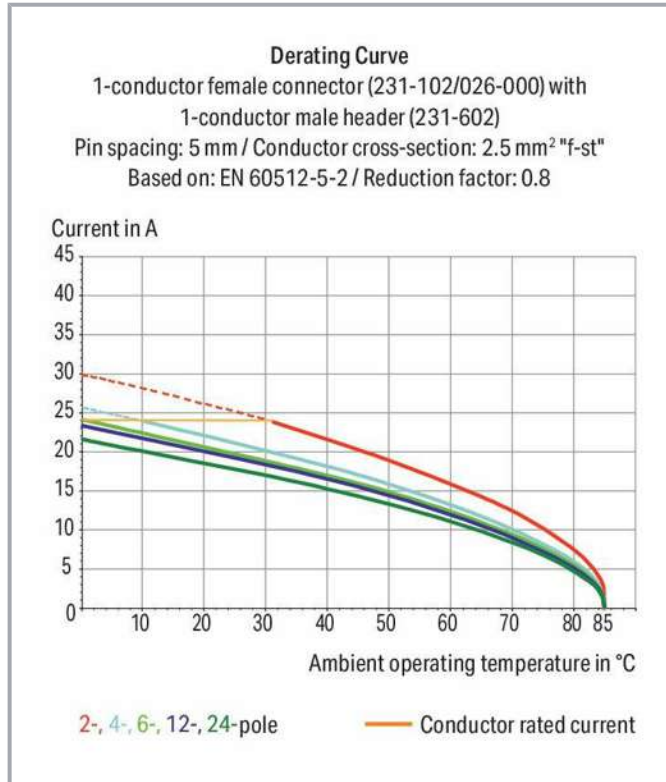
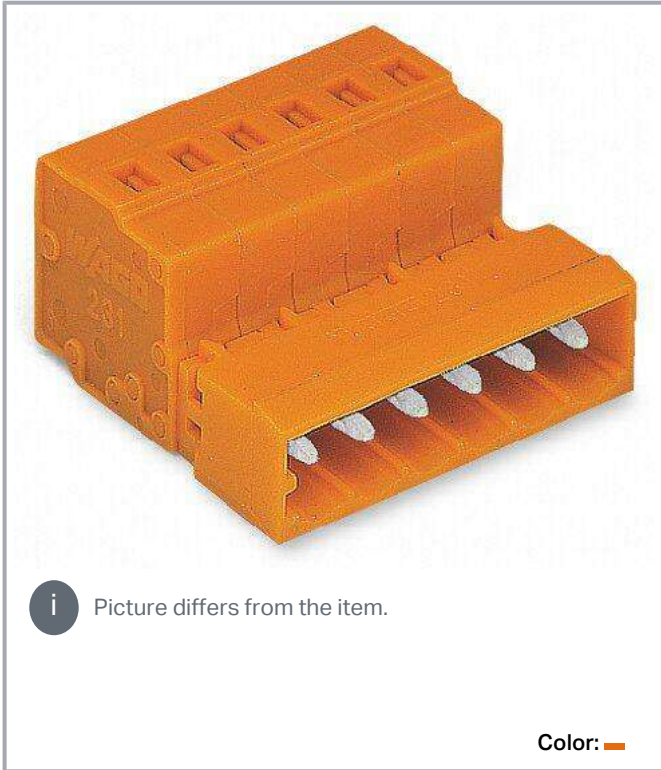


**Data sheet | Item number: 231-650**

Male connector; 20-pole; Pin spacing 5.08 mm ; orange

[www.wago.com/231-650](http://www.wago.com/231-650)



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

WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

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



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_1 = L - 1.7 \text{ mm}$

$L_2 = L - 1.2 \text{ mm}$

### Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP<sup>®</sup> actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting

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

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- With coding fingers

## Data Notes

### Safety information 1

The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must 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.

### Variants:

Other pole numbers  
Gold-plated or partially gold-plated contact surfaces  
Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>

## Electrical data

### IEC Approvals

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	12 A
Legend (ratings)	(III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2

### UL Approvals

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

### Ratings per UL

Rated voltage UL 1977	600 V
Rated current UL 1977	15 A

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

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## CSA Approvals

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

Total number of connection points	20
Total number of potentials	20
Number of connection types	1
Number of levels	1

## Connection 1

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 insulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup>
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Number of poles	20
Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	5.08 mm / 0.2 inch
Width	104.8 mm / 4.126 inch
Height	14.3 mm / 0.563 inch
Depth	27.5 mm / 1.083 inch

## Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for conductor
Mismating protection	No
Locking of plug-in connection	Without

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

## Material data

Color	orange
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.501 MJ
Weight	30.8 g

## Environmental requirements



Limit temperature range	-60 ... +100 °C
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## Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	10 Stück
Packaging type	box
Country of origin	DE
GTIN	4044918261180
Customs tariff number	8536694040



## Approvals / Certificates

### Country specific Approvals



Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756
	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

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






Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1869876- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z
	<b>LR</b> Lloyds Register	IEC 61984	96/20035 (E5)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> UL International Germany GmbH	UL 1977	E45171
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

Counterpart

	<b>Item no.2231-320/008-000</b> Female plug; 20-pole; push-button; snap-in mounting feet;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange	<a href="http://www.wago.com/2231-320/008-000">www.wago.com/2231-320/008-000</a>
	<b>Item no.2231-320/026-000</b> Female plug; 20-pole; push-button; 12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange	<a href="http://www.wago.com/2231-320/026-000">www.wago.com/2231-320/026-000</a>
	<b>Item no.2231-320/031-000</b> Female plug; 20-pole; push-button; mounting flange;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange	<a href="http://www.wago.com/2231-320/031-000">www.wago.com/2231-320/031-000</a>
	<b>Item no.2231-320/102-000</b> Female plug; 20-pole; push-button; with integrated end plate;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange	<a href="http://www.wago.com/2231-320/102-000">www.wago.com/2231-320/102-000</a>
	<b>Item no.2231-320/037-000</b> Female plug; 20-pole; push-button; locking lever;12 AWG max; pin spacing 5.08 mm;1-conductor per pole; orange	<a href="http://www.wago.com/2231-320/037-000">www.wago.com/2231-320/037-000</a>

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



**Item no.231-320/008-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; Snap-in mounting feet; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-320/008-000](http://www.wago.com/231-320/008-000)



**Item no.231-320/026-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-320/026-000](http://www.wago.com/231-320/026-000)



**Item no.231-320/031-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; clamping collar; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-320/031-000](http://www.wago.com/231-320/031-000)



**Item no.231-320/037-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; Lateral locking levers; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-320/037-000](http://www.wago.com/231-320/037-000)



**Item no.231-320/027-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; clamping collar; 2,50 mm<sup>2</sup>; orange

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



**Item no.231-320/102-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; with integrated end plate; 2,50 mm<sup>2</sup>; orange

[www.wago.com/231-320/102-000](http://www.wago.com/231-320/102-000)



**Item no.232-180**

THT female header; straight; Pin spacing 5.08 mm; 20-pole; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-180](http://www.wago.com/232-180)



**Item no.232-180/039-000**

THT female header; straight; Pin spacing 5.08 mm; 20-pole; Locking lever; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-180/039-000](http://www.wago.com/232-180/039-000)



**Item no.232-180/047-000**

THT female header; straight; Pin spacing 5.08 mm; 20-pole; Spacer flange; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-180/047-000](http://www.wago.com/232-180/047-000)



**Item no.232-180/031-000**

THT female header; straight; Pin spacing 5.08 mm; 20-pole; clamping collar; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-180/031-000](http://www.wago.com/232-180/031-000)



**Item no.232-280/031-000**

THT female header; angled; Pin spacing 5.08 mm; 20-pole; clamping collar; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-280/031-000](http://www.wago.com/232-280/031-000)



**Item no.232-280**

THT female header; angled; Pin spacing 5.08 mm; 20-pole; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-280](http://www.wago.com/232-280)

**Item no.232-280/047-000**

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



THT female header; angled; Pin spacing 5.08 mm; 20-pole; Spacer flange; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-280/047-000](http://www.wago.com/232-280/047-000)



**Item no.232-280/039-000**

THT female header; angled; Pin spacing 5.08 mm; 20-pole; Locking lever; 0.6 x 1.0 mm solder pin; orange

[www.wago.com/232-280/039-000](http://www.wago.com/232-280/039-000)



**Item no.232-320/026-000**

1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 20-pole; 2,50 mm<sup>2</sup>; orange

[www.wago.com/232-320/026-000](http://www.wago.com/232-320/026-000)

## Optional accessories

### Coding

Coding



**Item no.: 231-129**

Coding key; snap-on type; light gray

[www.wago.com/231-129](http://www.wago.com/231-129)

### Jumpers

Jumper



**Item no.: 231-905**

Jumper; for conductor entry; 5-way; insulated; gray

[www.wago.com/231-905](http://www.wago.com/231-905)



