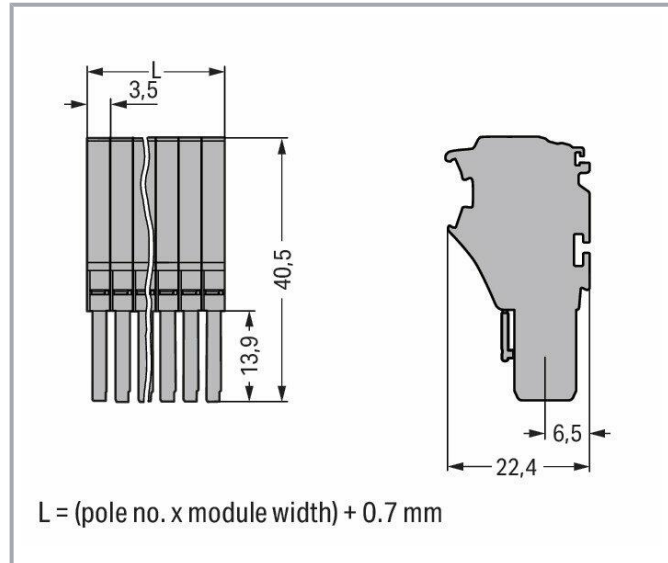
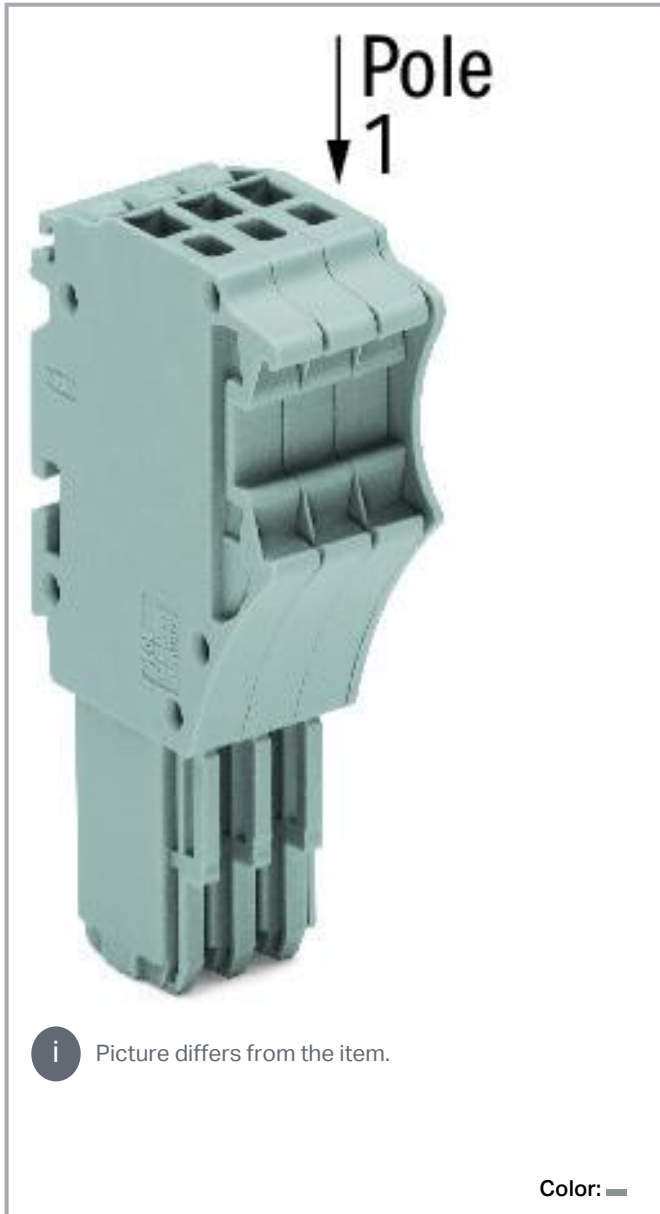


Data sheet | Item number: 2020-109

1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 9-pole; 1,50 mm<sup>2</sup>; gray

[www.wago.com/2020-109](http://www.wago.com/2020-109)



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

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## Data

### Notes

Safety information

According to EN 61984, pluggable connectors without current interrupting capacity must not be mated or unmated when live or under load.

