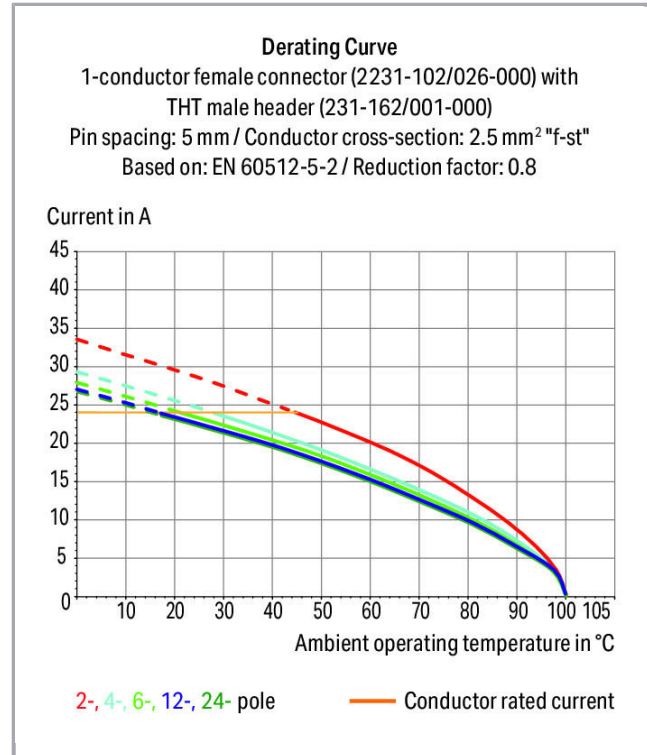
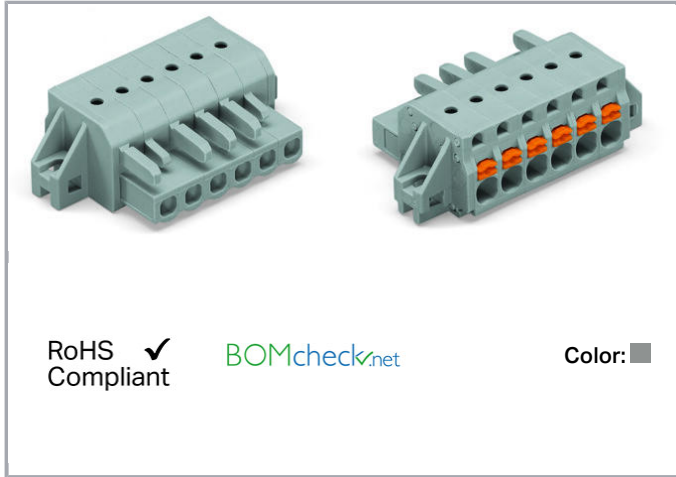


**Data sheet | Item number: 2231-118/031-000**

1-conductor female plug; push-button; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 18-pole; 2,50 mm<sup>2</sup>; gray



