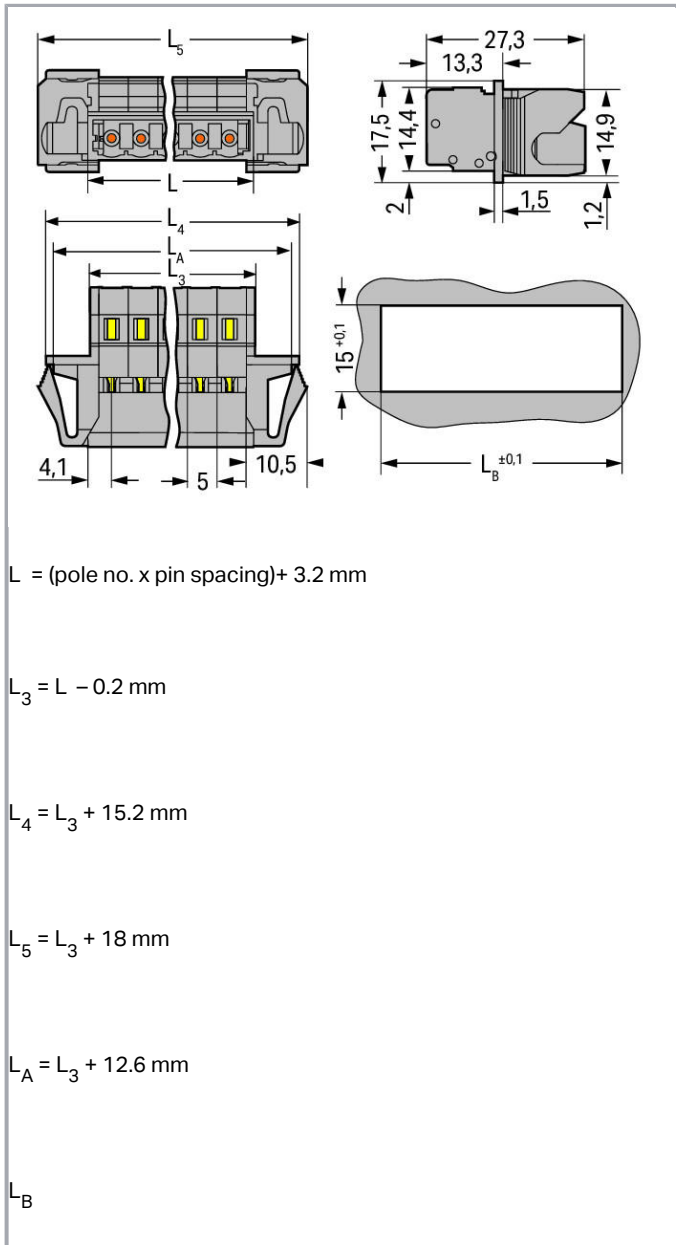


Subject to changes. Please also observe the further product documentation!



$L = (\text{pole no.} \times \text{pin spacing}) + 3.2 \text{ mm}$

$L_3 = L - 0.2 \text{ mm}$

$L_4 = L_3 + 15.2 \text{ mm}$

$L_5 = L_3 + 18 \text{ mm}$

$L_A = L_3 + 12.6 \text{ mm}$

$L_B$

## Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® 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
- With coding fingers

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.

**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.

**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) $\hat{=}$ 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 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

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



## 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	3
Total number of connection points	3
Total number of potentials	3
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	36 mm / 1.417 inch
Height	17,5 mm / 0.689 inch
Depth	27,5 mm / 1.083 inch

## Mechanical data

Gehäuseblechstärke	0,5 ... 2,5 mm / 0.02 ... 0.098 inch
Mounting type	Snap-in
Type of mounting	Feed-through mounting

## Plug connection

Contact type (pluggable connector)	Male connector/plug
Connector connection type	for conductor
Mismating protection	No

## Material Data

Color	gray
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0

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

Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0.152 MJ
Weight	6.9 g

### Environmental Requirements


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

### Commercial data



Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4050821216018
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	1466354

#### 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

#### UL-Approvals

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

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Do you have any questions about our products?  
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Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1059	E45172-19911118
	UR UL International Germany GmbH	UL 1977	E45171

