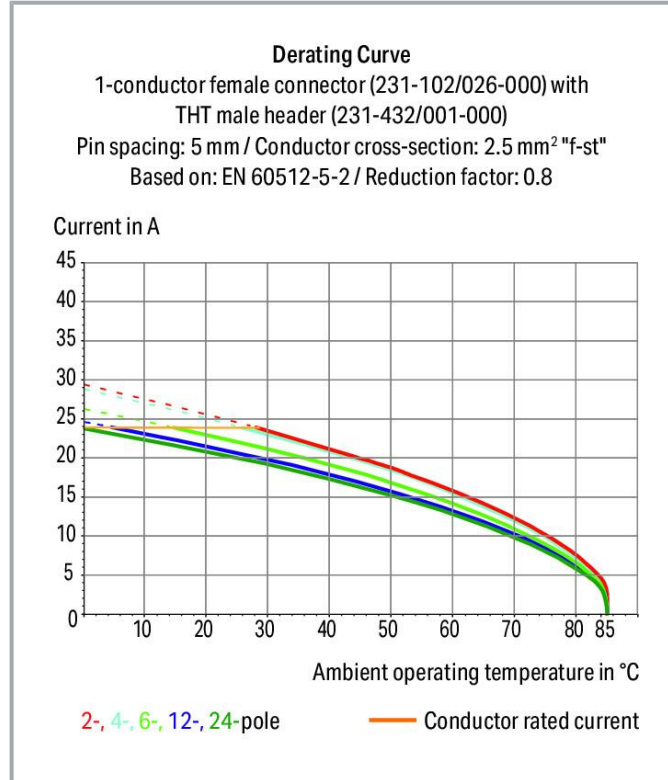


Data sheet | Item number: 231-312/008-000

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Snap-in mounting feet; 2,50 mm²; orange



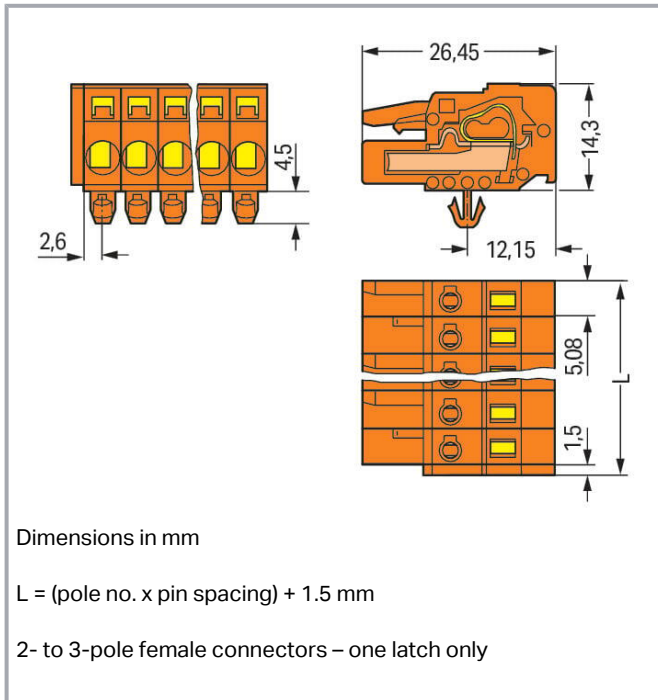
www.wago.com/231-312/008-000



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

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Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
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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
- Integrated test ports
- With coding fingers

Data

Notes

Safety information

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. 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

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

Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal 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
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

Ratings per UL 1059

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 1977

Rated voltage (UL 1977)	600 V
Rated current UL 1977	15 A

Ratings per CSA

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 points	12
Total number of potentials	12
Number of connection types	1
Number of levels	1

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

Connection 1

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Actuation direction 1	Operation parallel to conductor entry
Actuation direction 2	Operation perpendicular to conductor entry
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 inches
Pole number	12
Conductor entry direction to mating direction	0°

Physical data

Pin spacing	5.08 mm / 0.2 inches
Width	62.46 mm / 2.459 inches
Height	18.8 mm / 0.74 inches
Height from the surface	14.3 mm / 0.563 inches
Depth	26.45 mm / 1.041 inches

