

Data sheet | Item number: 231-638

1-conductor male connector; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orange

www.wago.com/231-638



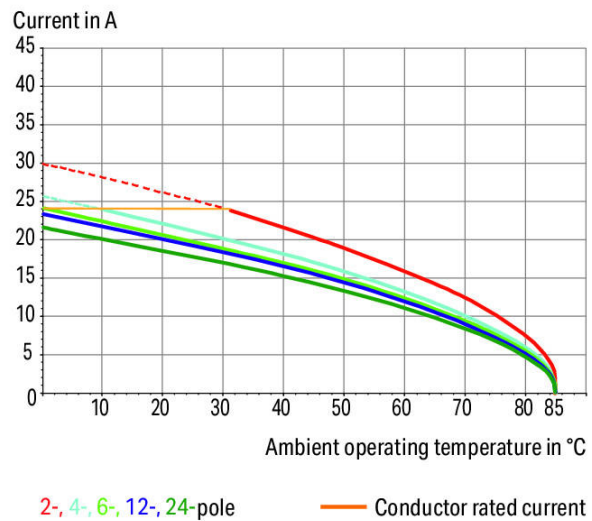
RoHS Compliant

BOMcheck.net

Color:

Derating Curve

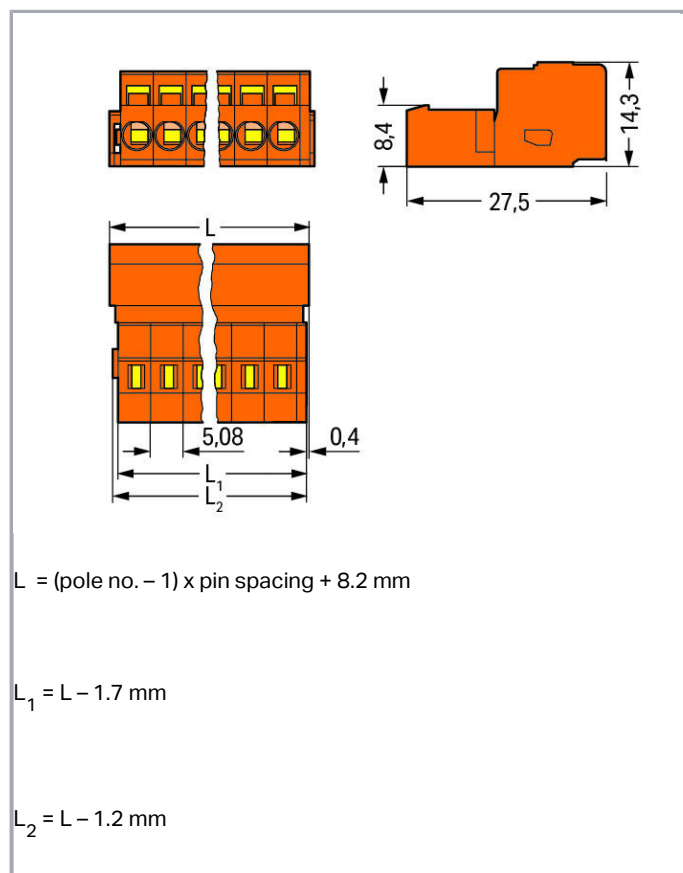
1-conductor female connector (231-102/026-000) with
1-conductor male header (231-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



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

WAGO Kontakttechnik GmbH & Co. KG
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Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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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.

Data

Electrical data

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

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**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) $\hat{=}$ 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 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
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.	8

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



Total number of connection points	8
Total number of potentials	8
Number of connection types	1
Number of levels	1
Conductor entry direction to mating direction	0°

Geometrical Data

Pin spacing	5,08 mm / 0.2 inch
Width	43,84 mm / 1.726 inch
Height	14,3 mm / 0.563 inch
Depth	27,5 mm / 1.083 inch

Plug connection

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

Material Data

Color	orange
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	0.207 MJ
Weight	12.4 g

Environmental Requirements

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

Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	DE
GTIN	4044918260282

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

Customs tariff number

85366990990

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

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
	LR Lloyds Register	IEC 61984	96/20035 (E5)

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Germany GmbH	UL 1977	E45171
	UR Underwriters Laboratories Inc.	UL 1059	E45172

