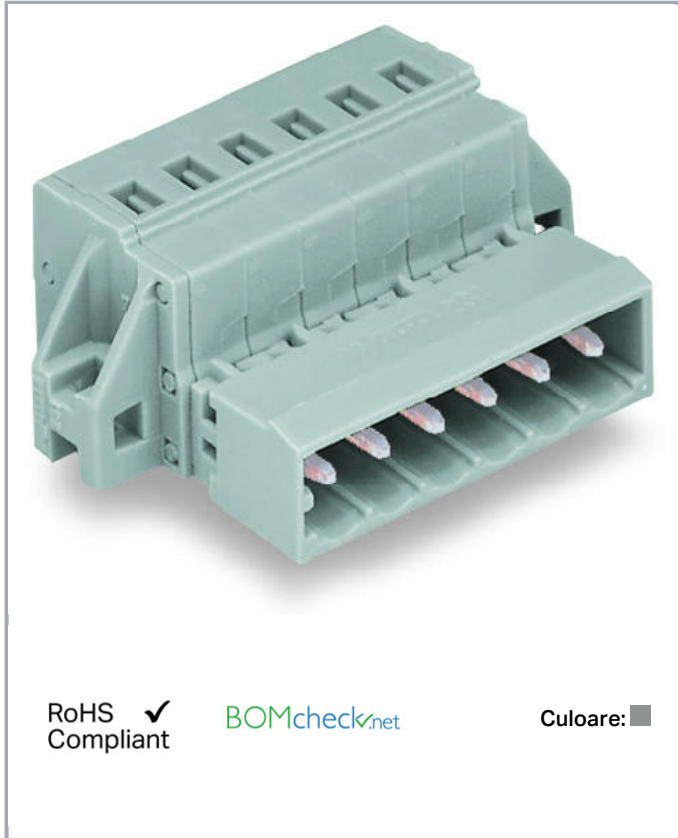


Fișă tehnică | Număr articol: 231-613/019-000

1-conductor male connector; clamping collar; 2.5 mm²; Pin spacing 5 mm;
13-pole; 2,50 mm²; gray

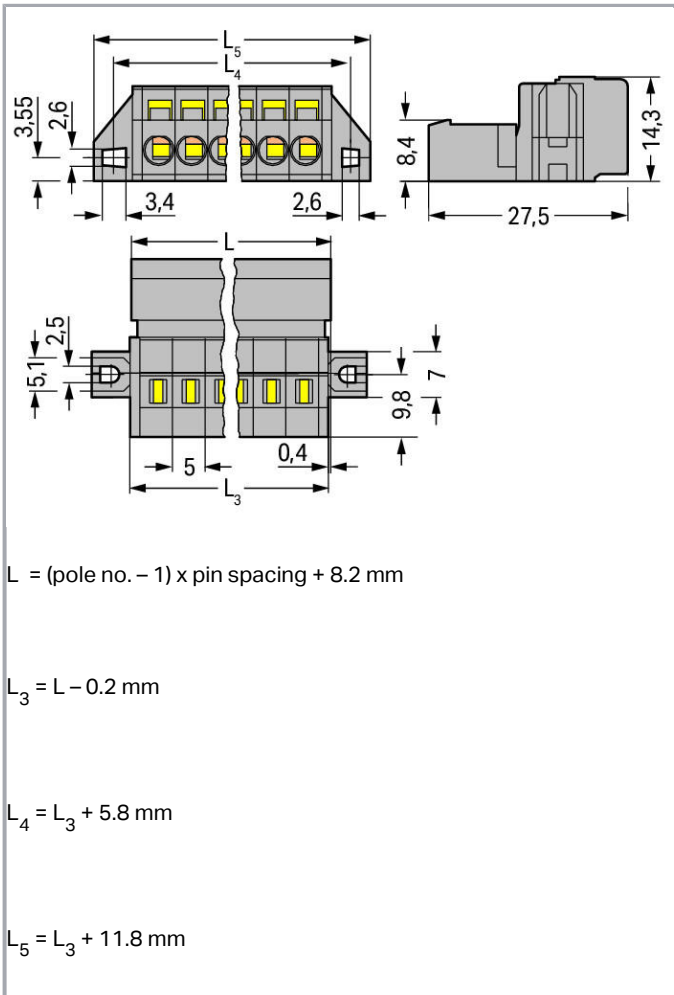
www.wago.com/231-613/019-000



Supus modificărilor.

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Aveți întrebări despre produsele noastre?
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.



Descriere articol

- 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.

Supus modificărilor.

