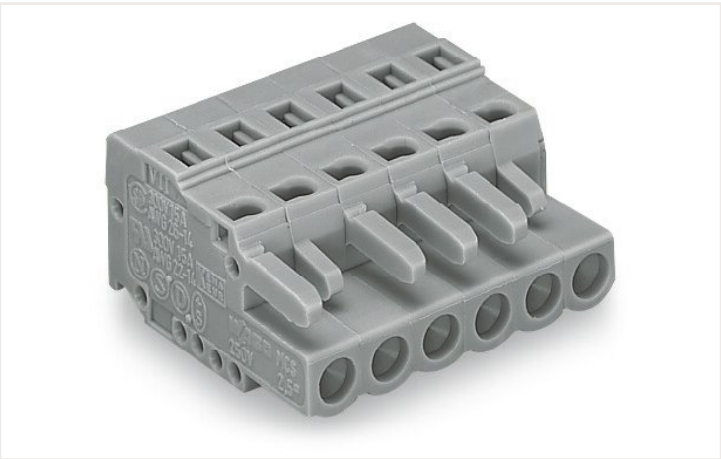


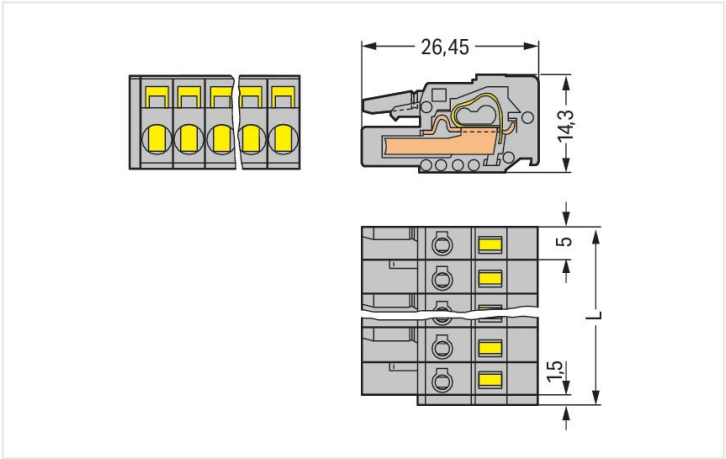
**Data sheet | Item number: 231-112/026-000**

1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; 2,50 mm²; gray

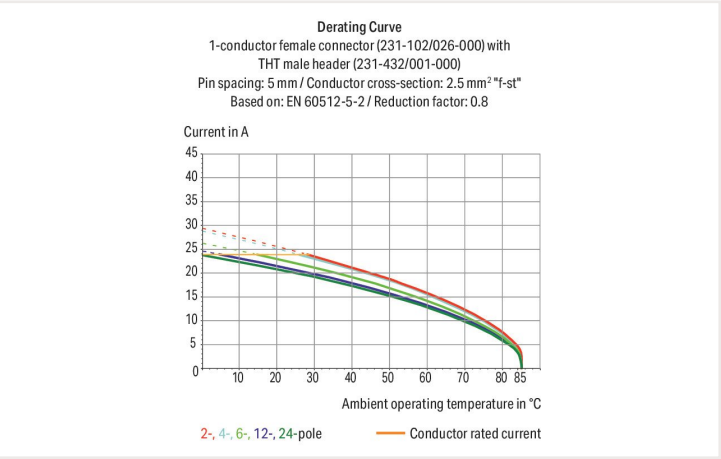
<https://www.wago.com/231-112/026-000>



Color:  gray



Dimensions in mm  
L = (pole no. x pin spacing) + 1.5 mm  
2- to 3-pole female connectors – one latch only



- 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



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. 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 <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .

