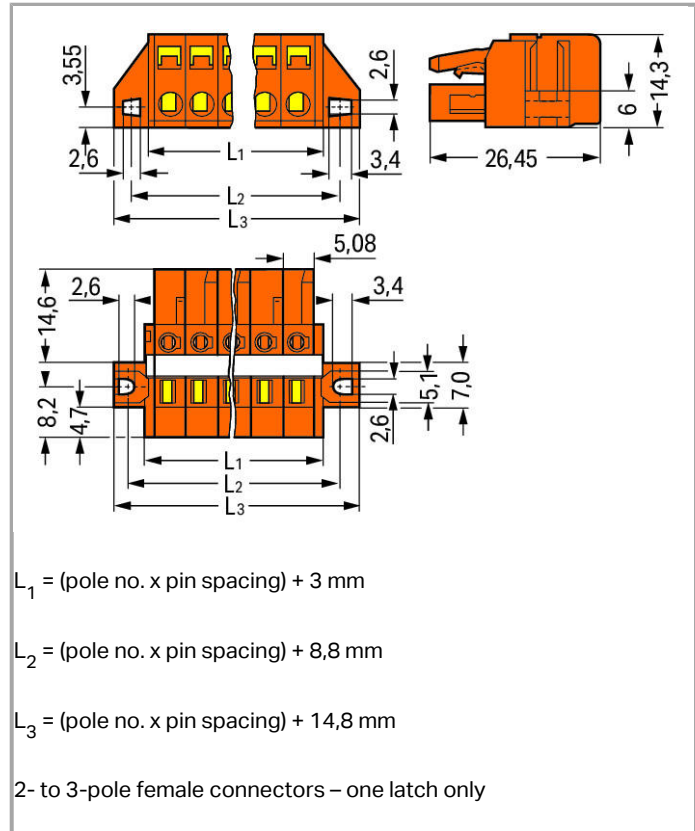
[www.wago.com/231-320/027-000](http://www.wago.com/231-320/027-000)



RoHS  Compliant

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

Other variants can be requested via the WAGO sales department or, if necessary, configured at <https://configurator.wago.com/>: Gold-plated or partially gold-plated contact surfaces

### 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  |
| Legend (ratings)                | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

### 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 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  | 20   |
| Total number of connection points                           | 20   |
| Total number of potentials                                  | 20   |
| Number of connection types                                  | 1  |
| Number of levels  | 1  |
| Conductor entry direction to mating direction               | 0°   |

### Geometrical Data

|             |                       |
|-------------|-----------------------|
| Pin spacing | 5.08 mm (0.2 inch)    |
| Width       | 116.4 mm / 4.583 inch |
| Height      | 14.3 mm / 0.563 inch  |
| Depth       | 26.45 mm / 1.041 inch |



## Mechanical data

|                        |   |
|------------------------|---|
| Mounting type          | Mounting flange                         |
| Type of mounting       | Feed-through mounting<br>Panel mounting |
| with reinforcing strip | 1                                       |

## 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                   | 0.545 MJ                          |
| Weight                      | 37.44 g                           |

## Environmental Requirements

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

## Commercial data

|                    |                        |
|--------------------|------------------------|
| Country of origin  | DE                     |
| GTIN               | 4044918350105          |
| Customs Tariff No. | 85366990990            |
| Product Group      | 3 (Multi Conn. System) |



## Approvals / Certificates

### Country specific Approvals

| Logo | Approval                                     | Certificate name |
|------|--|------------------|
|      | <b>CB</b><br>DEKRA Certification B.V.        | NL-39756         |
|      | <b>CB</b><br>DEKRA Certification B.V.        | NL-39756         |
|      | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | 2190761.01       |



## UL-Approvals











| Logo   | Approval                             | Certificate name |
|--|--------------------------------------|------------------|
|  | UL<br>UL International Germany GmbH  | E45171           |
|  | UR<br>Underwriters Laboratories Inc. | E45172           |




















## Compatible products









## General accessories

|  |   |  |
|--|---|--|
|  | Item no.: 231-669<br>Lockout caps; for covering unused clamping units | <a href="http://www.wago.com/231-669">www.wago.com/231-669</a> |
|--|---|--|




## ferrule

|  |   |  |
|--|---|--|
|  | Item no.: 216-101<br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-101">www.wago.com/216-101</a> |
|  | Item no.: 216-102<br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated | <a href="http://www.wago.com/216-102">www.wago.com/216-102</a> |
|  | Item no.: 216-103<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> |
|  | Item no.: 216-104<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> |
|  | Item no.: 216-106<br>Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated  | <a href="http://www.wago.com/216-106">www.wago.com/216-106</a> |
|  | Item no.: 216-121<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> |
|  | Item no.: 216-122<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> |
|  | Item no.: 216-123<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> |
|  | Item no.: 216-124<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> |
|  | Item no.: 216-131<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> |






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|---|--|--|
|    | <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> / AWG 22; 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> / AWG 20; 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> / AWG 22; insulated; electro-tin plated  | <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> / AWG 20; insulated; electro-tin plated   | <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  | <a href="http://www.wago.com/216-203">www.wago.com/216-203</a> |
|  | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated  | <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> / AWG 22; insulated; electro-tin plated  | <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> / AWG 20; insulated; electro-tin plated   | <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  | <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  | <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> / AWG 22; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90    | <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> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90   | <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      | <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    | <a href="http://www.wago.com/216-244">www.wago.com/216-244</a> |