### Counterpart







Item no.231-103/026-000







1-conductor female plug; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 3-pole; 2,50 mm<sup>2</sup>; gray

[www.wago.com/231-103/026-000](http://www.wago.com/231-103/026-000)










### Compatible products

ferrule		
	Item no.: 216-101 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 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 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 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 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 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>

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














	<b>Item no.: 216-122</b> 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> 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>
	<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.: 216-131</b> 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> 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> 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>

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

	<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>
	<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>Jumper</b>		
	<b>Item no.: 231-902</b> 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> 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>	

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



	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> 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> 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>
<b>Coding</b>		
	<b>Item no.: 231-129</b> Coding key; snap-on type; light gray	<a href="http://www.wago.com/231-129">www.wago.com/231-129</a>
	<b>Item no.: 231-130</b> Coding key; snap-on type; light gray	<a href="http://www.wago.com/231-130">www.wago.com/231-130</a>
<b>General accessories</b>		
	<b>Item no.: 231-668</b> Lockout caps; for covering unused clamping units; gray	<a href="http://www.wago.com/231-668">www.wago.com/231-668</a>
<b>tools</b>		
	<b>Item no.: 209-130</b> 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> 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.: 210-250</b> Operating tool; for MCS MINI & MIDI with CAGE CLAMP® connection; red	<a href="http://www.wago.com/210-250">www.wago.com/210-250</a>
	<b>Item no.: 210-657</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
	<b>Item no.: 210-720</b> 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> Push-button; loose	<a href="http://www.wago.com/231-131">www.wago.com/231-131</a>
	<b>Item no.: 231-159</b> Operating tool; natural	<a href="http://www.wago.com/231-159">www.wago.com/231-159</a>
	<b>Item no.: 231-231</b> Combination operating tool; red	<a href="http://www.wago.com/231-231">www.wago.com/231-231</a>
	<b>Item no.: 231-291</b> Operating tool; loose; red	<a href="http://www.wago.com/231-291">www.wago.com/231-291</a>
	<b>Item no.: 280-432</b> 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> Operating tool; made of insulating material; 3-way	<a href="http://www.wago.com/280-433">www.wago.com/280-433</a>

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



**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.: 280-435**  
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.: 280-437**  
Operating tool; made of insulating material; 7-way

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



**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.: 280-440**  
Operating tool; made of insulating material; 10-way

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

#### Marking accessories



**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.: 232-603**  
Strain relief housing; gray

[www.wago.com/232-603](http://www.wago.com/232-603)

#### Insulation stop



**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)

**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)

## Downloads

### Documentation

#### Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

Download

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

## CAD/CAE-Data

### CAD data

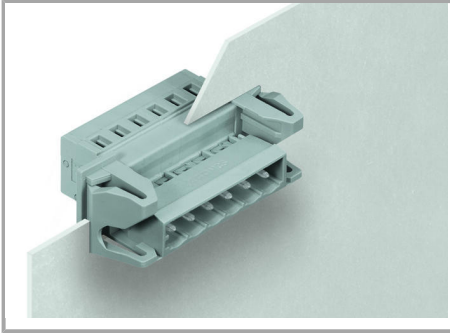
2D/3D Models 231-603/114-000

URL

Download

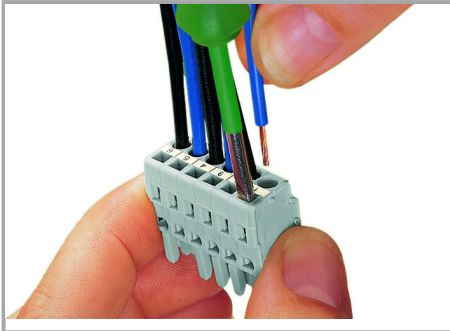
## Installation Notes

### Application

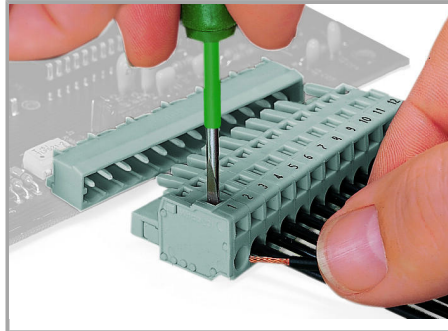


Male connector, with snap-in flanges for feedthrough applications, for 0.5 ... 2.5 mm plate thickness

