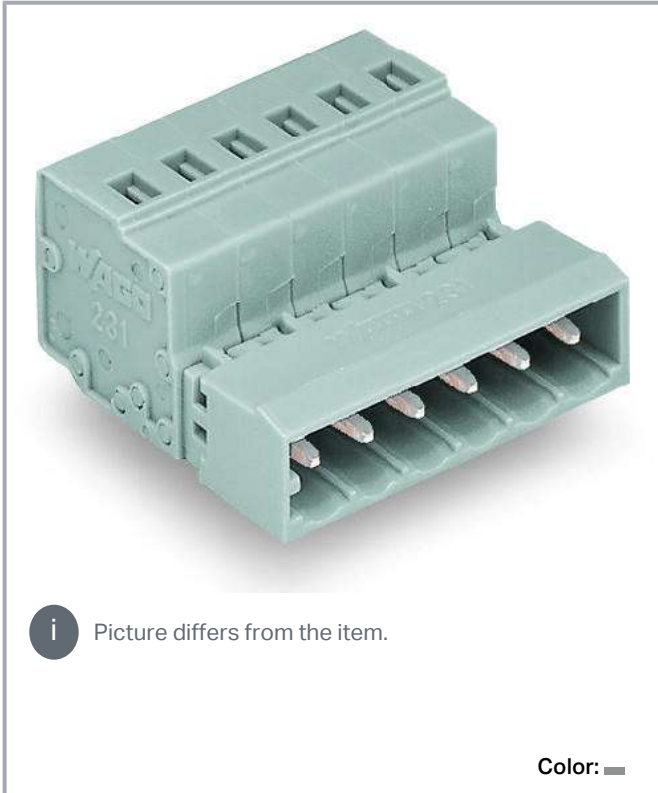


Data sheet | Item number: 231-616

Male connector; 16-pole; Pin spacing 5 mm; gray

www.wago.com/231-616



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

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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® 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!



- 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

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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	16
Total number of potentials	16
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 ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Number of poles	16
Conductor entry direction to mating direction	0°

Physical data

Pin spacing	5 mm / 0.197 inch
Width	83.2 mm / 3.276 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	gray
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 _{Cu})
Contact plating	tin-plated
Fire load	0.419 MJ
Weight	23.9 g

Environmental requirements


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

Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	25 Stück
Packaging type	box
Country of origin	DE
GTIN	4044918258777
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

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS	-	19-

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



American Bureau of Shipping


HG1869876-PDA

DNV GL - TAE000016Z
Det Norske Veritas, Germanischer Lloyd










LR IEC 61984 96/20035 (E5)
Lloyds Register

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1977	E45171

Counterpart

	Item no.2231-116/008-000 Female plug; 16-pole; push-button; snap-in mounting feet;12 AWG max; pin spacing 5 mm;1-conductor per pole; gray	www.wago.com/2231-116/008-000
	Item no.2231-116/026-000 Female plug; 16-pole; push-button; 12 AWG max; pin spacing 5 mm;1-conductor per pole; gray	www.wago.com/2231-116/026-000
	Item no.2231-116/102-000 Female plug; 16-pole; push-button; with integrated end plate;12 AWG max; pin spacing 5 mm;1-conductor per pole; gray	www.wago.com/2231-116/102-000
	Item no.2231-116/031-000 Female plug; 16-pole; push-button; mounting flange;12 AWG max; pin spacing 5 mm;1-conductor per pole; gray	www.wago.com/2231-116/031-000
	Item no.2231-116/037-000 Female plug; 16-pole; push-button; locking lever;12 AWG max; pin spacing 5 mm;1-conductor per pole; gray	www.wago.com/2231-116/037-000
	Item no.231-116/008-000 Female plug; 16-pole; snap-in mounting feet; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray	www.wago.com/231-116/008-000
	Item no.231-116/026-000 Female plug; 16-pole; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray	www.wago.com/231-116/026-000
	Item no.231-116/027-000	

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



Female plug; 16-pole; mounting flange with reinforcing strip; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-116/027-000

