Data sheet | Item number: 231-322/102-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5.08 mm; 22-pole; with integrated end plate; 2,50 mm²; orange



www.wago.com/231-322/102-000



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

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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 <i>MCS – MULTI CONNECTION SYSTEM</i> 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!

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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) ≙ 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	22
Total number of potentials	22
Number of connection types	1
Number of levels	1

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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 mm² / 28 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 1.5 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 2.5 mm ²
Strip length	8 9 mm / 0.31 0.35 inches
Pole number	22
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	5.08 mm / 0.2 inches
Width	111.76 mm / 4.4 inches
Height	14.3 mm / 0.563 inches
Depth	26.45 mm / 1.041 inches

Mechanical Data

Variable coding	Yes
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	Yes
Locking of plug-in connection	none

Material Data

Note (material data)

Information on material specifications can be found here

Color	orange
Material group	1

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Insulation material	Polyamide (PA66)
Flammability class per UL94	Vo
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	Tin
Fire load	0.55 MJ
Weight	39.5 g

Environmental requirements

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

Commercial data

3 (Multi Conn. System)
27-44-03-09
27-44-03-09
EC002638
EC002638
10 pcs
box
DE
4044918350334
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.	EN 61984,IEC 61984	NL-39756 /A1
	CSA DEKRA Certification B.V.	C22.2	1466354
	KEMA/KEUR	EN 61984	71-

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DEKRA Certification B.V.

91 °	UL UL International Germany GmbH	UL 1977	E45171
91	UR Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications

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

Counterpart



ltem no.231-652

1-conductor male connector; CAGE CLAMP[®]; 2.5 mm²; Pin spacing 5.08 mm; 22-pole; 2,50 mm²; www.wago.com/231-652 orange

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	Item no.231-352/001-000 THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5.08 mm; 22-pole; orange	www.wago.com/231-352/001- 000
50	Item no.231-552/001-000 THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5.08 mm; 22-pole; orange	www.wago.com/231-552/001- 000

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Optional accessories

Insulation stop

Insulation stop



ltem no.: 231-672 Insulation stop; 0.75 - 1 mm²; dark gray



Item no.: 231-670 Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"; white



Item no.: 231-671 Insulation stop; 0.25 - 0.5 mm²; light gray

Ferrule

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
	Item no.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-103
	Item no.: 216-123 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-123
	Item no.: 216-122 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-122
	Item no.: 216-124 Ferrule; Sleeve for 1.5 mm² / 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 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-132
	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	www.wago.com/216-121

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www.wago.com/231-672

www.wago.com/231-670

www.wago.com/231-671

Data sheet | Item number: 231-322/102-000

www.wago.com/231-322/102-000



 AWG 24; uninsulated; electro-tin plated; silver-colored ar 0.25 mm² / AWG 24; uninsulated; electro-tin plated; electrolytic copper; gastight DIN 46228, Part 1/08.92 ar 0.34 mm² / AWG 24; uninsulated; electro-tin plated ar 0.34 mm² / AWG 18; insulated; electro-tin plated; red 	www.wago.com/216-131 www.wago.com/216-141 www.wago.com/216-152
or 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight DIN 46228, Part 1/08.92 52 for 0.34 mm² / AWG 24; uninsulated; electro-tin plated 03 or 1 mm² / AWG 18; insulated; electro-tin plated; red	
or 0.34 mm² / AWG 24; uninsulated; electro-tin plated 03 or 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-152
or 1 mm² / AWG 18; insulated; electro-tin plated; red	
19	www.wago.com/216-203
or 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-202
or 0.25 mm² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
04 for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-204
14 for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight DIN 46228, Part 1/08.92; silver-colored	www.wago.com/216-144
01 for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-201
23 or 1 mm² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
1 or 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight DIN 46228, Part 4/09.90; white	www.wago.com/216-241
12 or 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight DIN 46228, Part 4/09.90; gray	www.wago.com/216-242
22 or 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
21 or 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
24 for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	www.wago.com/216-224
	www.wago.com/216-243

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Data sheet | Item number: 231-322/102-000

www.wago.com/231-322/102-000



		-
	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.: 216-263 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
L	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
L	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
	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
L	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; light turquoise	www.wago.com/216-322
	Item no.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	www.wago.com/216-302
Testing and n	neasuring	
Testing acc	essories	
Q	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 mm ² ; light gray	www.wago.com/231-661
ГооІ		
Operating to	ool	
	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
di d	Item no.: 231-159	www.wago.com/231-159
	Operating tool; natural	

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N/A	F	

a	Item no.: 231-131 Operating tool; made of insulating material; 1-way; loose; white	www.wago.com/231-131
R	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
Cover		
Cover		
\$ p - 14	Item no.: 231-669 Lockout caps; for covering unused clamping units; orange	www.wago.com/231-669
Jumpers		
Jumper		
CARACTER STRATE	ltem no.: 231-905 Jumper; for conductor entry; 5-way; insulated; gray	www.wago.com/231-905
A A NORTH AND	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

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S.S.

ltem no.: 231-902

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

www.wago.com/231-902

Marking acce	essories	
Marking strip		
11	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
14	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
14	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
14	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
111	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
11	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	Download
Technical explanations		2.0 MB	

CAD/CAE-Data

CAD data		
2D/3D Models 231-322/102-000	URL	Download
CAE data		
EPLAN Data Portal 231-322/102-000	URL	Download

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URL	Download
URL	Download
URL	Download
	-

Installation Notes

Application



Total pole number for female connectors

= pole number for male header

Application

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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"!

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!

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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

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Testing – female connector with CAGE CLAMP®

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

Installation



Male connector with strain relief plate



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

Marking

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Labeling via direct marking or self-adhesive strips.

Product family

MCS MIDI Classic Show all products from the family

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