Safety information 2

Notice: An appropriate end plate must be applied to the carrier terminal blocks after each female plug.

## Electrical data

### Ratings per IEC/EN

Ratings per	IEC/EN 61984
Nominal voltage (III/3)	500 V
Rated impulse voltage (III/3)	6 kV
Rated current	13.5 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

### 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)	300 V
Rated current UL (Use Group C)	15 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	15 A

### Ratings per CSA

Approvals per	CSA 22.2 No 158
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	10 A
Rated voltage CSA (Use Group C)	300 V
Rated current CSA (Use Group C)	10 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

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## Connection data

Connection points	9
Total number of potentials	9

## Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Connectable conductor materials	Copper
Nominal cross-section	1 mm <sup>2</sup>
Solid conductor	0.14 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG
Solid conductor; push-in termination	0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor	0.14 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.14 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.5 ... 0.75 mm <sup>2</sup> / 20 ... 18 AWG
Note (conductor cross-section)	Depending on the conductor characteristic, a conductor with a smaller cross-section can also be inserted via push-in termination.
Strip length	9 ... 11 mm / 0.35 ... 0.43 inches
Pole number	9
Wiring direction	Front-entry wiring

## Physical data

Width	32.2 mm / 1.268 inches
Height	40.5 mm / 1.594 inches
Depth	22.4 mm / 0.882 inches
Module width	3.5 mm / 0.138 inches

## Mechanical Data

Variable coding	Yes
Marking level	Side marking
Anti-rotation protection	Yes

## Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	No

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



Plugging without loss of pin spacing

No

## Material data

Note (material data)

Information on material specifications can be found here

Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.364 MJ
Weight	20.5 g

## Environmental requirements

Processing temperature	-35 ... +85 °C
Continuous operating temperature	-60 ... +105 °C

## Commercial data

Product Group	18 (X-COM-System)
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 8.0	EC001284
ETIM 7.0	EC001284
ECCN	NO DATA
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454853600
Customs tariff number	85366990990

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates




### General approvals

Logo	Approval	Additional Approval Text	Certificate name
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	CCA DEKRA Certification B.V.	EN 60947	NTR NL 7617
	CSA DEKRA Certification B.V.	C22.2	2516073
	UL UL International Germany GmbH	UL 1059	E 45172

## Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	BV Bureau Veritas S.A.	EN 60947	38586/BO BV
	LR Lloyds Register	EN 60947	91/20112 (E9)











## Optional accessories

## Ferrule

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Ferrule		
	<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.: 216-243</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>
Screwless end stop		
Mounting accessories		
	<b>Item no.: 249-117</b> Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray	<a href="http://www.wago.com/249-117">www.wago.com/249-117</a>
Strain relief		
Strain relief plate		
	<b>Item no.: 734-329</b> Strain relief plate; for female and male connectors; 25 mm wide; 1 part; gray	<a href="http://www.wago.com/734-329">www.wago.com/734-329</a>
Locking levers		
Locking system		
	<b>Item no.: 2022-151</b> Locking lever; gray	<a href="http://www.wago.com/2022-151">www.wago.com/2022-151</a>
	<b>Item no.: 2022-152</b> Locking lever; orange	<a href="http://www.wago.com/2022-152">www.wago.com/2022-152</a>
Marking accessories		
Marking strip		
	<b>Item no.: 2009-110</b> Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/2009-110">www.wago.com/2009-110</a>
	<b>Item no.: 210-831</b> Marking strips; on reel; 2.3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-831">www.wago.com/210-831</a>
	<b>Item no.: 210-833</b> Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-833">www.wago.com/210-833</a>
	<b>Item no.: 210-834</b> Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-834">www.wago.com/210-834</a>

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



**Item no.: 210-832**  
Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white

[www.wago.com/210-832](http://www.wago.com/210-832)