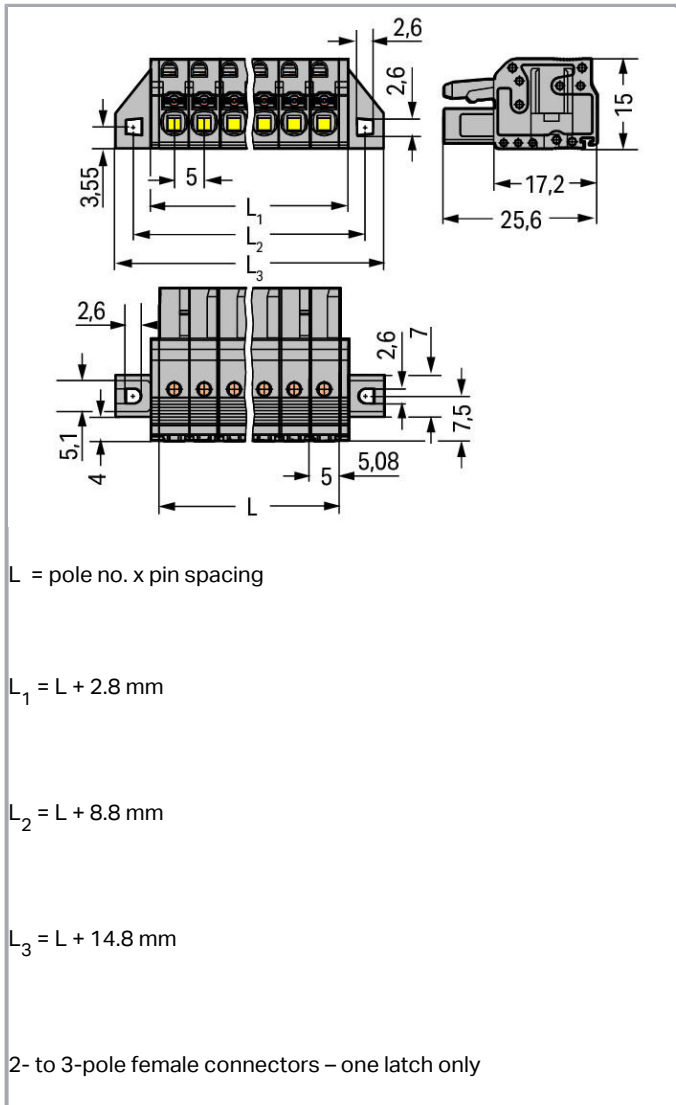
[www.wago.com/2231-118/031-000](http://www.wago.com/2231-118/031-000)



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

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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.

## 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	16 A
Legend (ratings)	(III / 2) $\hat{=}$ 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

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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>
Strip length	10 ... 11 mm / 0.39 ... 0.43 inch
No. of poles	18
Total number of connection points	18
Total number of potentials	18
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	104,8 mm / 4.126 inch
Height	15 mm / 0.591 inch
Depth	25,6 mm / 1.008 inch

### Mechanical data

Mounting type	Mounting flange
Type of mounting	Feed-through mounting Panel mounting

### Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for conductor
Mismating protection	No

### Material Data

Color	gray
Material group	I

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

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	0.604 MJ
Weight	29 g

### Environmental Requirements



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

### Commercial data


Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	PL
GTIN	4045454877200
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

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



UR  
UL International Germany GmbH

UL 1977

E45171

## Counterpart



**Item no. 231-618**  
1-conductor male connector; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 18-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-618](http://www.wago.com/231-618)

**Item no. 231-148/001-000**  
THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 18-pole; gray

[www.wago.com/231-148/001-000](http://www.wago.com/231-148/001-000)

**Item no. 231-448/001-000**  
THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 18-pole; gray

[www.wago.com/231-448/001-000](http://www.wago.com/231-448/001-000)

## Compatible products

### Strain relief plate



**Item no.: 734-431**  
Strain relief plate; gray

[www.wago.com/734-431](http://www.wago.com/734-431)

### 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 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

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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)

**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)

**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)



**Item no.: 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

[www.wago.com/216-141](http://www.wago.com/216-141)

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

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	<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> 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>

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



	<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.: 216-263</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.: 216-301</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.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-302">www.wago.com/216-302</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>assembling</b>		
	<b>Item no.: 209-147</b> Self-tapping screw	<a href="http://www.wago.com/209-147">www.wago.com/209-147</a>
	<b>Item no.: 231-194</b> Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø	<a href="http://www.wago.com/231-194">www.wago.com/231-194</a>
	<b>Item no.: 231-195</b> Screw with nut; M2x12; for fixing element	<a href="http://www.wago.com/231-195">www.wago.com/231-195</a>
	<b>Item no.: 231-295</b> Screw with nut	<a href="http://www.wago.com/231-295">www.wago.com/231-295</a>
<b>Insulation stop</b>		
	<b>Item no.: 231-671</b> Insulation stop; 0.25 - 0.5 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/231-671">www.wago.com/231-671</a>
	<b>Item no.: 231-672</b> Insulation stop; 0.75 - 1 mm <sup>2</sup> ; dark gray	<a href="http://www.wago.com/231-672">www.wago.com/231-672</a>
<b>Test Accessories</b>		
	<b>Item no.: 210-136</b> Test plug; 2 mm Ø; with 500 mm cable; red	<a href="http://www.wago.com/210-136">www.wago.com/210-136</a>
	<b>Item no.: 231-661</b> Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm <sup>2</sup> ; light gray	<a href="http://www.wago.com/231-661">www.wago.com/231-661</a>

