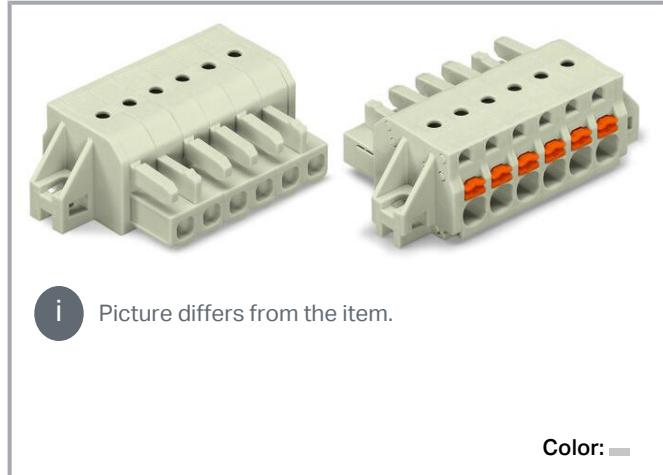


**Data sheet | Item number: 2721-109/031-000**

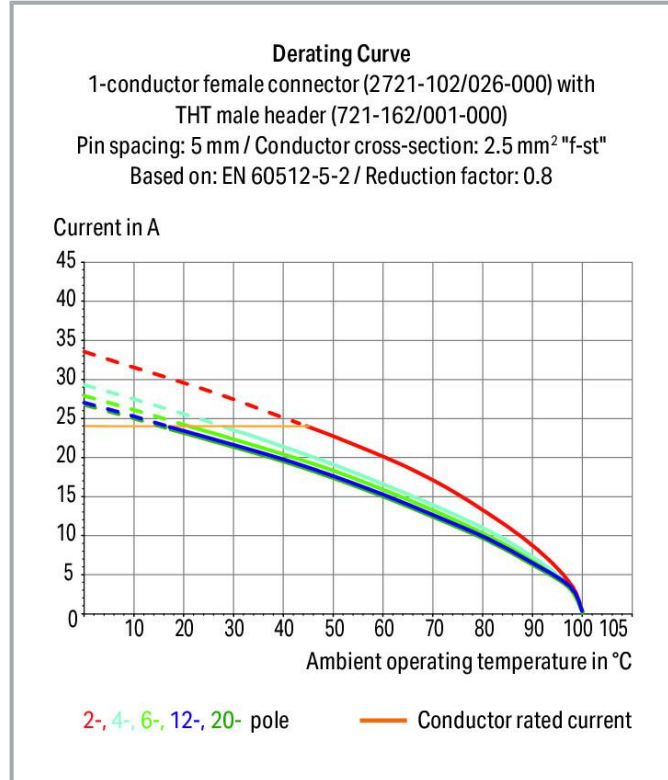
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; clamping collar; 2,50 mm<sup>2</sup>; light gray



[www.wago.com/2721-109/031-000](http://www.wago.com/2721-109/031-000)



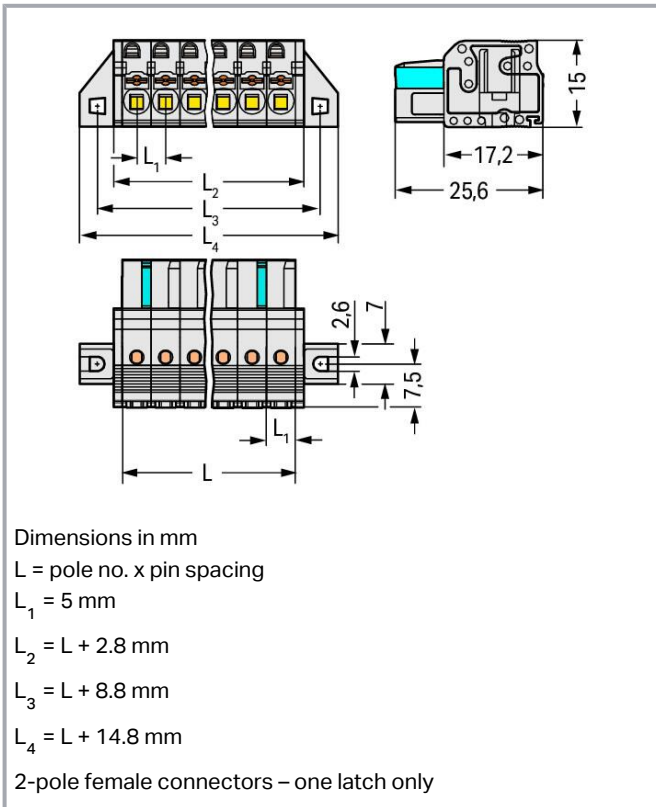
Picture differs from the item.