Marker



**Item no.: 2009-113**  
WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white

[www.wago.com/2009-113](http://www.wago.com/2009-113)



**Item no.: 793-3501**  
WMB marking card; as card; plain; snap-on type; white

[www.wago.com/793-3501](http://www.wago.com/793-3501)

Tool

Operating tool



**Item no.: 210-648**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short

[www.wago.com/210-648](http://www.wago.com/210-648)



**Item no.: 210-647**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-647](http://www.wago.com/210-647)



**Item no.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

[www.wago.com/210-719](http://www.wago.com/210-719)

Protective warning marker

Cover



**Item no.: 2000-115**  
Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow

[www.wago.com/2000-115](http://www.wago.com/2000-115)

Downloads

Documentation

Bid Text

2020-109 X81 - Datei	2019 Feb 19	xml 4.0 kB	Download
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2020-109 docx - Datei	2018 Aug 6	docx 15.4 kB	Download
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Additional Information

		pdf 2.3 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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### CAE data

WSCAD Universe 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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ZUKEN Portal 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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EPLAN Data Portal 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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### Asset Administration Shell

Asset Administration Shell 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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## Environmental Product Compliance

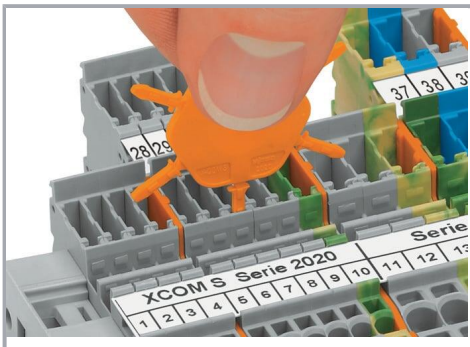
### Compliance Search

Environmental Product Compliance 2020-109	<a href="#">URL</a>	<a href="#">Download</a>
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1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm;  
9-pole; 1,50 mm<sup>2</sup>; gray

## Installation Notes

### Coding



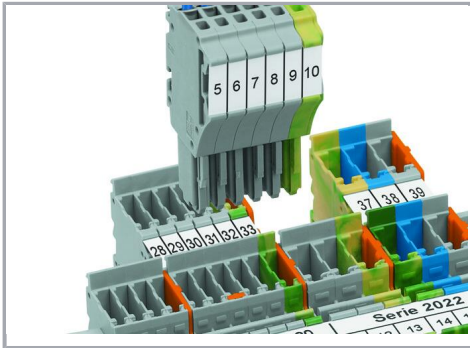
Insert coding pin into the corresponding slot and twist it off.



Coding a female plug: remove coding finger using a suitable tool.

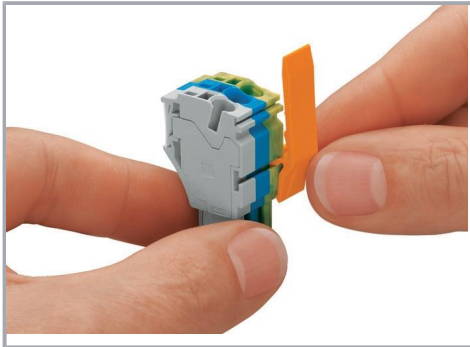
Subject to changes. Please also observe the further product documentation!



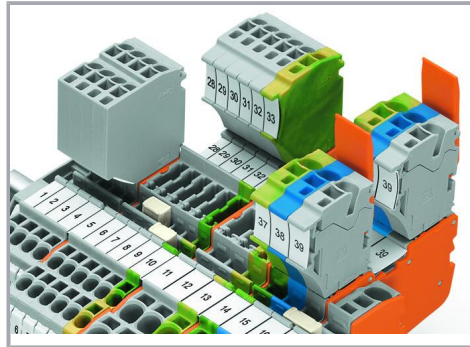


Insert coded female plug into X-COM®S-SYSTEM terminal block assembly.

### Locking system



Slide the locking lever into position.



Female plugs can be individually locked.

### Product family

**X-COM S-Mini**

[Show all products from the family](#)

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