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Counterpart

**Item no.2231-308/008-000**1-conductor female plug; push-button; Snap-in mounting feet; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/2231-308/008-000**Item no.2231-308/026-000**1-conductor female plug; push-button; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/2231-308/026-000**Item no.2231-308/031-000**1-conductor female plug; push-button; clamping collar; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/2231-308/031-000**Item no.2231-308/037-000**1-conductor female plug; push-button; Locking lever; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/2231-308/037-000**Item no.2231-308/102-000**1-conductor female plug; push-button; with integrated end plate; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/2231-308/102-000**Item no.231-2308/026-000**2-conductor female connector; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-2308/026-000**Item no.231-2308/037-000**2-conductor female connector; Locking lever; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-2308/037-000**Item no.231-308/008-000**1-conductor female plug; Snap-in mounting feet; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-308/008-000**Item no.231-308/026-000**1-conductor female plug; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-308/026-000**Item no.231-308/031-000**1-conductor female plug; clamping collar; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-308/031-000**Item no.231-308/027-000**1-conductor female plug; clamping collar; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-308/027-000**Item no.231-308/037-000**1-conductor female plug; Locking lever; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orangewww.wago.com/231-308/037-000**Item no.232-168**

THT female header; 0.6 x 1.0 mm solder pin; straight; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-168

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

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**Item no.231-308/102-000**

1-conductor female plug; with integrated end plate; 2.5 mm²; Pin spacing 5.08 mm; 8-pole; 2,50 mm²; orange

www.wago.com/231-308

/102-000

**Item no.232-168/039-000**

THT female header; 0.6 x 1.0 mm solder pin; straight; Locking lever; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-168

/039-000

**Item no.232-168/031-000**

THT female header; 0.6 x 1.0 mm solder pin; straight; clamping collar; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-168

/031-000

**Item no.232-168/047-000**

THT female header; 0.6 x 1.0 mm solder pin; straight; Spacer flange; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-168

/047-000

**Item no.232-268**

THT female header; 0.6 x 1.0 mm solder pin; angled; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-268**Item no.232-268/031-000**

THT female header; 0.6 x 1.0 mm solder pin; angled; clamping collar; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-268

/031-000

**Item no.232-268/047-000**

THT female header; 0.6 x 1.0 mm solder pin; angled; Spacer flange; Pin spacing 5.08 mm; 8-pole; orange

www.wago.com/232-268

/047-000

Compatible products

Strain relief plate

**Item no.: 232-638**

Strain relief housing; orange

www.wago.com/232-638

Insulation stop

**Item no.: 231-670**

Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white

www.wago.com/231-670**Item no.: 231-671**

Insulation stop; 0.25 - 0.5 mm²; light gray

www.wago.com/231-671

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**Item no.: 231-672**Insulation stop; 0.75 - 1 mm²; dark graywww.wago.com/231-672**ferrule****Item no.: 216-101**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin platedwww.wago.com/216-101**Item no.: 216-102**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin platedwww.wago.com/216-102**Item no.: 216-103**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin platedwww.wago.com/216-103**Item no.: 216-104**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin platedwww.wago.com/216-104**Item no.: 216-106**Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin platedwww.wago.com/216-106**Item no.: 216-121**Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin platedwww.wago.com/216-121**Item no.: 216-122**Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin platedwww.wago.com/216-122**Item no.: 216-123**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin platedwww.wago.com/216-123**Item no.: 216-124**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin platedwww.wago.com/216-124**Item no.: 216-131**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-131**Item no.: 216-132**Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-132**Item no.: 216-141**Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-141**Item no.: 216-142**Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-142**Item no.: 216-143**Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-143**Item no.: 216-144**Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92www.wago.com/216-144**Item no.: 216-151**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin platedwww.wago.com/216-151

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

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	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
	Item no.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
	Item no.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-203
	Item no.: 216-204 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	Item no.: 216-241 Ferrule; Sleeve for 0.5 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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 mm² / 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
Jumper		
	Item no.: 231-902 Jumper; for conductor entry; gray	www.wago.com/231-902
	Item no.: 231-903 Jumper; for conductor entry; 3-way; insulated; gray	www.wago.com/231-903
	Item no.: 231-905 Jumper; for conductor entry; 5-way; insulated; gray	www.wago.com/231-905
	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
General accessories		
	Item no.: 231-669 Lockout caps; for covering unused clamping units; orange	www.wago.com/231-669
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.: 210-657 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.: 231-291 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

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**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**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

Marking accessories

Item no.: 210-331/508-103

Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-331/508-103**Item no.: 210-331/508-104**

Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-331/508-104**Item no.: 210-332/508-202**

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/210-332/508-202**Item no.: 210-332/508-204**

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/210-332/508-204**Item no.: 210-332/508-205**

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/210-332/508-205**Item no.: 210-332/508-206**

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/210-332/508-206**Item no.: 210-833**

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

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

Coding

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Item no.: 231-129

Coding key; snap-on type; light gray

www.wago.com/231-129

Downloads

CAD/CAE-Data

CAD data

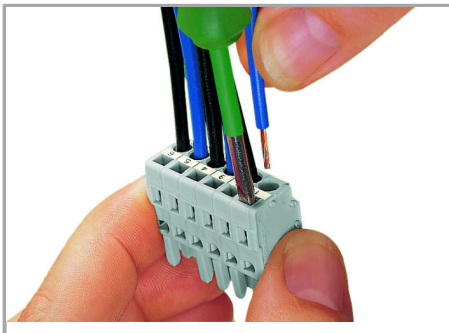
2D/3D Models 231-638	URL	Download
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CAE data

