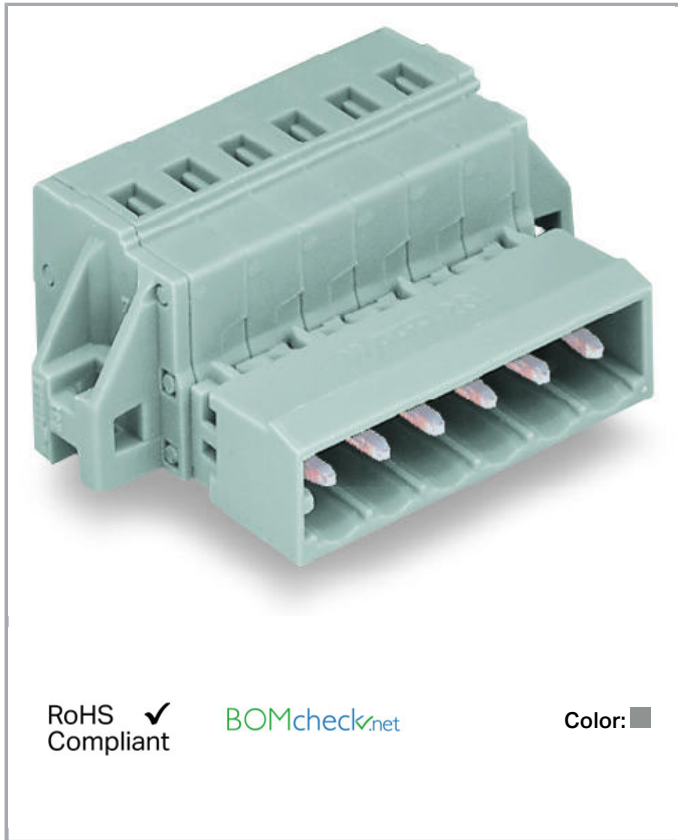


Data sheet | Item number: 231-612/019-000/035-000

1-conductor male connector; clamping collar; Strain relief plate; 2.5 mm²; Pin spacing 5 mm; 12-pole; 2,50 mm²; gray



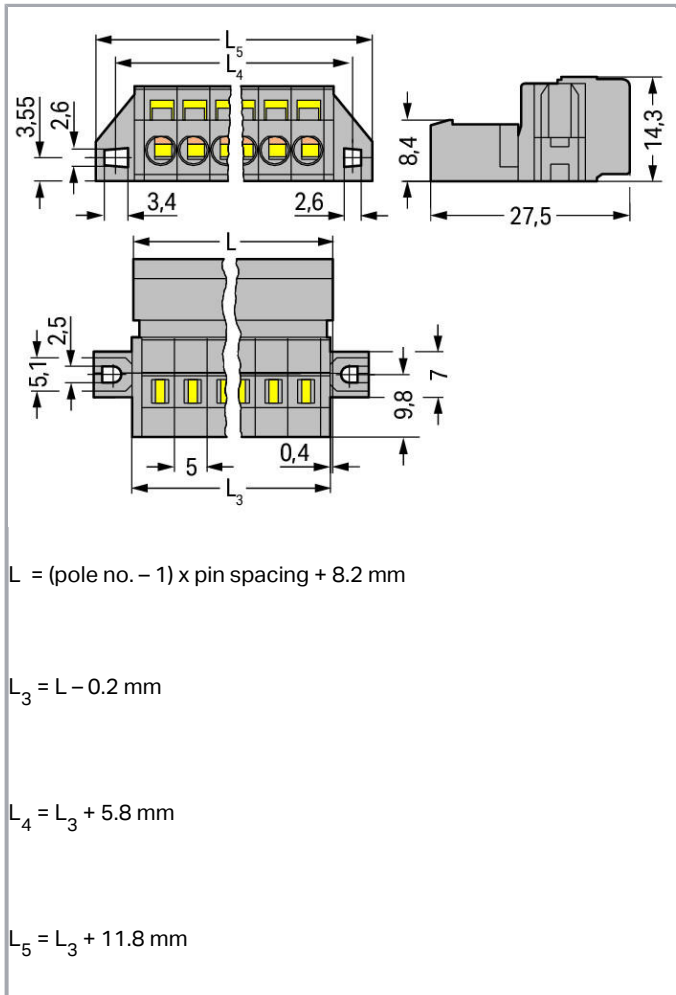
www.wago.com/231-612/019-000/035-000



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.



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

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.