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|---|--|--|
|  | <b>Item no.: 216-262</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90 | <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    | <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  | <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  | <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   | <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> / AWG 24; insulated; electro-tin plated   | <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   | <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> / AWG 24; insulated; electro-tin plated   | <a href="http://www.wago.com/216-322">www.wago.com/216-322</a> |

#### 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" | <a href="http://www.wago.com/231-670">www.wago.com/231-670</a> |
|  | <b>Item no.: 231-671</b><br>Insulation stop; 0.25 - 0.5 mm <sup>2</sup>                         | <a href="http://www.wago.com/231-671">www.wago.com/231-671</a> |
|  | <b>Item no.: 231-672</b><br>Insulation stop; 0.75 - 1 mm <sup>2</sup>                           | <a href="http://www.wago.com/231-672">www.wago.com/231-672</a> |


#### 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                  | <a href="http://www.wago.com/231-902">www.wago.com/231-902</a> |
|  | <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  | <a href="http://www.wago.com/231-903">www.wago.com/231-903</a> |
|  | <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  | <a href="http://www.wago.com/231-905">www.wago.com/231-905</a> |
|  | <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  | <a href="http://www.wago.com/231-907">www.wago.com/231-907</a> |
|  | <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 | <a href="http://www.wago.com/231-910">www.wago.com/231-910</a> |


#### check


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|--|--|--|
|  | <b>Item no.: 210-136</b><br>Test plug; 2 mm Ø; with 500 mm cable | <a href="http://www.wago.com/210-136">www.wago.com/210-136</a> |
|--|--|--|


|  |  |  |
|--|--|--|
|  | <b>Item no.: 210-137</b><br>Test plug; 2.3 mm Ø; with 500 mm cable | <a href="http://www.wago.com/210-137">www.wago.com/210-137</a> |
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|--|--|--|
|  | <b>Item no.: 231-661</b><br>Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing | <a href="http://www.wago.com/231-661">www.wago.com/231-661</a> |
|--|--|--|


**tools**


|  |   |  |
|--|---|--|
|  | <b>Item no.: 209-130</b><br>Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material | <a href="http://www.wago.com/209-130">www.wago.com/209-130</a> |
|--|---|--|

|  |   |  |
|--|---|--|
|  | <b>Item no.: 209-132</b><br>Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material | <a href="http://www.wago.com/209-132">www.wago.com/209-132</a> |
|--|---|--|

|  |  |  |
|--|--|--|
|  | <b>Item no.: 231-131</b><br>Push-button; for female and male connectors; loose | <a href="http://www.wago.com/231-131">www.wago.com/231-131</a> |
|--|--|--|

|  |  |  |
|--|--|--|
|  | <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 | <a href="http://www.wago.com/231-159">www.wago.com/231-159</a> |
|--|--|--|

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|--|---|--|
|  | <b>Item no.: 231-231</b><br>Combination operating tool; for male and female connectors with CAGE CLAMP® | <a href="http://www.wago.com/231-231">www.wago.com/231-231</a> |
|--|---|--|

|   |  |  |
|---|--|--|
|  | <b>Item no.: 231-291</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; loose | <a href="http://www.wago.com/231-291">www.wago.com/231-291</a> |
|---|--|--|

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|--|---|--|
|  | <b>Item no.: 280-432</b><br>Operating tool; of insulating material; 2-way | <a href="http://www.wago.com/280-432">www.wago.com/280-432</a> |
|--|---|--|

|  |   |  |
|--|---|--|
|  | <b>Item no.: 280-433</b><br>Operating tool; of insulating material; 3-way | <a href="http://www.wago.com/280-433">www.wago.com/280-433</a> |
|--|---|--|

|  |   |  |
|--|---|--|
|  | <b>Item no.: 280-434</b><br>Operating tool; of insulating material; 4-way | <a href="http://www.wago.com/280-434">www.wago.com/280-434</a> |
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|  |   |  |
|--|---|--|
|  | <b>Item no.: 280-435</b><br>Operating tool; of insulating material; 5-way | <a href="http://www.wago.com/280-435">www.wago.com/280-435</a> |
|--|---|--|

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|  | <b>Item no.: 280-436</b><br>Operating tool; of insulating material; 6-way | <a href="http://www.wago.com/280-436">www.wago.com/280-436</a> |
|--|---|--|

|  |   |  |
|--|---|--|
|  | <b>Item no.: 280-437</b><br>Operating tool; of insulating material; 7-way | <a href="http://www.wago.com/280-437">www.wago.com/280-437</a> |
|--|---|--|

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|  | <b>Item no.: 280-438</b><br>Operating tool; of insulating material; 8-way | <a href="http://www.wago.com/280-438">www.wago.com/280-438</a> |
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|  | <b>Item no.: 280-440</b><br>Operating tool; of insulating material; 10-way | <a href="http://www.wago.com/280-440">www.wago.com/280-440</a> |
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Downloads

smartDATA

CAD data

3D Download 231-320/027-000

URL

Download

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Subject to changes.

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