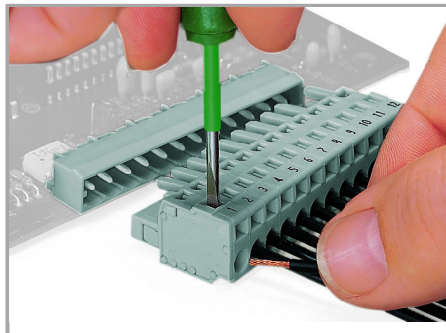
EPLAN Data Portal 231-638	URL	Download
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Installation Notes

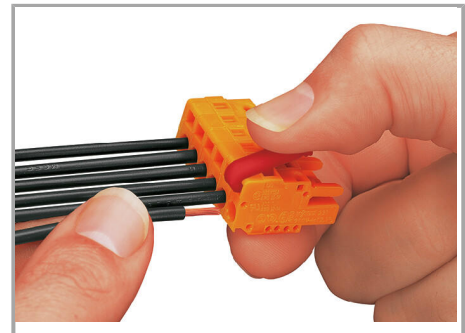
Conductor termination



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

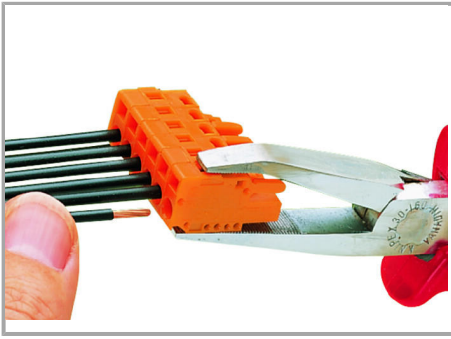


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



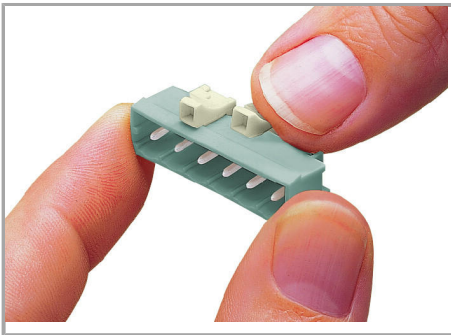
Inserting a conductor into CAGE CLAMP® unit via operating lever (231-291).

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



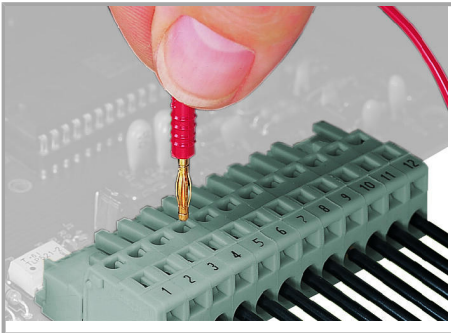
Inserting a conductor via operating tool.

Coding



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

Testing



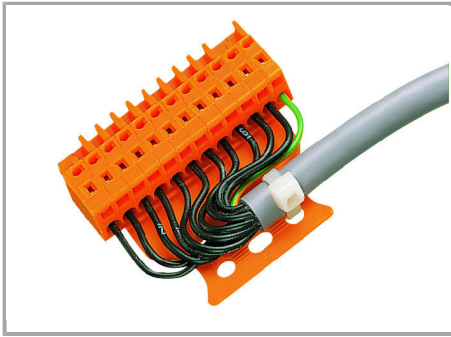
Testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP®.

Installation

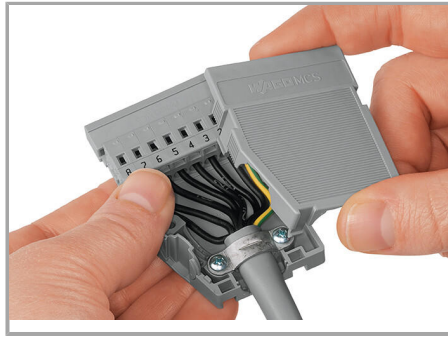
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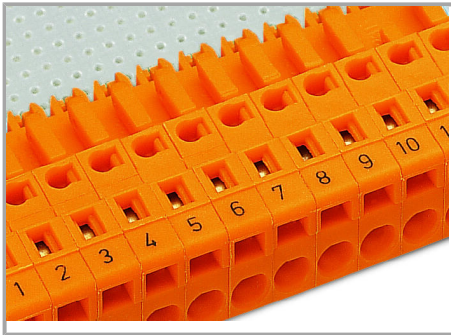


Male connector with strain relief plate



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

Marking



Labeling via direct marking or self-adhesive strips.

Product family

<i>MCS</i> MIDI Classic

[Show all products from the family](#)

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