**Date****Electrical data****Ratings per IEC/EN 60664-1**

Ratings per	IEC/EN 60664-1
Nominal 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) ≙ 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 UL 1977	600 V
Rated current UL 1977	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

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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
Pole No.	13
Total number of connection points	13
Total number of potentials	13
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	79,8 mm / 3.142 inch
Height	14,3 mm / 0.563 inch
Depth	27,5 mm / 1.083 inch

Mechanical data

Mounting type	Mounting flange
Mounting type	Feed-through mounting Panel 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
Insulation 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	0,369 MJ
Weight	20,7 g

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Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

Environmental Requirements


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

Commercial data



Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918258548
Customs tariff number	85366990990

Aprobări / certificate


Country specific Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	CSA DEKRA Certification B.V.	C22.2	1466354

Ship Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	ABS American Bureau of Shipping	-	19- HG1869876- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

UL-Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	UL Underwriters Laboratories Inc.	UL 1059	E45172- 19911118
	UR UL International Germany GmbH	UL 1977	E45171

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Counterpart



Nr. articol231-113/026-000

1-conductor female plug; 2.5 mm²; Pin spacing 5 mm; 13-pole; 2,50 mm²; gray

www.wago.com/231-113/026-000



Nr. articol232-143

THT female header; 0.6 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 13-pole; gray

www.wago.com/232-143



Nr. articol232-243

THT female header; 0.6 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 13-pole; gray

www.wago.com/232-243

Produse compatibile

Marking accessories

Nr. articol: 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

Nr. articol: 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

Nr. articol: 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

Nr. articol: 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

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Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 210-833 Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white	www.wago.com/210-833
	Nr. articol: 210-834 Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white	www.wago.com/210-834
tools		
	Nr. articol: 209-130 Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material	www.wago.com/209-130
	Nr. articol: 209-132 Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material	www.wago.com/209-132
	Nr. articol: 210-250 Operating tool; for MCS MINI & MIDI with CAGE CLAMP® connection; red	www.wago.com/210-250
	Nr. articol: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	www.wago.com/210-657
	Nr. articol: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	www.wago.com/210-720
	Nr. articol: 231-131 Push-button; loose	www.wago.com/231-131
	Nr. articol: 231-159 Operating tool; natural	www.wago.com/231-159
	Nr. articol: 231-231 Combination operating tool; red	www.wago.com/231-231
	Nr. articol: 231-291 Operating tool; loose; red	www.wago.com/231-291
	Nr. articol: 280-432 Operating tool; made of insulating material; 2-way	www.wago.com/280-432
	Nr. articol: 280-433 Operating tool; made of insulating material; 3-way	www.wago.com/280-433
	Nr. articol: 280-434 Operating tool; made of insulating material; 4-way	www.wago.com/280-434
	Nr. articol: 280-435 Operating tool; made of insulating material; 5-way; gray	www.wago.com/280-435

Supus modificărilor.



Nr. articol: 280-436
Operating tool; made of insulating material; 6-way

www.wago.com/280-436



Nr. articol: 280-437
Operating tool; made of insulating material; 7-way

www.wago.com/280-437



Nr. articol: 280-438
Operating tool; made of insulating material; 8-way

www.wago.com/280-438



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

www.wago.com/280-440

ferrule



Nr. articol: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

www.wago.com/216-101



Nr. articol: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

www.wago.com/216-102



Nr. articol: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-103



Nr. articol: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

www.wago.com/216-104



Nr. articol: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated

www.wago.com/216-106



Nr. articol: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

www.wago.com/216-121



Nr. articol: 216-122
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

www.wago.com/216-122



Nr. articol: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

www.wago.com/216-123



Nr. articol: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

www.wago.com/216-124



Nr. articol: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-131



Nr. articol: 216-132
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

www.wago.com/216-132



Nr. articol: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-141




















Nr. articol: 216-142
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

www.wago.com/216-142

Nr. articol: 216-143















Supus modificărilor.

	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
	Nr. articol: 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
	Nr. articol: 216-151	
	Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Nr. articol: 216-152	
	Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Nr. articol: 216-201	
	Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Nr. articol: 216-202	
	Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Nr. articol: 216-203	
	Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Nr. articol: 216-204	
	Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Nr. articol: 216-221	
	Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Nr. articol: 216-222	
	Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Nr. articol: 216-223	
	Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Nr. articol: 216-224	
	Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 216-263	

