

Data sheet | Item number: 231-116/102-000

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



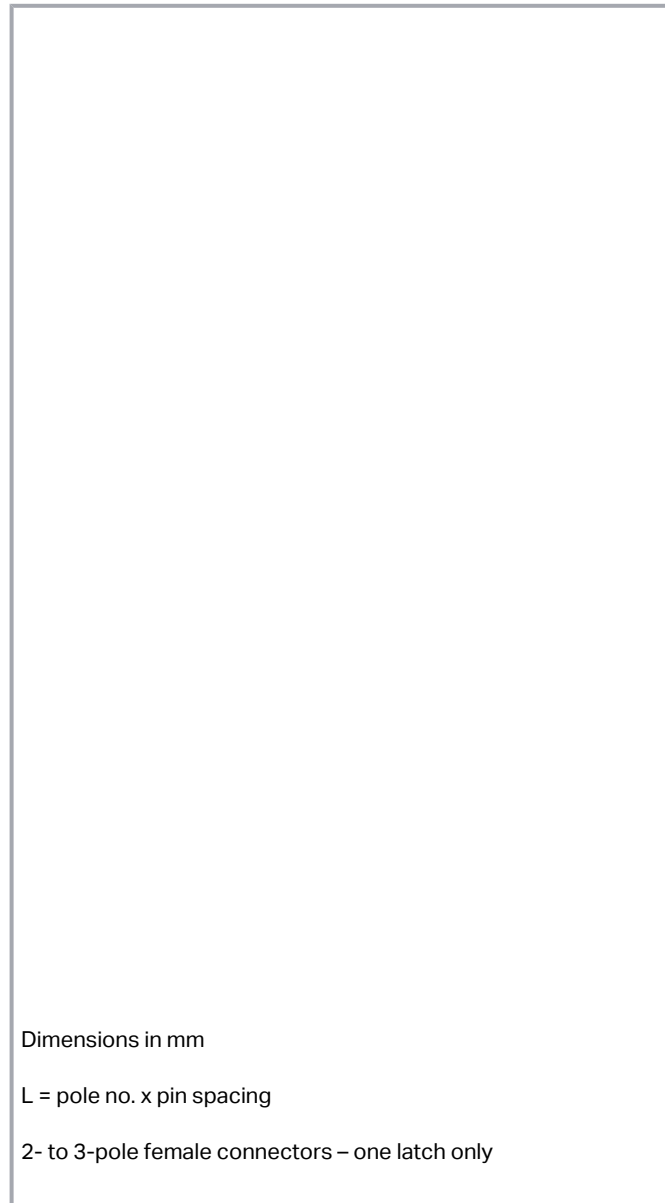
www.wago.com/231-116_102-000



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

WAGO Corporation
Germantown, WI 53022
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222
Email: info.us@wago.com | Web: www.wago.us

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Dimensions in mm

L = pole no. x pin spacing

2- to 3-pole female connectors – one latch only

Item description

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

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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:

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	16 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

CSA Approvals

Approvals per	CSA
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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	80 mm / 3.15 inch
Height	14.3 mm / 0.563 inch
Depth	26.5 mm / 1.043 inch

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No
Plugging without loss of pin spacing	1
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	Copper alloy
Contact plating	tin-plated
Fire load	0.384 MJ
Weight	27.8 g

Environmental requirements


Limit temperature range	-60 ... +85 °C
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Commercial data

Product Group	3 (Multi Conn. System)
PU (SPU)	25 Stück
Packaging type	box
Country of origin	DE
GTIN	4044918342346
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	LR 18677-25

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS	-	19-

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American Bureau of Shipping

HG1869876-PDA



BV
Bureau Veritas S.A.

IEC 60998



11915/DO
BV

DNV GL
Det Norske Veritas, Germanischer Lloyd

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TAE000016Z

UL-Approvals

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

Counterpart



Item no.231-616
Male connector; 16-pole; Pin spacing 5 mm; gray

www.wago.com/231-616



Item no.231-146/001-000
Male header; 16-pole; THT; 1.0 x 1.0 mm solder pin; straight; pin spacing 5 mm; gray

www.wago.com/231-146/001-000



Item no.231-446/001-000
Male header; 16-pole; THT; 1.0 x 1.0 mm solder pin; angled; pin spacing 5 mm; gray

www.wago.com/231-446/001-000

Optional accessories

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

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

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

Insulations stops

Insulation stop



Item no.: 231-672
 Insulation stop; 0.75 - 1 mm²; dark gray www.wago.com/231-672



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

Jumpers

Jumper



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

















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

**Item no.: 231-902**

Jumper; for conductor entry; 2-way; insulated; gray

www.wago.com/231-902**Ferrules**

Ferrule

	Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-101
	Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-104
	Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-106
	Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	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.: 216-123 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	www.wago.com/216-203

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




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

	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 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	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	


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

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.: 216-301**
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow


www.wago.com/216-301

 **Item no.: 216-321**
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow

www.wago.com/216-321

 **Item no.: 216-322**
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green


www.wago.com/216-322

 **Item no.: 216-302**
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green

www.wago.com/216-302

Cover


Cover

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


www.wago.com/231-668

Testing accessories

Testing accessories

 **Item no.: 210-136**
Test plug; 2 mm Ø; with 500 mm cable


www.wago.com/210-136

 **Item no.: 231-661**
Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm²; light gray


www.wago.com/231-661

Tools


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.: 231-231**
Combination operating tool; red

www.wago.com/231-231

 **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**

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

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



Item no.: 280-433

Operating tool; made of insulating material; 3-way

www.wago.com/280-433

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 231-116/102-000	URL	Download
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CAE data

