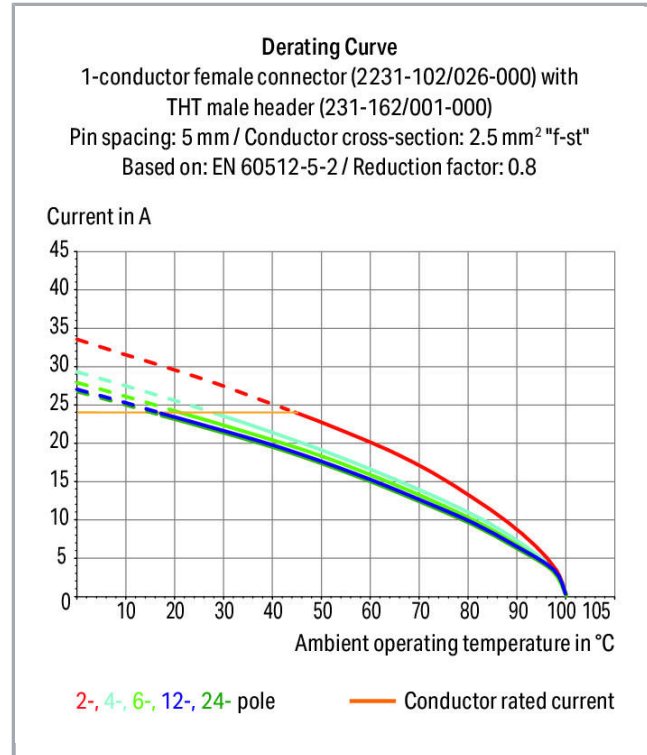
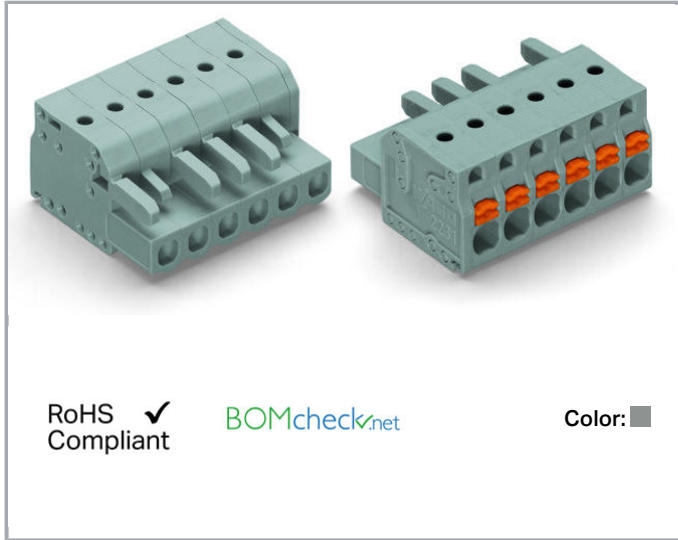


**Data sheet | Item number: 2231-112/102-000**

1-conductor female plug; push-button; with integrated end plate; 2.5 mm<sup>2</sup>;  
Pin spacing 5 mm; 12-pole; 2,50 mm<sup>2</sup>; gray

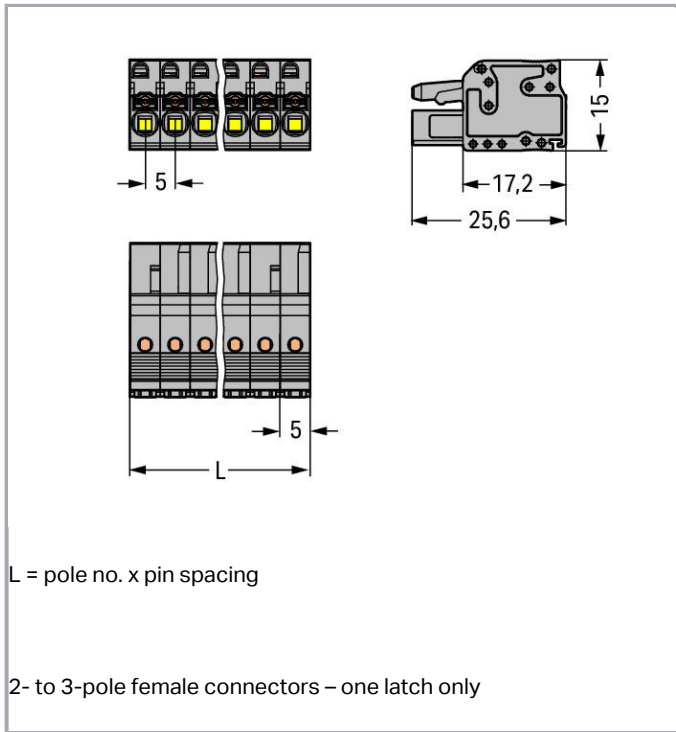
[www.wago.com/2231-112/102-000](http://www.wago.com/2231-112/102-000)



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

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## Item description

- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 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

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	320 V

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

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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 C)	150 V
Rated current UL (Use Group C)	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 C)	150 V
Rated current CSA (Use Group C)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

### Connection data

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 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>