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

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## Item description

- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Simple, push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 100% protected against mismatching
- Coding option available

## 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

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



or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

Variants:

Other pole numbers

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

### 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

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 C)	150 V
Rated current UL (Use Group C)	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

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Rated voltage CSA (Use Group C)	300 V
Rated current CSA (Use Group C)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

### Connection data

Connection points	9
Total number of potentials	9
Number of connection types	1
Number of levels	1

### Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Actuation direction 1	Operation parallel to conductor entry
Solid conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor	0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup>
Strip length	10 ... 11 mm / 0.39 ... 0.43 inches
Pole number	9
Conductor entry direction to mating direction	0°

### Physical data

Pin spacing	5 mm / 0.197 inches
Width	59.8 mm / 2.354 inches
Height	15 mm / 0.591 inches
Depth	25.6 mm / 1.008 inches

### Mechanical Data

Variable coding	Yes
Mounting type	Mounting flange
Mounting type	Feed-through mounting Panel mounting
Anti-rotation protection	Yes

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



## Plug-in connection

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

## Material data

Note (material data)	Information on material specifications can be found here
Color	light 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	0.318 MJ
Weight	15 g

## Environmental requirements

Limit temperature range	-60 ... +100 °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
ECCN	NO DATA
PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4045454793630
Customs tariff number	85366990990

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

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## 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
	CSA DEKRA Certification B.V.	C22.2 No. 158	2314554
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
	UL Underwriters Laboratories Inc.	UL 1977	E45171
	UL Underwriters Laboratories Inc.	UL 1059	E45172

## Counterpart



### Item no.721-609

1-conductor male connector; CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; 2,50 mm<sup>2</sup>; light gray

[www.wago.com/721-609](http://www.wago.com/721-609)



### Item no.721-439/001-000

THT male header; 1.0 x 1.0 mm solder pin; angled; 100% protected against mismatching; Pin spacing 5 mm; 9-pole; light gray

[www.wago.com/721-439/001-000](http://www.wago.com/721-439/001-000)



### Item no.721-139/001-000

THT male header; 1.0 x 1.0 mm solder pin; straight; 100% protected against mismatching; Pin spacing 5 mm; 9-pole; light gray

[www.wago.com/721-139/001-000](http://www.wago.com/721-139/001-000)

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

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## Optional accessories

### Testing and measuring

#### Testing accessories



**Item no.: 210-136**

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

[www.wago.com/210-136](http://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<sup>2</sup>; light gray

[www.wago.com/231-661](http://www.wago.com/231-661)

### Ferrule

#### Ferrule

	<b>Item no.: 216-101</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-101">www.wago.com/216-101</a>
	<b>Item no.: 216-104</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-104">www.wago.com/216-104</a>
	<b>Item no.: 216-106</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-106">www.wago.com/216-106</a>
	<b>Item no.: 216-102</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-102">www.wago.com/216-102</a>
	<b>Item no.: 216-103</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-103">www.wago.com/216-103</a>
	<b>Item no.: 216-123</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-123">www.wago.com/216-123</a>
	<b>Item no.: 216-122</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-122">www.wago.com/216-122</a>
	<b>Item no.: 216-124</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-124">www.wago.com/216-124</a>
	<b>Item no.: 216-142</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-142">www.wago.com/216-142</a>
	<b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-132">www.wago.com/216-132</a>
	<b>Item no.: 216-121</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-121">www.wago.com/216-121</a>
	<b>Item no.: 216-143</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-143">www.wago.com/216-143</a>
	<b>Item no.: 216-131</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-131">www.wago.com/216-131</a>

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	<b>Item no.: 216-141</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-141">www.wago.com/216-141</a>
	<b>Item no.: 216-152</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-152">www.wago.com/216-152</a>
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
	<b>Item no.: 216-151</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-151">www.wago.com/216-151</a>
	<b>Item no.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
	<b>Item no.: 216-144</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored	<a href="http://www.wago.com/216-144">www.wago.com/216-144</a>
	<b>Item no.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Item no.: 216-241</b> 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	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Item no.: 216-242</b> 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	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Item no.: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Item no.: 216-224</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-224">www.wago.com/216-224</a>
	<b>Item no.: 216-243</b> 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	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Item no.: 216-244</b> 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	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<b>Item no.: 216-263</b> 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	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>



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



	<p><b>Item no.: 216-264</b>                  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</p>	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>
	<p><b>Item no.: 216-262</b>                  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</p>	<a href="http://www.wago.com/216-262">www.wago.com/216-262</a>
	<p><b>Item no.: 216-301</b>                  Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<p><b>Item no.: 216-321</b>                  Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow</p>	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<p><b>Item no.: 216-322</b>                  Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>
	<p><b>Item no.: 216-302</b>                  Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>