Mechanical Data

Variable coding	Yes
Housing sheet thickness	0.6 ... 1.2 mm / 0.024 ... 0.047 inches
Mounting type	Snap-in foot
Mounting type	Panel mounting
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No
Plugging without loss of pin spacing	No
Locking of plug-in connection	none

Material Data

Note (material data)

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



Information on material specifications can be found here

Color	orange
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
Fire load	0.32 MJ
Weight	22.2 g

Environmental requirements

Limit temperature range	-60 ... +85 °C
Processing temperature	-35 ... +60 °C

Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-03-09
eCl@ss 9.0	27-44-03-09
ETIM 8.0	EC002638
ETIM 7.0	EC002638
PU (SPU)	25 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918348362
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------




Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CB DEKRA Certification B.V.	IEC 61984	NL-39756 /A1

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



	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	71- 121453
	UL UL International Germany GmbH	UL 1977	E45171
	UR Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	Railway WAGO GmbH & Co. KG	-	Railway Ready

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA

Counterpart



Item no.231-642

1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; 2,50 mm²; orange

www.wago.com/231-642

Optional accessories

Strain relief

Strain relief housing

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

WAGO GmbH & Co. KG
 Hansastr. 27
 32423 Minden
 Phone: +49571 887-0 | Fax: +49571 887-169
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**Item no.: 232-642**

Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5.08 mm; 12-pole; orange

www.wago.com/232-642**Cover**

Cover

**Item no.: 231-669**

Lockout caps; for covering unused clamping units; orange

www.wago.com/231-669**Ferrule**

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

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

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	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 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	

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

	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; light turquoise	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		
	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
Tool		
Operating tool		
	Item no.: 209-130 Operating tool; made of insulating material; 1-way; for 264 Series (1-/2-way), 280, 281 Series (up to 3-way); natural	www.wago.com/209-130
	Item no.: 209-132 Operating tool; for connecting comb-style jumper bar; made of insulating material; 2-way; natural	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

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



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



Item no.: 280-433
Operating tool; made of insulating material; 3-way

www.wago.com/280-433

Insulation stop

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

Mounting

Mounting accessories

Item no.: 209-137

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



Mounting adapter; can be used as end stop; 6.5 mm wide; gray

www.wago.com/209-137

Testing and measuring

Testing accessories



Item no.: 210-136

Test plug; 2 mm Ø; with 500 mm cable; red

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

Mounting adapter

Mounting accessories



Item no.: 209-148

Multi mounting adapter; for female and male connectors; 25 mm wide; 3 parts; gray

www.wago.com/209-148

Marking accessories

Marking strip



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.: 210-332/508-206

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.: 210-332/508-205

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

Downloads

Documentation

Additional Information

Technical Section

2019 Apr 3

pdf

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CAD/CAE-Data

CAD data

2D/3D Models 231-312/008-000

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 231-312/008-000

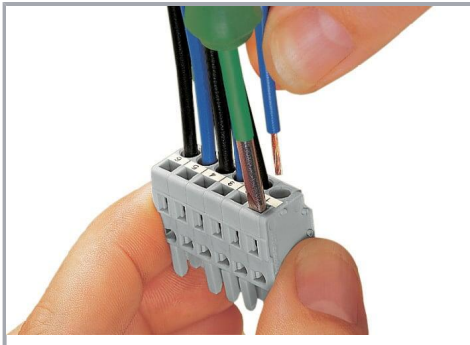
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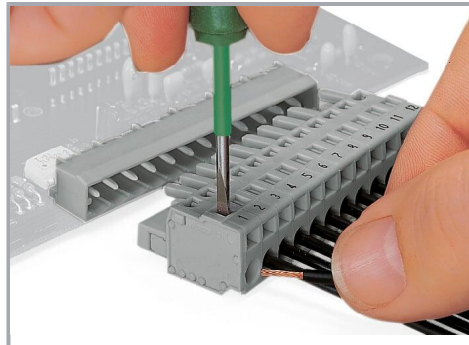
1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 12-pole; Snap-in mounting feet; 2,50 mm²; orange

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.

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

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



Inserting a conductor via operating tool.

Coding



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

Testing

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®

Marking

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



Labeling via direct marking or self-adhesive strips.

Product family

MCS MIDI Classic

[Show all products from the family](#)

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