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 ² / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 2,5 mm ² / 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 ²
Fine-stranded conductor with ferrule without plastic collar	0,25 ... 2,5 mm ²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
No. of poles	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	74,8 mm / 2.945 inch
Height	14,3 mm / 0.563 inch
Depth	62,5 mm / 2.461 inch

Mechanical data

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

Plug connection

Contact type (pluggable connector)	Male connector/plug
Connector connection type	for conductor
Mismatching 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	Electrolytic copper (E _{Cu})
Contact plating	tin-plated
Fire load	0.419 MJ
Weight	21.2 g

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

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Environmental Requirements


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

Commercial data



Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918258418
Customs Tariff No.	85366990990

Approvals / Certificates


Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CSA DEKRA Certification B.V.	C22.2	1466354

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR UL International Germany GmbH	UL 1977	E45171

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

Counterpart



Item no. 231-112/026-000

1-conductor female plug; 2.5 mm²; Pin spacing 5 mm; 12-pole; 2,50 mm²; gray

www.wago.com/231-112/026-000



Item no. 232-142

THT female header; 0.6 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 12-pole; gray

www.wago.com/232-142



Item no. 232-242

THT female header; 0.6 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 12-pole; gray

www.wago.com/232-242

Compatible products

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Marking accessories

Item no.: 210-331/500-103

Marking strips; as a DIN A4 sheet; MARKED; 1-12 (300x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-331/500-103

Item no.: 210-331/500-104

Marking strips; as a DIN A4 sheet; MARKED; 13-24 (300x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-331/500-104

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

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

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

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

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	<p>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</p>	<p>www.wago.com/210-332/500-206</p>
	<p>Item no.: 210-833 Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white</p>	<p>www.wago.com/210-833</p>
	<p>Item no.: 210-834 Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white</p>	<p>www.wago.com/210-834</p>
Strain relief plate		
	<p>Item no.: 232-612 Strain relief housing; gray</p>	<p>www.wago.com/232-612</p>
assembling		
	<p>Item no.: 209-147 Self-tapping screw</p>	<p>www.wago.com/209-147</p>
	<p>Item no.: 231-194 Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø</p>	<p>www.wago.com/231-194</p>
	<p>Item no.: 231-195 Screw with nut; M2x12; for fixing element</p>	<p>www.wago.com/231-195</p>
	<p>Item no.: 231-295 Screw with nut</p>	<p>www.wago.com/231-295</p>
Insulation stop		
	<p>Item no.: 231-670 Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white</p>	<p>www.wago.com/231-670</p>
	<p>Item no.: 231-671 Insulation stop; 0.25 - 0.5 mm²; light gray</p>	<p>www.wago.com/231-671</p>
	<p>Item no.: 231-672 Insulation stop; 0.75 - 1 mm²; dark gray</p>	<p>www.wago.com/231-672</p>
Jumper		
	<p>Item no.: 231-902 Comb-style jumper bar; for 5 mm and 5.08 mm pin spacing; reduces conductor size to 1.5 mm; gray</p>	<p>www.wago.com/231-902</p>
	<p>Item no.: 231-903 Comb-style jumper bar; 3-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray</p>	<p>www.wago.com/231-903</p>
	<p>Item no.: 231-905 Comb-style jumper bar; 5-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray</p>	<p>www.wago.com/231-905</p>
	<p>Item no.: 231-907 Comb-style jumper bar; 7-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray</p>	<p>www.wago.com/231-907</p>
	<p>Item no.: 231-910 Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing;</p>	<p>www.wago.com/231-910</p>

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






insulated; gray












ferrule

	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	www.wago.com/216-101
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	www.wago.com/216-102
	Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103
	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-104
	Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated	www.wago.com/216-106
	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	www.wago.com/216-121
	Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	www.wago.com/216-122
	Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-123
	Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-124
	Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-131
	Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
	Item no.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-141
	Item no.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-142
	Item no.: 216-143 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-143
	Item no.: 216-144 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	www.wago.com/216-144
	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151

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

	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	www.wago.com/216-241
	Item no.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
	Item no.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-243
	Item no.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-244
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	www.wago.com/216-262
	Item no.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	www.wago.com/216-263
	Item no.: 216-264 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-264
	Item no.: 216-284 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	www.wago.com/216-284