**Item no.: 231-903**

Jumper; for conductor entry; 3-way; insulated; gray

[www.wago.com/231-903](http://www.wago.com/231-903)



**Item no.: 231-907**

Jumper; for conductor entry; 7-way; insulated; gray

[www.wago.com/231-907](http://www.wago.com/231-907)



**Item no.: 231-910**

Jumper; for conductor entry; 10-way; insulated; gray

[www.wago.com/231-910](http://www.wago.com/231-910)



**Item no.: 231-902**

Jumper; for conductor entry; 2-way; insulated; gray

[www.wago.com/231-902](http://www.wago.com/231-902)

### Ferrules

Ferrule



**Item no.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-101](http://www.wago.com/216-101)



**Item no.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-104](http://www.wago.com/216-104)



**Item no.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-106](http://www.wago.com/216-106)



**Item no.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-102](http://www.wago.com/216-102)

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











<b>Item no.: 216-103</b> 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>
<b>Item no.: 216-123</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-123">www.wago.com/216-123</a>
<b>Item no.: 216-122</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-122">www.wago.com/216-122</a>
<b>Item no.: 216-124</b> 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.: 216-142</b> 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.: 216-132</b> 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.: 216-121</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-121">www.wago.com/216-121</a>
<b>Item no.: 216-143</b> 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.: 216-131</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-131">www.wago.com/216-131</a>
<b>Item no.: 216-141</b> 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.: 216-152</b> 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.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
<b>Item no.: 216-151</b> 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.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
<b>Item no.: 216-144</b> 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; silver-colored	<a href="http://www.wago.com/216-144">www.wago.com/216-144</a>
<b>Item no.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
<b>Item no.: 216-223</b> 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>

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



	<b>Item no.: 216-241</b> 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> 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.: 216-222</b> 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.: 216-221</b> 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.: 216-224</b> 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.: 216-243</b> 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> 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>
	<b>Item no.: 216-263</b> 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/216-263">www.wago.com/216-263</a>
	<b>Item no.: 216-264</b> 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/216-264">www.wago.com/216-264</a>
	<b>Item no.: 216-284</b> 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/216-284">www.wago.com/216-284</a>
	<b>Item no.: 216-262</b> 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/216-262">www.wago.com/216-262</a>
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>

**Marking accessories**

## Marking strip

<b>Item no.: 210-331/508-103</b> Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip	<a href="http://www.wago.com/210-331/508-103">www.wago.com/210-331/508-103</a>
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Subject to changes. Please also observe the further product documentation!

length 182 mm; Horizontal marking; Self-adhesive; white

**Item no.: 210-331/508-104**

Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-331/508-104](http://www.wago.com/210-331/508-104)

**Item no.: 210-332/508-202**

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

[www.wago.com/210-332/508-202](http://www.wago.com/210-332/508-202)

**Item no.: 210-332/508-204**

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

[www.wago.com/210-332/508-204](http://www.wago.com/210-332/508-204)

**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; white

[www.wago.com/210-332/508-206](http://www.wago.com/210-332/508-206)

**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; white

[www.wago.com/210-332/508-205](http://www.wago.com/210-332/508-205)

**Tools**

Operating tool



**Item no.: 209-130**

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

[www.wago.com/209-130](http://www.wago.com/209-130)



**Item no.: 209-132**

Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material

[www.wago.com/209-132](http://www.wago.com/209-132)



**Item no.: 210-657**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

[www.wago.com/210-657](http://www.wago.com/210-657)



**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-720](http://www.wago.com/210-720)



**Item no.: 231-131**

Operating tool; made of insulating material; 1-way; loose; white

[www.wago.com/231-131](http://www.wago.com/231-131)



**Item no.: 231-291**

Operating tool; made of insulating material; 1-way; loose; red

[www.wago.com/231-291](http://www.wago.com/231-291)



**Item no.: 280-432**

Operating tool; made of insulating material; 2-way; white

[www.wago.com/280-432](http://www.wago.com/280-432)



**Item no.: 280-434**

Operating tool; made of insulating material; 4-way

[www.wago.com/280-434](http://www.wago.com/280-434)



**Item no.: 280-437**

Operating tool; made of insulating material; 7-way

[www.wago.com/280-437](http://www.wago.com/280-437)

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



**Item no.: 280-440**  
Operating tool; made of insulating material; 10-way

[www.wago.com/280-440](http://www.wago.com/280-440)



**Item no.: 280-435**  
Operating tool; made of insulating material; 5-way; gray

[www.wago.com/280-435](http://www.wago.com/280-435)



