

**Data sheet | Item number: 2020-161**

Start module for 1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 1-pole; with integrated end plate; 1,50 mm²; gray

[www.wago.com/2020-161](http://www.wago.com/2020-161)



**Item description**

**Customizing Modular Female Plugs**

WAGO's modular X-COM®S-SYSTEM female plugs can be customized for applications that require a varying number of poles (e.g., when designing prototypes).

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

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### Modules and Pole Numbers

A customized X-COM®S-SYSTEM MINI

female plug consists of:

- One base module with an end plate
- Up to 14 end modules

### Intended Use

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

### Assembly

The appropriate mounting tool shall be used to ensure that the individual modules are properly attached to each other without damaging the locking latches.

### 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

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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

### Connection data

Connection points	1
Total number of potentials	1

### 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	1
Wiring direction	Front-entry wiring

### Physical data

Width	3.5 mm / 0.138 inches
Height	40.5 mm / 1.594 inches
Depth	22.4 mm / 0.882 inches

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## 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
Mismatching protection	No
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	0.052 MJ
Weight	2.7 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
PU (SPU)	250 pcs
Packaging type	Box
Country of origin	CN
GTIN	4050821245131

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



Customs tariff number

85366990990

## Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

## Approvals / Certificates

### General approvals

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

### Declarations of conformity and manufacturer's declarations

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

### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	EN 60947	20- HG1941090- PDA
	<b>BV</b> Bureau Veritas S.A.	EN 60947	38586/B0 BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001V2
	<b>LR</b> Lloyds Register	EN 60947	91/20112 (E9)

## Optional accessories

### Marking accessories

Marking strip

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

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<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>
<b>Item no.: 210-832</b> Marking strips; on reel; 3 mm wide; plain; Self-adhesive; white	<a href="http://www.wago.com/210-832">www.wago.com/210-832</a>
<b>Marker</b>	
<b>Item no.: 2009-113</b> WMB-Inline; for Smart Printer; 2300 pieces on roll; plain; snap-on type; white	<a href="http://www.wago.com/2009-113">www.wago.com/2009-113</a>
<b>Item no.: 793-3501</b> WMB marking card; as card; plain; snap-on type; white	<a href="http://www.wago.com/793-3501">www.wago.com/793-3501</a>
<b>Ferrule</b>	
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>
<b>Protective warning marker</b>	
Cover	
<b>Item no.: 2000-115</b> Protective warning marker; for 5 terminal blocks; with high-voltage symbol, black; yellow	<a href="http://www.wago.com/2000-115">www.wago.com/2000-115</a>
<b>Strain relief</b>	
Strain relief plate	
<b>Item no.: 734-326</b> Strain relief plate; for female and male connectors; 35 mm wide; 1 part; gray	<a href="http://www.wago.com/734-326">www.wago.com/734-326</a>
<b>Item no.: 734-327</b> Strain relief plate; for female and male connectors; 6 mm wide; 1 part; gray	<a href="http://www.wago.com/734-327">www.wago.com/734-327</a>
<b>Item no.: 734-328</b> Strain relief plate; for female and male connectors; 12.5 mm wide; 1 part; gray	<a href="http://www.wago.com/734-328">www.wago.com/734-328</a>
<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>

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



## Tool

Operating tool		
<b>Item no.: 210-648</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; angled; short		<a href="http://www.wago.com/210-648">www.wago.com/210-648</a>
<b>Item no.: 210-647</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured		<a href="http://www.wago.com/210-647">www.wago.com/210-647</a>
<b>Item no.: 210-719</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft		<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>

## Locking levers

Locking system		
<b>Item no.: 2022-141</b> Locking lever; gray		<a href="http://www.wago.com/2022-141">www.wago.com/2022-141</a>
<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.: 2022-142</b> Locking lever; orange		<a href="http://www.wago.com/2022-142">www.wago.com/2022-142</a>
<b>Item no.: 2022-152</b> Locking lever; orange		<a href="http://www.wago.com/2022-152">www.wago.com/2022-152</a>

## Downloads

### Documentation

#### Bid Text

2020-161 X81 - Datei	2019 年2月19 日	xml 4.3 kB	Download
2020-161 docx - Datei	2018 年8月6 日	docx 15.9 kB	Download

#### Additional Information

		pdf 2.3 MB	Download
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## CAD/CAE-Data

### CAD data

2D/3D Models 2020-161		URL	Download
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### CAE data

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EPLAN Data Portal 2020-161	<a href="#">URL</a>	<a href="#">Download</a>
WSCAD Universe 2020-161	<a href="#">URL</a>	<a href="#">Download</a>
ZUKEN Portal 2020-161	<a href="#">URL</a>	<a href="#">Download</a>

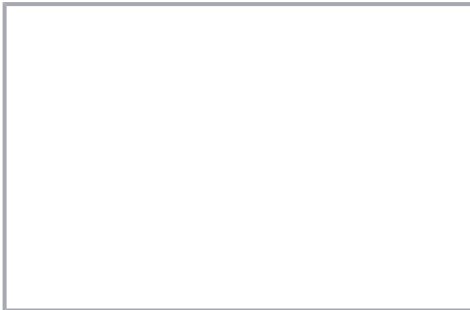
## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2020-161	<a href="#">URL</a>	<a href="#">Download</a>
Start module for 1-conductor female connector; Push-in CAGE CLAMP®; 1.5 mm <sup>2</sup> ; Pin spacing 3.5 mm; 1-pole; with integrated end plate; 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.

### Product family

**X-COM S-Mini**

[Show all products from the family](#)

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