**Tool**

Operating tool

	<p><b>Item no.: 231-159</b>                  Operating tool; natural</p>	<a href="http://www.wago.com/231-159">www.wago.com/231-159</a>
	<p><b>Item no.: 210-250</b>                  Operating tool; for MCS MINI and MIDI with CAGE CLAMP® connection; red</p>	<a href="http://www.wago.com/210-250">www.wago.com/210-250</a>
	<p><b>Item no.: 231-231</b>                  Combination operating tool; red</p>	<a href="http://www.wago.com/231-231">www.wago.com/231-231</a>
	<p><b>Item no.: 210-657</b>                  Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured</p>	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
	<p><b>Item no.: 210-720</b>                  Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured</p>	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
	<p><b>Item no.: 231-131</b>                  Operating tool; made of insulating material; 1-way; loose; white</p>	<a href="http://www.wago.com/231-131">www.wago.com/231-131</a>
	<p><b>Item no.: 231-291</b>                  Operating tool; made of insulating material; 1-way; loose; red</p>	<a href="http://www.wago.com/231-291">www.wago.com/231-291</a>

**Strain relief**

Strain relief plate

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



**Item no.:** 734-126

Strain relief plate; for female and male connectors; 35 mm wide; 1 part; Pin spacing 3.5 mm; light gray

[www.wago.com/734-126](http://www.wago.com/734-126)

### Insulation stop

Insulation stop



**Item no.:** 231-672

Insulation stop; 0.75 - 1 mm<sup>2</sup>; dark gray

[www.wago.com/231-672](http://www.wago.com/231-672)



**Item no.:** 231-671

Insulation stop; 0.25 - 0.5 mm<sup>2</sup>; light gray

[www.wago.com/231-671](http://www.wago.com/231-671)

### Marking accessories

Marking strip



**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](http://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](http://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](http://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](http://www.wago.com/210-332/500-204)

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.1 MB	

## CAD/CAE-Data

### CAD data

2D/3D Models 2721-109/031-000	URL	Download
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### CAE data

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

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ZUKEN Portal 2721-109/031-000

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### Asset Administration Shell

Asset Administration Shell 2721-109/031-000

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2721-109/031-000

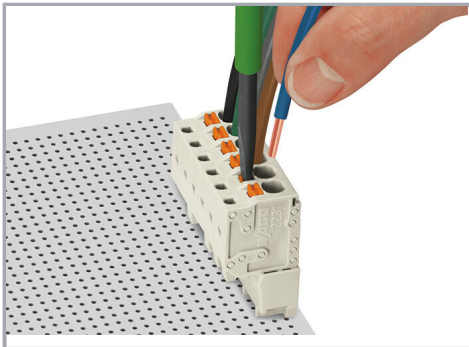
[URL](#)

[Download](#)

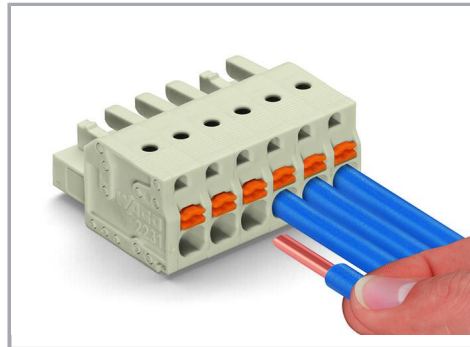
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 9-pole; 100% protected against mismating; clamping collar; 2,50 mm<sup>2</sup>; light gray

## Installation Notes

### Conductor termination



Inserting/removing a conductor via 3.5 mm screwdriver – Push-in CAGE CLAMP® actuation in mated condition.



Push-in termination of solid conductors or fine-stranded conductors with ferrule

### Testing

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

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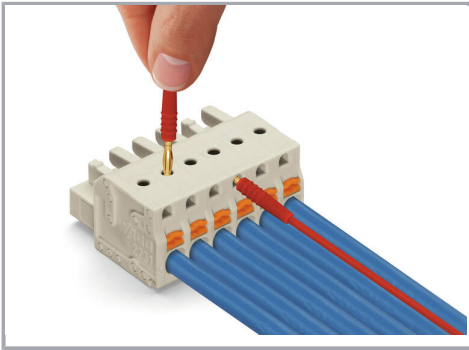
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Testing parallel to conductor entry via integrated test ports – female connector with push-buttons and Push-in CAGE CLAMP® connection – touch contact perpendicular to conductor entry.

### Marking



Labeling via direct marking or self-adhesive strips.

### Coding



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

### Installation

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



Male connector with strain relief plate



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

## Product family

MCS MIDI

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