EPLAN Data Portal 231-116/102-000	URL	Download
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ZUKEN Portal 231-116/102-000	URL	Download
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EPLAN Data Portal 231-116/102-000	URL	Download
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Environmental Product Compliance

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Compliance Search

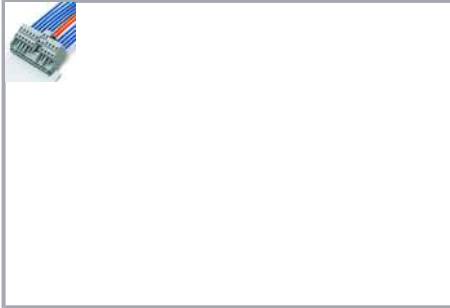
Environmental Product Compliance 231-116/102-000

URL

Download

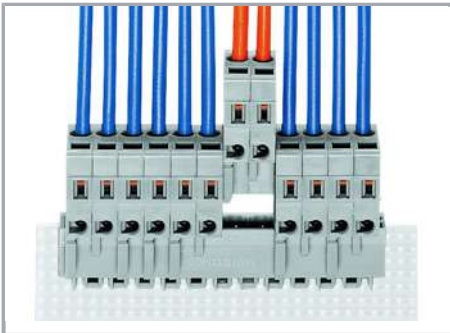
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 16-pole; with integrated end plate; 2,50 mm²; gray

Installation Notes



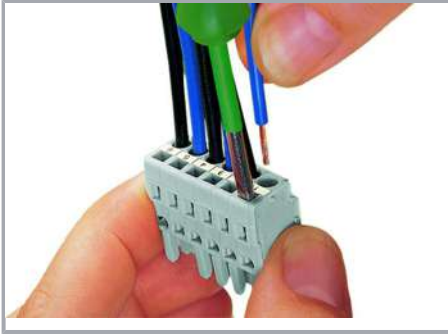
Total pole number for female connectors
= pole number for male header

Application

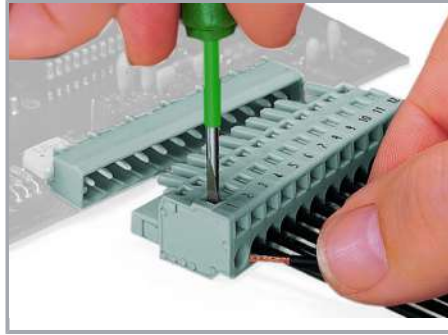


Female connectors with a built-in end plate require no extra space, while maintaining the nominal cross-section. This means: Total length of female connectors is reduced to "pole no. x pin spacing"!

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



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).

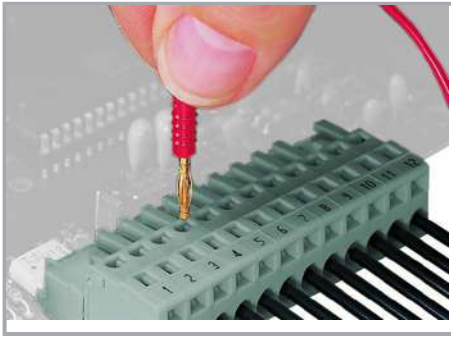


Inserting a conductor via operating tool.



Coding a female connector by removing coding finger(s).

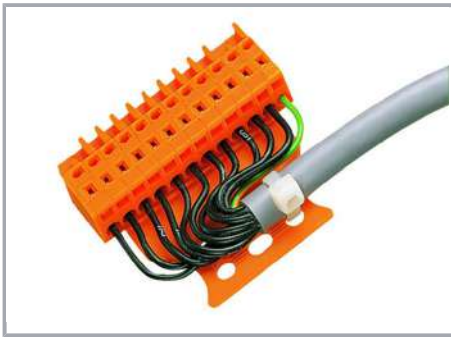
Subject to changes. Please also observe the further product documentation!



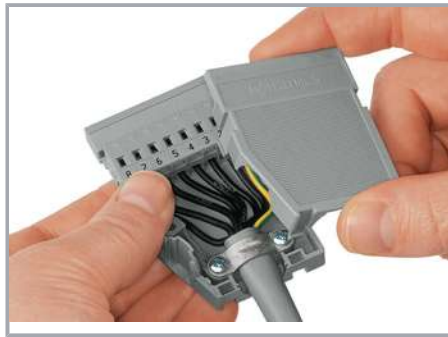
Testing – female connector with CAGE CLAMP®

Integrated test ports for testing perpendicular to conductor entry via 2 or 2.3 mm Ø test plug

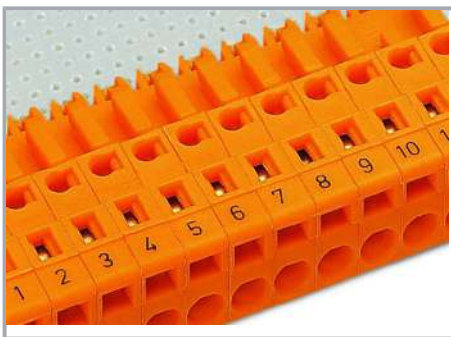
Installation



Male connector with strain relief plate



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



Labeling via direct marking or self-adhesive strips.

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Product family

MCS MIDI Classic

[Show all products from the family](#)

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