Electrical data	
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	
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

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	
Total number of connection points	12
Total number of potentials	12
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 mm² / 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 mm²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Pole number	12
Conductor entry direction to mating direction	0 °

### Physical data

Pin spacing	5 mm / 0.197 inch
Width	61.5 mm / 2.421 inch
Height	14.3 mm / 0.563 inch
Depth	26.45 mm / 1.041 inch

### Mechanical data

Variable coding	Yes
-----------------	-----

### Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No
Locking of plug-in connection	none

### Material data

Note (material data)	<a href="#">Information on material data can be found here</a>
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
Fire load	0.297 MJ
Weight	21.6 g

### Environmental requirements

Limit temperature range	-60 ... +85 °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 7.0	EC002638
ETIM 6.0	EC002638
PU (SPU)	25 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4044918341370
Customs tariff number VKOrg Germany	85366990990



Approvals / Certificates

Country specific Approvals



Approval	Standard	Certificate name
CB DEKRA Certification B.V.	IEC 61984	NL-39756
CSA DEKRA Certification B.V.	C22.2	LR 18677-25
KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

Ship Approvals



Approval	Standard	Certificate name
ABS American Bureau of Ship- ping	-	19-HG1869876-PDA
BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE000016Z

UL-Approvals



Approval	Standard	Certificate name
UL Underwriters Laboratories Inc.	UL 1059	E45172
UR Underwriters Laboratories Inc.	UL 1977	E45171

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 231-112/026-000



Documentation

Additional Information
Technical Section
03.04.2019
pdf 1949.09 KB



CAD/CAE-Data

CAD data
2D/3D Models 231-112/026-000























CAE data
EPLAN Data Portal 231-112/026-000
ZUKEN Portal 231-112/026-000



1.1 Counterpart

1 Compatible products

1.1.1 Male connector/plug

 <b>Item no.: 231-612</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; 2,50 mm²; gray	 <b>Item no.: 231-612/019-000</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; clamping collar; 2,50 mm²; gray	 <b>Item no.: 231-612/019-000/035-000</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; clamping collar; Strain relief plate; 2,50 mm²; gray	 <b>Item no.: 231-612/018-000</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; DIN-35 rail/panel mounting; Snap-in mounting feet; 2,50 mm²; gray
 <b>Item no.: 231-612/114-000</b> 1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 12-pole; Snap-in flange; 2,50 mm²; gray	 <b>Item no.: 232-512/007-000</b> Double pin header; DIN-35 rail mounting; 12-pole; Pin spacing 5 mm; gray	 <b>Item no.: 231-172/003-000</b> Male connector for rail-mount terminal blocks; 1.2 x 1.2 mm pins; straight; Pin spacing 5 mm; 12-pole; gray	 <b>Item no.: 231-442/001-000/105-604/997-409</b> THR male header; 1.0 x 1.0 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 12-pole; black
 <b>Item no.: 231-442/001-000/105-604</b> THR male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 231-142/001-000/105-604/997-409</b> THR male header; 1.0 x 1.0 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 231-142/001-000/105-604</b> THR male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 231-472/001-000/105-604/997-409</b> THR male header; 1.2 x 1.2 mm solder pin; angled; in tape-and-reel packaging; Pin spacing 5 mm; 12-pole; black
 <b>Item no.: 231-472/001-000/105-604</b> THR male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 231-172/001-000/105-604/997-409</b> THR male header; 1.2 x 1.2 mm solder pin; straight; in tape-and-reel packaging; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 231-172/001-000/105-604</b> THR male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 12-pole; black	 <b>Item no.: 232-342</b> THT male header for double-deck assembly; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 12-pole; gray
 <b>Item no.: 231-442/001-000</b> THT male header; 1.0 x 1.0 mm solder pin; angled; Pin spacing 5 mm; 12-pole; gray	 <b>Item no.: 231-142/001-000</b> THT male header; 1.0 x 1.0 mm solder pin; straight; Pin spacing 5 mm; 12-pole; gray	 <b>Item no.: 231-472/001-000</b> THT male header; 1.2 x 1.2 mm solder pin; angled; Pin spacing 5 mm; 12-pole; gray	 <b>Item no.: 231-172/001-000</b> THT male header; 1.2 x 1.2 mm solder pin; straight; Pin spacing 5 mm; 12-pole; gray

1.2 Optional accessories

1.2.1 Cover









1.2.1.1 Cover



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

1.2.2 Ferrule

1.2.2.1 Ferrule

 <b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	 <b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	 <b>Item no.: 216-151</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated	 <b>Item no.: 216-131</b> Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored
 <b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	 <b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	 <b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	 <b>Item no.: 216-152</b> Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