Item no.231-116/031-000

Female plug; 16-pole; mounting flange; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-116/031-000



Item no.231-116/037-000

Female plug; 16-pole; locking lever; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-116/037-000



Item no.231-116/102-000

Female plug; 16-pole; with integrated end plate; 12 AWG max; pin spacing 5 mm; 1 conductor per pole; gray

www.wago.com/231-116/102-000



Item no.231-2116/026-000

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; with integrated end plate; 2,50 mm²; gray

www.wago.com/231-2116/026-000



Item no.231-2116/037-000

2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; Lateral locking levers; 2,50 mm²; gray

www.wago.com/231-2116/037-000



Item no.232-116/026-000

1-conductor female connector, angled; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; 2,50 mm²; gray

www.wago.com/232-116/026-000



Item no.232-146

THT female header; straight; Pin spacing 5 mm; 16-pole; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-146



Item no.232-146/005-000

Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; straight; Pin spacing 5 mm; 16-pole; gray

www.wago.com/232-146/005-000



Item no.232-146/005-000/039-000

Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; straight; Locking lever; Pin spacing 5 mm; 16-pole; gray

www.wago.com/232-146/005-000/039-000



Item no.232-146/031-000

THT female header; straight; Pin spacing 5 mm; 16-pole; clamping collar; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-146/031-000



Item no.232-146/039-000

THT female header; straight; Pin spacing 5 mm; 16-pole; Locking lever; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-146/039-000



Item no.232-146/047-000

THT female header; straight; Pin spacing 5 mm; 16-pole; Spacer flange; 0.6 x 1.0 mm solder pin; gray

www.wago.com/232-146/047-000

Optional accessories

















Tools

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

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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
	Item no.: 209-132 Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material	www.wago.com/209-132
	Item no.: 231-159 Operating tool; natural	www.wago.com/231-159
	Item no.: 210-250 Operating tool; for MCS MINI & MIDI with CAGE CLAMP® connection; red	www.wago.com/210-250
	Item no.: 231-231 Combination operating tool; red	www.wago.com/231-231
	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
	Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured	www.wago.com/210-720
	Item no.: 231-131 Operating tool; made of insulating material; 1-way; loose; white	www.wago.com/231-131
	Item no.: 231-291 Operating tool; made of insulating material; 1-way; loose; red	www.wago.com/231-291
	Item no.: 280-432 Operating tool; made of insulating material; 2-way; white	www.wago.com/280-432
	Item no.: 280-434 Operating tool; made of insulating material; 4-way	www.wago.com/280-434
	Item no.: 280-437 Operating tool; made of insulating material; 7-way	www.wago.com/280-437
	Item no.: 280-440 Operating tool; made of insulating material; 10-way	www.wago.com/280-440
	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
	Item no.: 280-438 Operating tool; made of insulating material; 8-way	www.wago.com/280-438

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



Item no.: 280-433

Operating tool; made of insulating material; 3-way

www.wago.com/280-433

Marking accessories

Marking strip

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.: 210-332/500-206

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

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

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

Coding

Coding



Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Cover

Cover



Item no.: 231-668

Lockout caps; for covering unused clamping units; gray

www.wago.com/231-668

Ferrules

Ferrule

Item no.: 216-101

Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-101

Item no.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-104

Item no.: 216-106

Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-106

Item no.: 216-102

Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

www.wago.com/216-102

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



Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103
Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-123
Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-122
Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-124
Item no.: 216-142 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.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121
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.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-131
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.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
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.: 216-144 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; silver-colored	www.wago.com/216-144
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.: 216-223	www.wago.com/216-223
















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Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

	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.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	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.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	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.: 216-263 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
	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.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	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
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-302

Jumpers

Jumper

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

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Data sheet | Item number: 231-616

www.wago.com/231-616



	Item no.: 231-905 Jumper; for conductor entry; 5-way; insulated; gray	www.wago.com/231-905
	Item no.: 231-903 Jumper; for conductor entry; 3-way; insulated; gray	www.wago.com/231-903
	Item no.: 231-907 Jumper; for conductor entry; 7-way; insulated; gray	www.wago.com/231-907
	Item no.: 231-910 Jumper; for conductor entry; 10-way; insulated; gray	www.wago.com/231-910
	Item no.: 231-902 Jumper; for conductor entry; 2-way; insulated; gray	www.wago.com/231-902