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

## Downloads

### Documentation

#### Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

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## CAD/CAE-Data

### CAD data

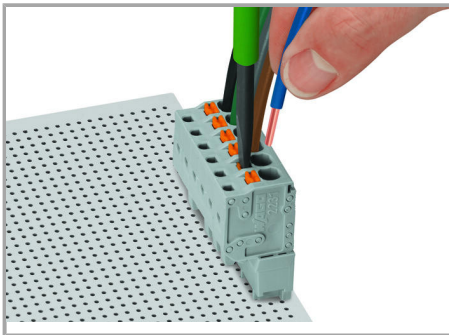
2D/3D Models 2231-118/031-000

URL

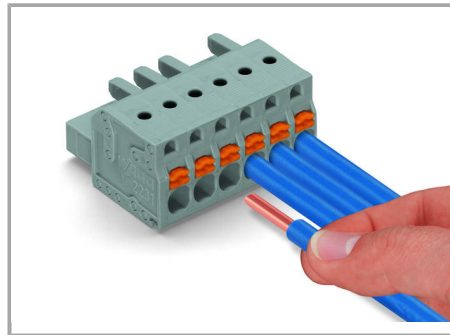
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## Installation Notes

### Inserting a conductor



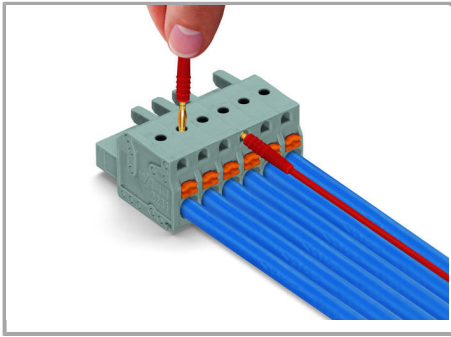
Inserting fine-stranded conductors into Push-in CAGE CLAMP® unit via push-buttons.



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

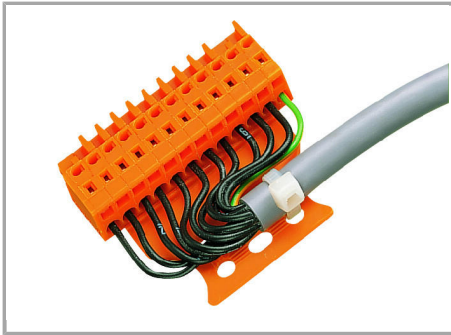
## Testing

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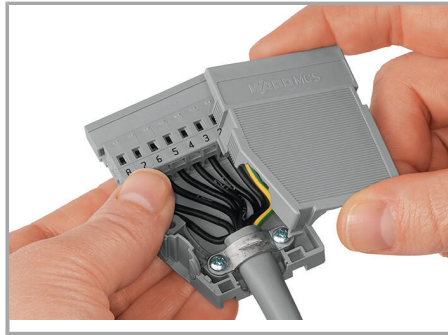


Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.

### Assembly



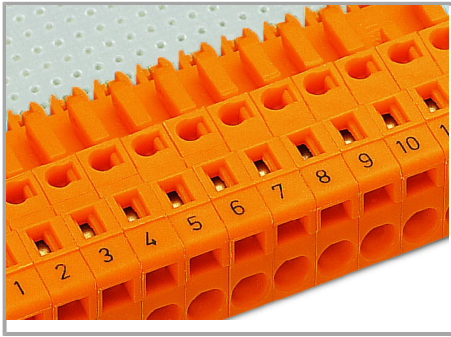
Male connector with strain relief plate



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

### Marking

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



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!