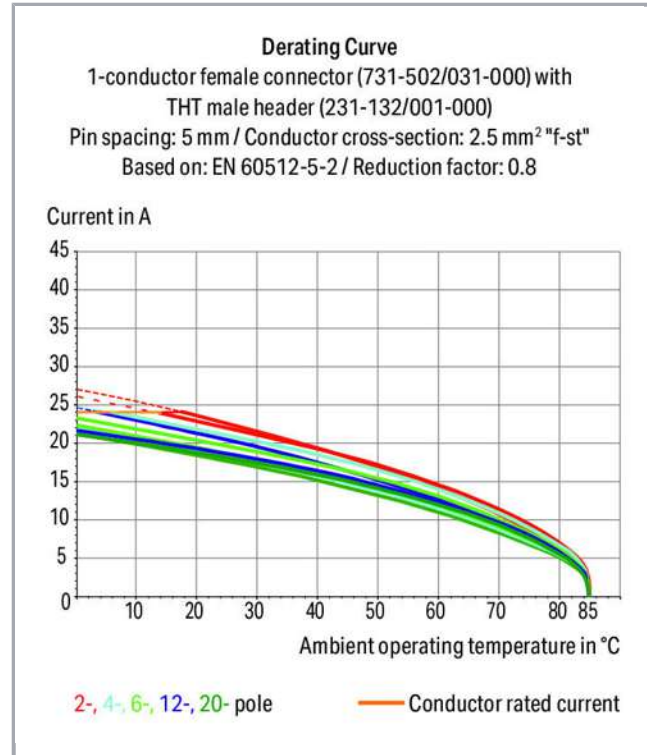


Data sheet | Item number: 731-517/031-000

1-conductor female plug; angled; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 17-pole; 2,50 mm<sup>2</sup>; gray

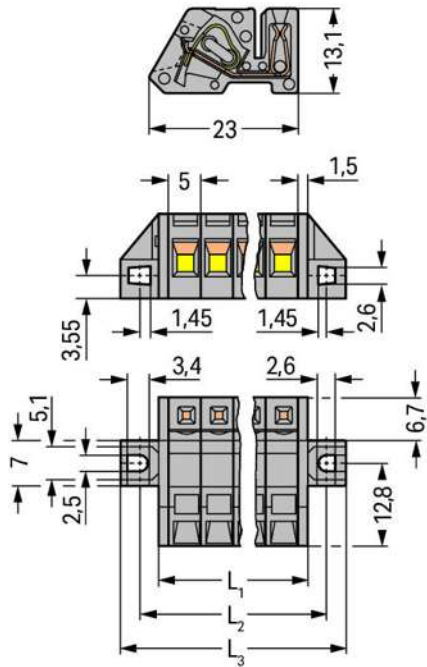
[www.wago.com/731-517\\_031-000](http://www.wago.com/731-517_031-000)



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

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Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



$L_1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$

$L_2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$

$L_3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$

### Item description

- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated

### 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.

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



## Data

### Electrical data

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

| 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                   | 12 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                  | UL 1059 |

#### 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 |

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



|   |                                 |
|---|---------------------------------|
| 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  | 7 ... 8 mm / 0.28 ... 0.31 inch |
| No. of poles  | 17                              |
| Total number of connection points                           | 17                              |
| Total number of potentials                                  | 17                              |
| Number of connection types                                  | 1                               |
| Number of levels  | 1                               |
| Conductor entry direction to mating direction               | 90°                             |

### Geometrical Data

|             |                      |
|-------------|----------------------|
| Pin spacing | 5 mm / 0.197 inch    |
| Width       | 99.8 mm / 3.929 inch |
| Height      | 13.1 mm / 0.516 inch |
| Depth       | 23 mm / 0.906 inch   |

### Mechanical data

|                  |   |
|------------------|---|
| Design           | angled; mountable                       |
| Mounting type    | Mounting flange                         |
| Type of mounting | Feed-through mounting<br>Panel mounting |

### Plug connection

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

### 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                   | 0.485 MJ                          |
| Weight                      | 24.8 g                            |

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

## Environmental Requirements



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

## Commercial data


|                    |                        |
|--------------------|------------------------|
| Product Group      | 3 (Multi Conn. System) |
| Packaging type     | BOX                    |
| Country of origin  | PL                     |
| GTIN               | 4044918575331          |
| 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>CSA</b><br>DEKRA Certification B.V.       | C22.2                    | 1466354          |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 2190761.01       |

### Ship Approvals

| Logo   | Approval                                  | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|  | <b>ABS</b><br>American Bureau of Shipping | -                        | 19-HG1869876-PDA |

### UL-Approvals

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

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



UL  
Underwriters Laboratories Inc.

UL 1059

20190731-  
E45172

## Counterpart








**Item no.231-617**  
1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 17-pole; 2,50 mm<sup>2</sup>; gray





[www.wago.com/231-617](http://www.wago.com/231-617)

## 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; gray                  | <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; gray  | <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; gray  | <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; gray  | <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; gray | <a href="http://www.wago.com/231-910">www.wago.com/231-910</a> |















### ferrule

|  |  |  |
|--|--|--|
|  | <b>Item no.: 216-106</b><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> |
|  | <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> |
















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|  |  |  |
|--|--|--|
|    | <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.: 216-221</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> |