Insulations stops

Insulation stop		
	Item no.: 231-672 Insulation stop; 0.75 - 1 mm ² ; dark gray	www.wago.com/231-672
	Item no.: 231-670 Insulation stop; 0.08-0.2 mm ² / 0.2 mm ² "s"; white	www.wago.com/231-670
	Item no.: 231-671 Insulation stop; 0.25 - 0.5 mm ² ; light gray	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 231-616	URL	Download
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CAE data

EPLAN Data Portal 231-616	URL	Download
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Subject to changes. Please also observe the further product documentation!

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Environmental Product Compliance

Compliance Search

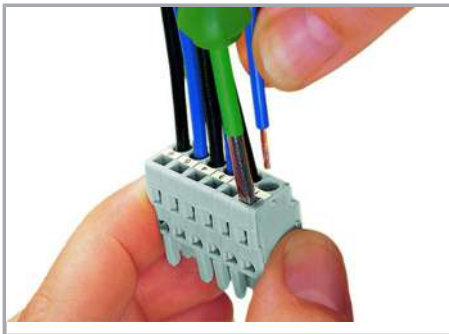
Environmental Product Compliance 231-616

[URL](#)

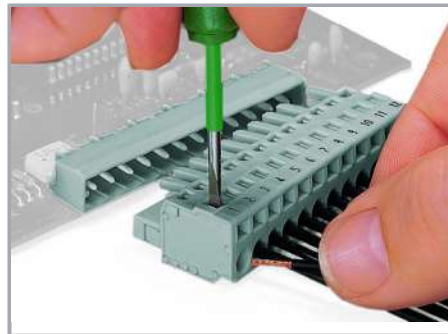
[Download](#)

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole;
2,50 mm²; gray

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.



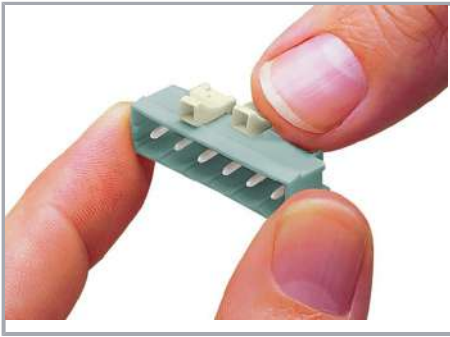
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



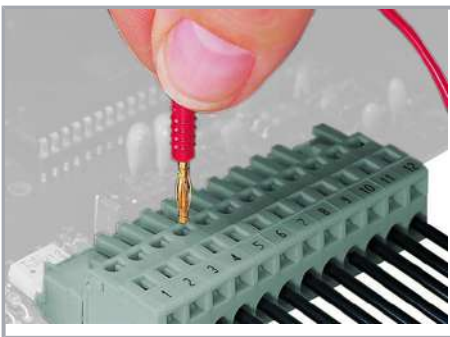
Inserting a conductor via operating tool.

Coding

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



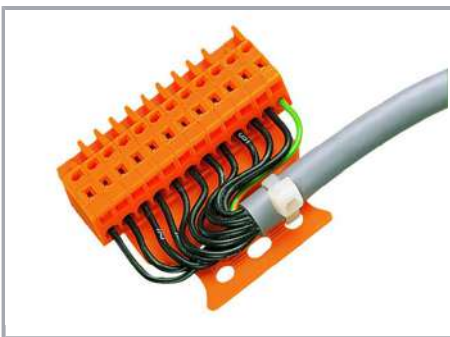
Coding a male header – fitting coding key(s).



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®

Marking

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

Data sheet | Item number: 231-616

www.wago.com/231-616



Labeling via direct marking or self-adhesive strips.

Product family

MCS MIDI Classic

[Show all products from the family](#)

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