## 1.2.2.1 Ferrule

**Item no.: 216-241**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

**Item no.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

**Item no.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

**Item no.: 216-141**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

**Item no.: 216-101**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-121**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-242**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item no.: 216-262**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item no.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

**Item no.: 216-222**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

**Item no.: 216-142**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

**Item no.: 216-102**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-122**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

**Item no.: 216-263**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

**Item no.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

**Item no.: 216-223**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

**Item no.: 216-103**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated

**Item no.: 216-143**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

**Item no.: 216-123**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

**Item no.: 216-224**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

**Item no.: 216-244**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

**Item no.: 216-264**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

**Item no.: 216-284**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

**Item no.: 216-124**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated

**Item no.: 216-144**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

**Item no.: 216-104**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; un-insulated; electro-tin plated; silver-colored

**Item no.: 216-106**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; un-insulated; electro-tin plated; silver-colored

1.2.3 Insulation stop

1.2.3.1 Insulation stop



**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



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

1.2.4 Jumper

1.2.4.1 Jumper



**Item no.: 231-910**  
Jumper; for conductor entry; 10-way; insulated; gray



**Item no.: 231-902**  
Jumper; for conductor entry; 2-way; insulated; gray



**Item no.: 231-903**  
Jumper; for conductor entry; 3-way; insulated; gray



**Item no.: 231-905**  
Jumper; for conductor entry; 5-way; insulated; gray



**Item no.: 231-907**  
Jumper; for conductor entry; 7-way; insulated; gray

1.2.5 Marking

1.2.5.1 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



**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



**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



**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



**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



**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

1.2.6 Strain relief

1.2.6.1 Strain relief housing



**Item no.: 232-612**  
Strain relief housing; gray

1.2.7 Test and measurement

1.2.7.1 Testing accessories



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



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

1.2.8 Tool

1.2.8.1 Operating tool



**Item no.: 231-231**  
Combination operating tool; red



**Item no.: 209-132**  
Operating tool; for connecting comb-style jumper bar; made of insulating material; 2-way; natural



**Item no.: 280-440**  
Operating tool; made of insulating material; 10-way



**Item no.: 209-130**  
Operating tool; made of insulating material; 1-way; for 264 Series (1-1/2-way), 280, 281 Series (up to 3-way); natural



**Item no.: 231-291**  
Operating tool; made of insulating material; 1-way; loose; red



**Item no.: 231-131**  
Operating tool; made of insulating material; 1-way; loose; white



**Item no.: 280-432**  
Operating tool; made of insulating material; 2-way; white



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



**Item no.: 280-434**  
Operating tool; made of insulating material; 4-way



**Item no.: 280-435**  
Operating tool; made of insulating material; 5-way; gray



**Item no.: 280-436**  
Operating tool; made of insulating material; 6-way



**Item no.: 280-437**  
Operating tool; made of insulating material; 7-way



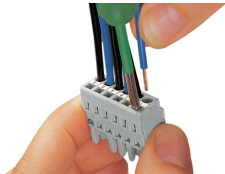
**Item no.: 280-438**  
Operating tool; made of insulating material; 8-way



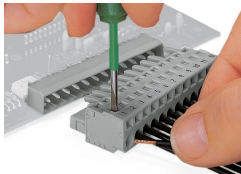
**Item no.: 231-159**  
Operating tool; natural

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 tool (231-291).



Inserting a conductor via operating tool.

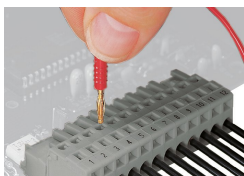
Coding



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



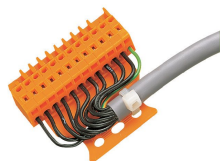
## Testing



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

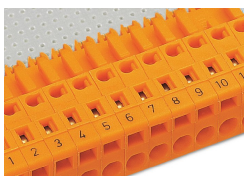


Male connector with strain relief plate



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

## Marking



Labeling via direct marking or self-adhesive strips.