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



Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
No. of poles	12
Total number of connection points	12
Total number of potentials	12
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	60 mm / 2.362 inch
Height	15 mm / 0.591 inch
Depth	25.6 mm / 1.008 inch

### Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for conductors
Mismating protection	No
Plugging without loss of pin spacing	1

### 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	0.382 MJ
Weight	18.7 g

### Environmental Requirements

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

### Commercial data

Product Group	3 (Multi Conn. System)
---------------	------------------------

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



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Packaging type	BOX
Country of origin	PL
GTIN	4045454907723
Customs Tariff No.	85366990990

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CB</b> DEKRA Certification B.V.	IEC 61984	NL-39756
	<b>CSA</b> DEKRA Certification B.V.	C22.2 No. 158	2314554
	<b>KEMA/KEUR</b> DEKRA Certification B.V.	EN 61984	2190761.01

### UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> Underwriters Laboratories Inc.	UL 1059	20190731-E45172
	<b>UR</b> UL International Germany GmbH	UL 1977	E45171

## Counterpart



### Item no.231-612

1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 12-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-612](http://www.wago.com/231-612)



### Item no.231-142/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 12-pole; gray

[www.wago.com/231-142/001-000](http://www.wago.com/231-142/001-000)

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

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Item no.231-442/001-000

THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 12-pole; gray

[www.wago.com/231-442/001-000](http://www.wago.com/231-442/001-000)

## Compatible products

### Test Accessories



Item no.: 210-136

Test plug; 2 mm Ø; with 500 mm cable; red

[www.wago.com/210-136](http://www.wago.com/210-136)

Item no.: 231-661

Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm<sup>2</sup>; light gray[www.wago.com/231-661](http://www.wago.com/231-661)

### ferrule

Item no.: 216-101

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated[www.wago.com/216-101](http://www.wago.com/216-101)

Item no.: 216-102

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated[www.wago.com/216-102](http://www.wago.com/216-102)

Item no.: 216-103

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated[www.wago.com/216-103](http://www.wago.com/216-103)

Item no.: 216-104

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated[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[www.wago.com/216-106](http://www.wago.com/216-106)

Item no.: 216-121

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated[www.wago.com/216-121](http://www.wago.com/216-121)

Item no.: 216-122

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated[www.wago.com/216-122](http://www.wago.com/216-122)

Item no.: 216-123

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated[www.wago.com/216-123](http://www.wago.com/216-123)

Item no.: 216-124

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated[www.wago.com/216-124](http://www.wago.com/216-124)

Item no.: 216-131

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated[www.wago.com/216-131](http://www.wago.com/216-131)

Item no.: 216-132

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated[www.wago.com/216-132](http://www.wago.com/216-132)

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

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	<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.: 216-142</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.: 216-143</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.: 216-144</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	<a href="http://www.wago.com/216-144">www.wago.com/216-144</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.: 216-152</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.: 216-201</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.: 216-202</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.: 216-203</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.: 216-204</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.: 216-221</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.: 216-222</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.: 216-223</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>
	<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.: 216-241</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.: 216-243</b>	

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

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; [www.wago.com/216-243](http://www.wago.com/216-243)  
acc. to DIN 46228, Part 4/09.90; red

**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; black [www.wago.com/216-244](http://www.wago.com/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; gray [www.wago.com/216-262](http://www.wago.com/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; red [www.wago.com/216-263](http://www.wago.com/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; black [www.wago.com/216-264](http://www.wago.com/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; black [www.wago.com/216-284](http://www.wago.com/216-284)

**Item no.: 216-301**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow [www.wago.com/216-301](http://www.wago.com/216-301)

**Item no.: 216-302**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green [www.wago.com/216-302](http://www.wago.com/216-302)

**Item no.: 216-321**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow [www.wago.com/216-321](http://www.wago.com/216-321)

**Item no.: 216-322**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green [www.wago.com/216-322](http://www.wago.com/216-322)

**tools****Item no.: 210-657**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short [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 [www.wago.com/210-720](http://www.wago.com/210-720)

**Insulation stop****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)

**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)

**Marking accessories****Item no.: 210-332/500-202**

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/210-332/500-202](http://www.wago.com/210-332/500-202)

**Item no.: 210-332/500-204**

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length

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

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182 mm; Horizontal marking; Self-adhesive; white

[www.wago.com/210-332/500-204](http://www.wago.com/210-332/500-204)

**Item no.: 210-332/500-205**

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/210-332/500-205](http://www.wago.com/210-332/500-205)

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

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/210-332/500-206](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)

**Strain relief plate**



**Item no.: 734-430**

Strain relief plate; gray

[www.wago.com/734-430](http://www.wago.com/734-430)