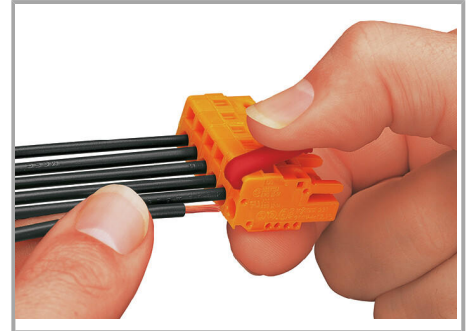
### Inserting a conductor



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

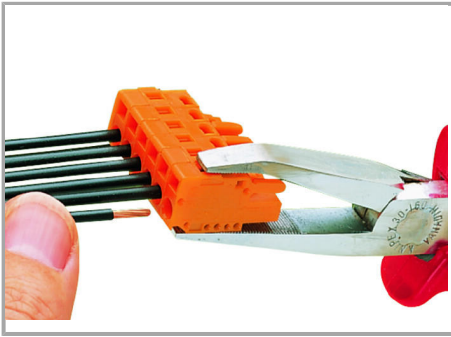


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



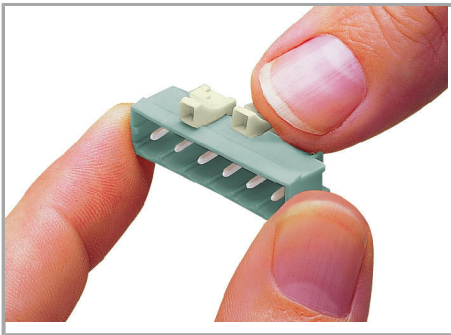
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).

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



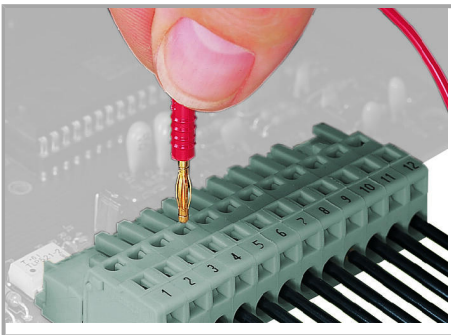
Inserting a conductor via operating tool.

### Coding



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

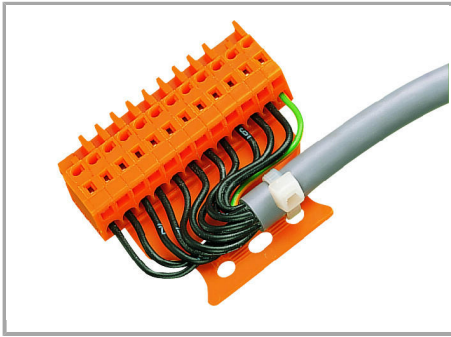
### Testing



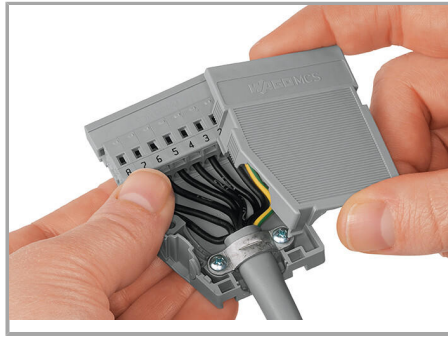
Testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP®.

### Assembly

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

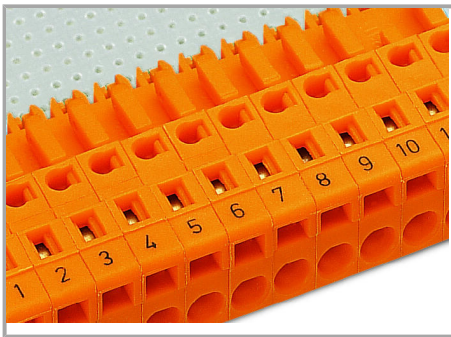


Male connector with strain relief plate



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.](#)

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