**Item no.: 280-436**  
Operating tool; made of insulating material; 6-way

[www.wago.com/280-436](http://www.wago.com/280-436)



**Item no.: 280-438**  
Operating tool; made of insulating material; 8-way

[www.wago.com/280-438](http://www.wago.com/280-438)



**Item no.: 280-433**  
Operating tool; made of insulating material; 3-way

[www.wago.com/280-433](http://www.wago.com/280-433)

## Cover

Cover



**Item no.: 231-669**  
Lockout caps; for covering unused clamping units; orange

[www.wago.com/231-669](http://www.wago.com/231-669)

## Insulations stops

Insulation stop



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

[www.wago.com/231-672](http://www.wago.com/231-672)



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

[www.wago.com/231-670](http://www.wago.com/231-670)



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

[www.wago.com/231-671](http://www.wago.com/231-671)

## Downloads

### Documentation

#### Additional Information

Technical explanations	2019 Apr 3	pdf 2.0 MB	Download
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### CAD files

#### CAD data

2D/3D Models 231-650	URL	Download
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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.

### CAE data

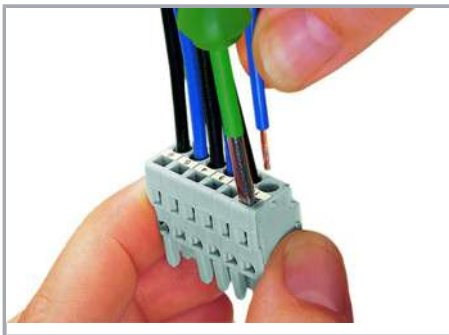
EPLAN Data Portal 231-650	URL	Download
ZUKEN Portal 231-650	URL	Download

## Environmental Product Compliance

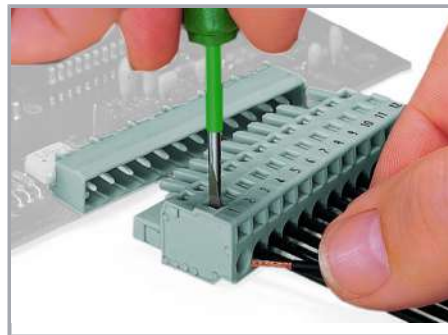
### Compliance Search

Environmental Product Compliance 231-650	URL	Download
1-conductor male connector; CAGE CLAMP®; 2.5 mm <sup>2</sup> ; Pin spacing 5.08 mm; 20-pole; 2,50 mm <sup>2</sup> ; orange		

## Installation Notes



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



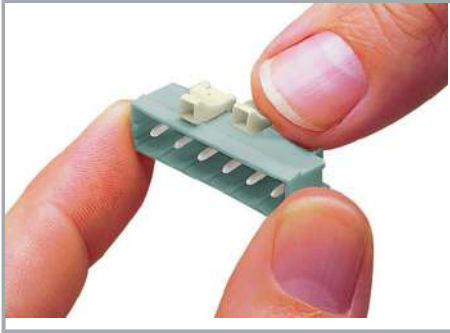
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



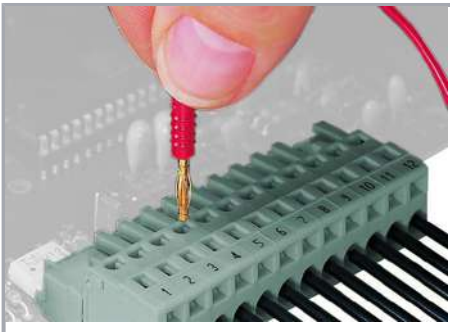
Inserting a conductor via operating tool.

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

### Coding



Coding a male header – fitting coding key(s).



Testing – female connector with CAGE CLAMP®

Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

### Installation



Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

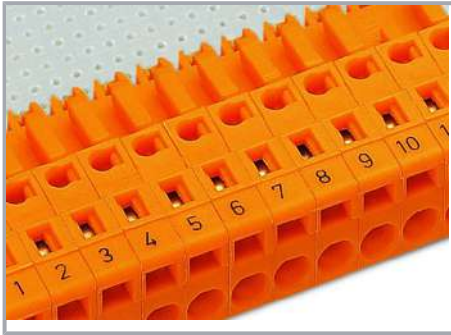
Subject to changes. Please also observe the further product documentation!

Data sheet | Item number: 231-650

[www.wago.com/231-650](http://www.wago.com/231-650)



### Marking



Labeling via direct marking or self-adhesive strips.

### Product family

**MCS MIDI Classic**

[Show all products from the family](#)

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