**Downloads**

**Documentation**

**Additional Information**

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

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**CAD/CAE-Data**

**CAD data**

2D/3D Models 2231-112/102-000

URL

Download

**Installation Notes**

**Application**

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

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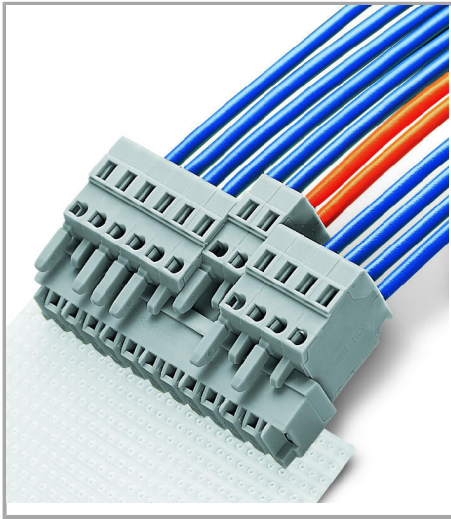
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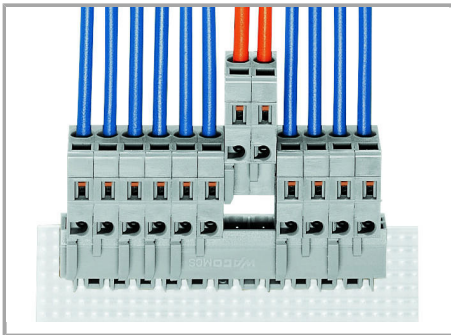
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Total pole number for female connectors =  
pole number for male header

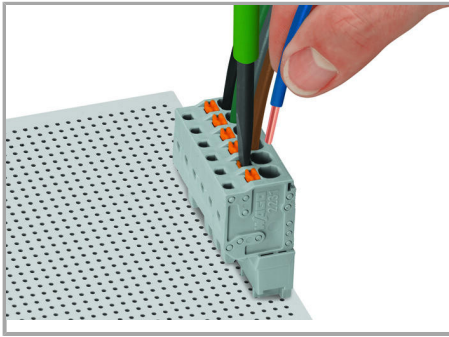
#### Application



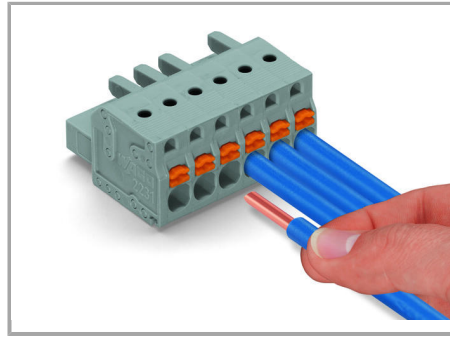
Female connectors with a built-in end plate  
require no extra space, while maintaining the  
nominal cross-section. This means: Total  
length of female connectors is reduced to  
"pole no. x pin spacing"!

#### Inserting a conductor

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

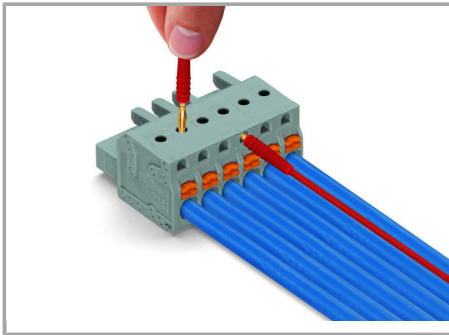


Inserting fine-stranded conductors into Push-in CAGE CLAMP® unit via push-buttons.



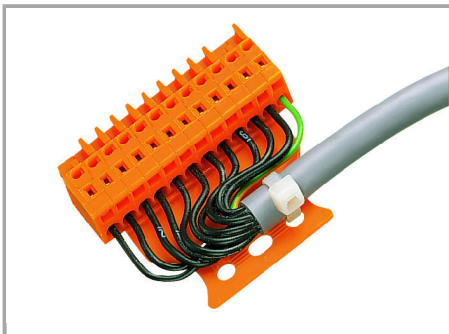
Push-in termination of solid conductors or fine-stranded conductors with ferrule

### Testing



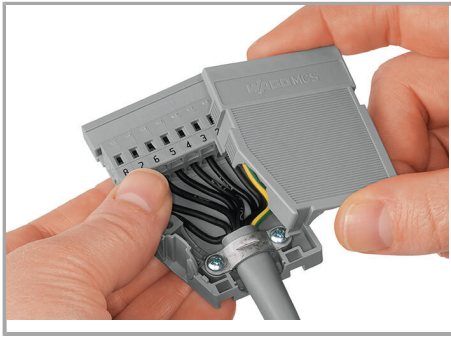
Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.

### Assembly



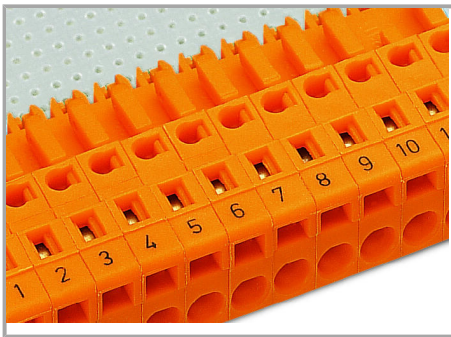
Male connector with strain relief plate

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



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

### Marking



Labeling via direct marking or self-adhesive strips.

### Product family

[\*MCS\*](#) MIDI Classic

[Learn more about the product family.](#)

[Show all products from the family](#)

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