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

|  |  |  |
|--|--|--|
|    | <p><b>Item no.: 216-246</b><br/>                     Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue</p>  | <a href="http://www.wago.com/216-246">www.wago.com/216-246</a> |
|    | <p><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</p> | <a href="http://www.wago.com/216-262">www.wago.com/216-262</a> |
|    | <p><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</p>     | <a href="http://www.wago.com/216-263">www.wago.com/216-263</a> |
|    | <p><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</p> | <a href="http://www.wago.com/216-264">www.wago.com/216-264</a> |
|    | <p><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</p> | <a href="http://www.wago.com/216-284">www.wago.com/216-284</a> |
|  | <p><b>Item no.: 216-321</b><br/>                     Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>   | <a href="http://www.wago.com/216-321">www.wago.com/216-321</a> |
|    | <p><b>Item no.: 216-322</b><br/>                     Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green</p>  | <a href="http://www.wago.com/216-322">www.wago.com/216-322</a> |
| <b>assembling</b>  |  |  |
|   | <p><b>Item no.: 209-147</b><br/>                     Self-tapping screw</p>  | <a href="http://www.wago.com/209-147">www.wago.com/209-147</a> |
|  | <p><b>Item no.: 231-194</b><br/>                     Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø</p>  | <a href="http://www.wago.com/231-194">www.wago.com/231-194</a> |
|  | <p><b>Item no.: 231-195</b><br/>                     Screw with nut; M2x12; for fixing element</p>   | <a href="http://www.wago.com/231-195">www.wago.com/231-195</a> |
|  | <p><b>Item no.: 231-295</b><br/>                     Screw with nut</p>  | <a href="http://www.wago.com/231-295">www.wago.com/231-295</a> |
| <b>check</b>   |  |  |
|  | <p><b>Item no.: 210-136</b><br/>                     Test plug; 2 mm Ø; with 500 mm cable; red</p>   | <a href="http://www.wago.com/210-136">www.wago.com/210-136</a> |
|  | <p><b>Item no.: 210-137</b><br/>                     Test plug; 2.3 mm Ø; with 500 mm cable; yellow</p>  | <a href="http://www.wago.com/210-137">www.wago.com/210-137</a> |
|  | <p><b>Item no.: 231-661</b><br/>                     Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray</p>   | <a href="http://www.wago.com/231-661">www.wago.com/231-661</a> |
| <b>tools</b>   |  |  |
|  | <p><b>Item no.: 209-130</b><br/>                     Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material</p>   | <a href="http://www.wago.com/209-130">www.wago.com/209-130</a> |
|  | <p><b>Item no.: 210-657</b><br/>                     Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short</p>  | <a href="http://www.wago.com/210-657">www.wago.com/210-657</a> |

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



|  |   |  |
|--|---|--|
|    | <b>Item no.: 210-720</b><br>Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft | <a href="http://www.wago.com/210-720">www.wago.com/210-720</a> |
|    | <b>Item no.: 231-131</b><br>Push-button; loose  | <a href="http://www.wago.com/231-131">www.wago.com/231-131</a> |
|    | <b>Item no.: 231-159</b><br>Operating tool; natural   | <a href="http://www.wago.com/231-159">www.wago.com/231-159</a> |
|    | <b>Item no.: 231-231</b><br>Combination operating tool; red                                       | <a href="http://www.wago.com/231-231">www.wago.com/231-231</a> |
|    | <b>Item no.: 231-291</b><br>Operating tool; loose; red  | <a href="http://www.wago.com/231-291">www.wago.com/231-291</a> |
|    | <b>Item no.: 280-432</b><br>Operating tool; made 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; made 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; made of insulating material; 4-way                    | <a href="http://www.wago.com/280-434">www.wago.com/280-434</a> |
|     | <b>Item no.: 280-435</b><br>Operating tool; made of insulating material; 5-way; gray              | <a href="http://www.wago.com/280-435">www.wago.com/280-435</a> |
|   | <b>Item no.: 280-436</b><br>Operating tool; made 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; made of insulating material; 7-way                    | <a href="http://www.wago.com/280-437">www.wago.com/280-437</a> |
|  | <b>Item no.: 280-438</b><br>Operating tool; made of insulating material; 8-way                    | <a href="http://www.wago.com/280-438">www.wago.com/280-438</a> |
|  | <b>Item no.: 280-440</b><br>Operating tool; made of insulating material; 10-way                   | <a href="http://www.wago.com/280-440">www.wago.com/280-440</a> |

**Marking accessories**

|  |  |
|--|--|
| <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 182 mm; Horizontal marking; Self-adhesive; white  | <a href="http://www.wago.com/210-332/500-202">www.wago.com/210-332/500-202</a> |
| <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 182 mm; Horizontal marking; Self-adhesive; white | <a href="http://www.wago.com/210-332/500-204">www.wago.com/210-332/500-204</a> |
| <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 182 mm; Horizontal marking; Self-adhesive; white   | <a href="http://www.wago.com/210-332/500-205">www.wago.com/210-332/500-205</a> |

**Item no.: 210-332/500-206**

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



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; white

[www.wago.com/210-332/500-206](http://www.wago.com/210-332/500-206)



**Item no.: 210-833**

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

[www.wago.com/210-833](http://www.wago.com/210-833)



**Item no.: 210-834**

Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

[www.wago.com/210-834](http://www.wago.com/210-834)

## Downloads

### Documentation

#### Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

[Download](#)

## CAD/CAE-Data

### CAD data

2D/3D Models 731-517/031-000

[URL](#)

[Download](#)

### CAE data

EPLAN Data Portal 731-517/031-000

[URL](#)

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## Installation Notes

### Application

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

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Angled female plug – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

#### Application



Angled female connector used as through-panel connector.

Termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

#### Product family

[\*<i>MCS</i>\* MIDI Classic](#)

[Show all products from the family](#)

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