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

	Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-322
tools		
	Item no.: 209-130 Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material	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
	Item no.: 210-250 Operating tool; for MCS MINI & MIDI with CAGE CLAMP® connection; red	www.wago.com/210-250
	Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	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
	Item no.: 231-131 Push-button; loose	www.wago.com/231-131
	Item no.: 231-159 Operating tool; natural	www.wago.com/231-159
	Item no.: 231-231 Combination operating tool; red	www.wago.com/231-231
	Item no.: 231-291 Operating tool; loose; red	www.wago.com/231-291
	Item no.: 280-432 Operating tool; made of insulating material; 2-way	www.wago.com/280-432
	Item no.: 280-433 Operating tool; made of insulating material; 3-way	www.wago.com/280-433
	Item no.: 280-434 Operating tool; made of insulating material; 4-way	www.wago.com/280-434
	Item no.: 280-435 Operating tool; made of insulating material; 5-way; gray	www.wago.com/280-435
	Item no.: 280-436 Operating tool; made of insulating material; 6-way	www.wago.com/280-436

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



Item no.: 280-437
Operating tool; made of insulating material; 7-way

www.wago.com/280-437

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

www.wago.com/280-438



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

www.wago.com/280-440

General accessories

Item no.: 231-668
Lockout caps; for covering unused clamping units; gray

www.wago.com/231-668

Downloads

Documentation

Additional Information

Technical explanations

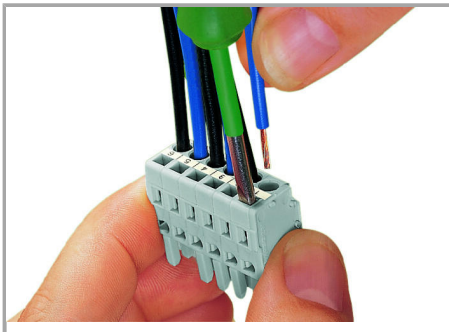
Apr 3, 2019

pdf
3.6 MB

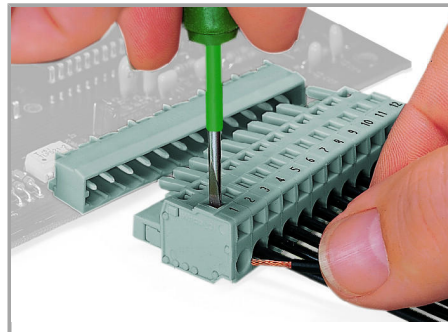
[Download](#)

Installation Notes

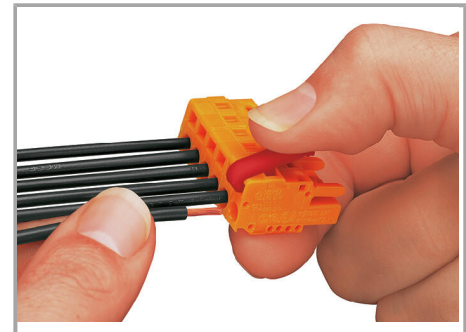
Inserting a conductor



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

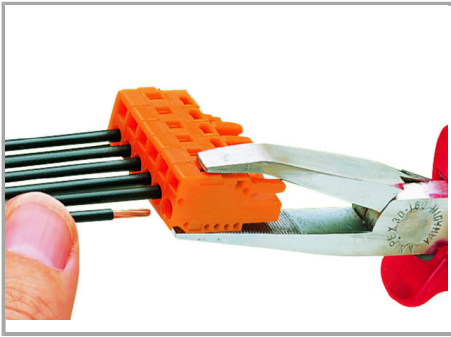


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



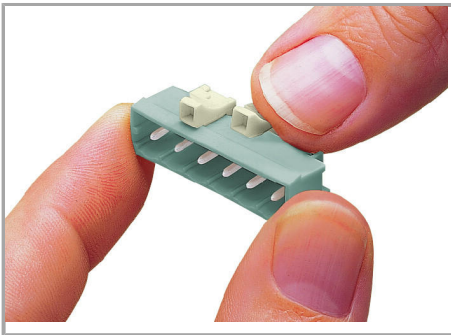
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).

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



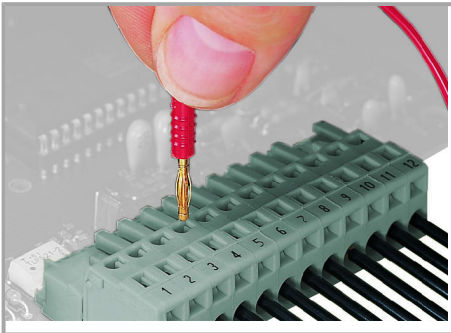
Inserting a conductor via operating tool.

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.](#)

[Show all products from the family](#)

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