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	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
	Nr. articol: 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
	Nr. articol: 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
	Nr. articol: 216-301	
	Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-301
	Nr. articol: 216-302	
	Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-302
	Nr. articol: 216-321	
	Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Nr. articol: 216-322	
	Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-322
assembling		
	Nr. articol: 209-147 Self-tapping screw	www.wago.com/209-147
	Nr. articol: 231-194 Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø	www.wago.com/231-194
	Nr. articol: 231-195 Screw with nut; M2x12; for fixing element	www.wago.com/231-195
	Nr. articol: 231-295 Screw with nut	www.wago.com/231-295
Jumper		
	Nr. articol: 231-902 Comb-style jumper bar; for 5 mm and 5.08 mm pin spacing; reduces conductor size to 1.5 mm; gray	www.wago.com/231-902
	Nr. articol: 231-903 Comb-style jumper bar; 3-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray	www.wago.com/231-903
	Nr. articol: 231-905 Comb-style jumper bar; 5-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray	www.wago.com/231-905
	Nr. articol: 231-907 Comb-style jumper bar; 7-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray	www.wago.com/231-907
	Nr. articol: 231-910 Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray	www.wago.com/231-910
Insulation stop		

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Nr. articol: 231-670
Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white

www.wago.com/231-670



Nr. articol: 231-671
Insulation stop; 0.25 - 0.5 mm²; light gray

www.wago.com/231-671



Nr. articol: 231-672
Insulation stop; 0.75 - 1 mm²; dark gray

www.wago.com/231-672

General accessories



Nr. articol: 231-668
Lockout caps; for covering unused clamping units; gray

www.wago.com/231-668

Coding



Nr. articol: 231-129
Coding key; snap-on type; light gray

www.wago.com/231-129

Descărcări

Documentation

Additional Information

Technical explanations

Apr 3, 2019

pdf
3,6 MB

Descărcare

CAD/CAE-Data

CAD data

2D/3D Models 231-613/019-000

URL

Descărcare

CAE data

EPLAN Data Portal 231-613/019-000

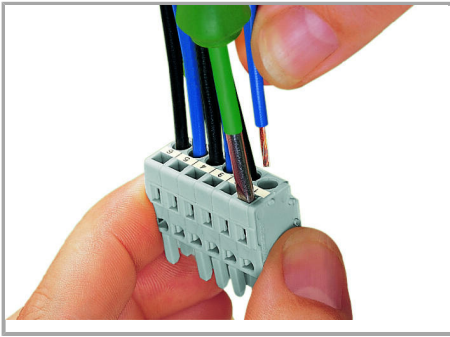
URL

Descărcare

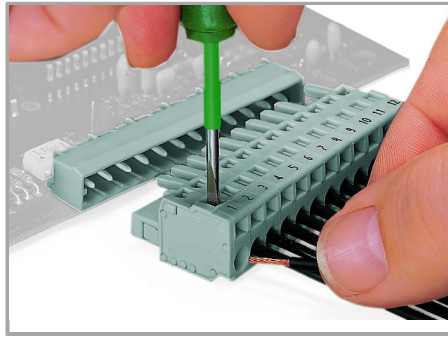
Installation Notes

Inserting a conductor

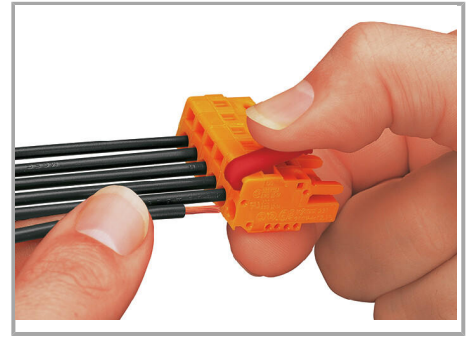
Supus modificărilor.



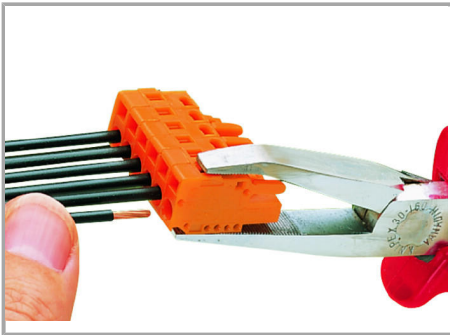
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.



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

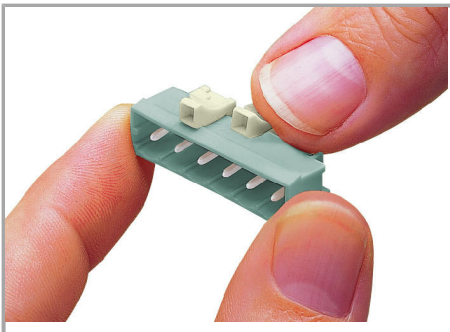


Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).



Inserting a conductor via operating tool.

Coding



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

Testing

Supus modificărilor.



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

Assembly



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.

Familie de produse

Supus modificărilor.



MCS MIDI Classic
Afișare globală produse din familie.

Supus modificărilor.

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