

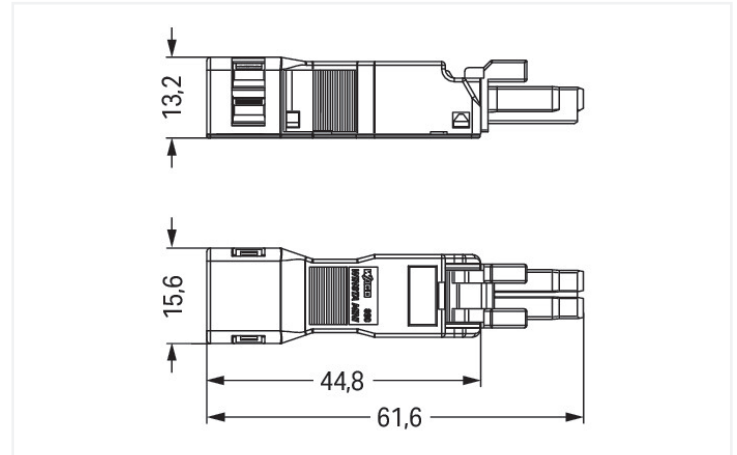
## Data Sheet | Item Number: 890-102

Socket; with strain relief housing; 2-pole; Cod. A; 1,50 mm<sup>2</sup>; black

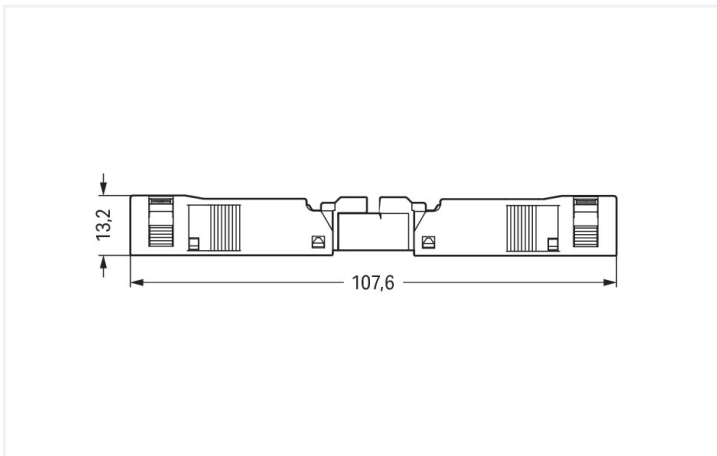
<https://www.wago.com/890-102>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

### Female connector/socket WINSTA® MINI 2-pole

The WINSTA® MINI female connector/socket with protection against mismating provides the foundation for installation of fine-stranded and solid conductors. The pluggable installation connectors with spring pressure connection technology function completely without screw connections. They allow flexible, error-free installation in numerous possible uses. The coding options reduce installation errors, allowing fast, maintenance-free wiring of all components. The pluggable installation connector is protected in accordance with protection type IP40. Users' hands and tools will never come into contact with live elements. The WINSTA® MINI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. Thanks to its particularly minimal dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is very suitable in very tight spaces, i.e., for installations when very little room is available. The strip length is 32 mm.

WINSTA® MINI solutions for your electrical installation – protected against mismating and maintenance-free

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismating from WAGO.

- pluggable installation connectors with protection against mismating
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- with A coding for use in a large number of general mains applications
- ready to install and use immediately
- convenient installation and commissioning



This item includes:



<a href="#">Item No.: 890-202</a>	1	<a href="#">Item No.: 890-502</a>	1
Socket; 2-pole; Cod. A; 1,50 mm <sup>2</sup> ; black		Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 ... 8.2 mm; 30 mm; black	

Electrical data

Ratings per				IEC/EN 60664-1		Approvals per		UL 1977	
Overvoltage category	III	III	II			Rated voltage		600 V	
Pollution degree	3	2	2			Rated current		14 A	
Nominal voltage	250 V	-	-						
Rated surge voltage	4 kV	-	-						
Rated current	16 A	-	-						

General information	
Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/ socket

Connection data

Clamping units	2	<b>Connection 1</b>	
Total number of potentials	2	Connection technology	Push-in CAGE CLAMP®
		Actuation type	Operating tool Push-in
		Nominal cross-section	1.5 mm <sup>2</sup> / 16 AWG
		Solid conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG
		Solid conductor; push-in termination	0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
		Stranded conductor	0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG
		Fine-stranded conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG
		Fine-stranded conductor; with ferrule; push-in termination	0.75 mm <sup>2</sup> / 20 AWG
		Strip length	9 mm / 0.35 inches
		Pole number	2
		Connectable sheathed cable diameter	3.8 ... 8.2 mm
		Conductor entry direction to mating direction	0 °
		Strip length (outer insulation)	32 mm

## Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	15.6 mm / 0.614 inches
Height	13.2 mm / 0.52 inches
Depth	61.6 mm / 2.425 inches

## Mechanical data

Use	General mains applications
Coding	A
Variable coding	No
Marking	L N
Potential marking	L N
Mating force of a plug-in connection	approx. 20 ... 70 N (depending on pole number)
Retention force of a plug-in connection	Locked: > 80 N
Unmating force of a plug-in connection	Unlocked: approx. 20 ... 70 N (depending on pole number)
Number of mating cycles	200, without resistive load
Protection type	IP40

## Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	Yes
Note on mismating protection	All WINSTA® components are 100% protected against mismating when: a.) plugging different numbers of poles b.) plugging while rotated 180 c.) plugging while laterally staggered d.) plugging one pole
Locking lever	Can be retrofitted
Locking of plug-in connection	Locking lever
Note on locking system	All connectors for mounted installations (snap-in versions for lighting fixtures or devices, all types of PCB and distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for flying leads (plug/socket).
Strain relief	Strain relief housing

## Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	black
Cover color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper or copper alloy; surface-treated
Contact Plating	Tin
Fire load	0.19 MJ
Connector color	black
Strain relief color	black
Weight	5.7 g





Environmental requirements	
Processing temperature	-5 ... +40 °C
Continuous operating temperature	-35 ... +85 °C
Note on continuous operating temperature	Insulating parts for temperatures ≤ 105 °C

Commercial data	
Product Group	20 (Winsta)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454231729
Customs tariff number	85366990990




Product Classification	
UNSPSC	39121402
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 8.0	EC002560
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations									
 											
Approval	Standard	Certificate Name									
CCA DEKRA Certification B.V.	EN 61535	71-123231									
CCA DEKRA Certification B.V.	IEC 61535	NL-85020									
cURus Underwriters Laboratories Inc.	UL 1977	E45171									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor- mity WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
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UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									

Approvals for marine applications

  		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	Steel Vessel Rules	19-HG1869855-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	08/20047 (E2)



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-102

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Documentation				
Bid Text				
890-102	08.06.2015	doc	23.00 KB	Download icon
890-102	19.02.2019	xml	3.03 KB	Download icon

CAD/CAE-Data

CAD data

2D/3D Models 890-102

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EPLAN Data Portal 890-102

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WSCAD Universe 890-102

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ZUKEN Portal 890-102

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1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly




**Item No.: 891-8992/205-101**  
pre-assembled connecting cable; Eca; Plug/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.0 mm²; 1 m; 1,00 mm²; black




**Item No.: 891-8992/005-101**  
pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.0 mm²; 1 m; 1,00 mm²; black


1.1.2 Distribution connector




**Item No.: 890-1634**  
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black



**Item No.: 890-1636**  
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black



**Item No.: 890-1606**  
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



**Item No.: 890-1615**  
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black



1.1.3 Male connector/plug



**Item No.: 890-812/011-000**  
Plug for PCBs; angled; 2-pole; Cod. A; black

**Item No.: 890-812**  
Plug for PCBs; straight; 2-pole; Cod. A; black

**Item No.: 890-212**  
Plug; 2-pole; Cod. A; 1,50 mm²; black

**Item No.: 890-112**  
Plug; with strain relief housing; 2-pole; 1,50 mm²; black



**Item No.: 890-212/342-000**  
Plug; with strain relief housing; 2-pole; Cod. A; 1,50 mm²; black

**Item No.: 890-712**  
Snap-in plug; 2-pole; Cod. A; 1,50 mm²; black

1.2 Required Accessories

1.2.1 Locking system

1.2.1.1 Locking system



**Item No.: 890-111**  
Locking lever; for flying leads; for tool operation; black

**Item No.: 890-131**  
Locking lever; for flying leads; for tool operation; white

**Item No.: 890-101**  
Locking lever; for manual operation; black

**Item No.: 890-121**  
Locking lever; for manual operation; white

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 Cover



**Item No.: 897-2001**  
Protective cap; Type1; for sockets and plugs; PVC; red

1.3.2 Installation

1.3.2.1 Mounting accessories



**Item No.: 890-310**  
Mounting carrier; 2- to 5-pole; for flying leads; black

**Item No.: 890-311**  
Mounting carrier; 2- to 5-pole; for flying leads; white

1.3.3 Tool

1.3.3.1 Operating tool

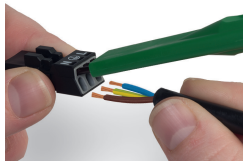
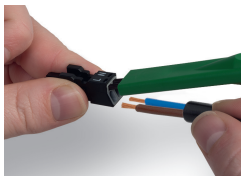
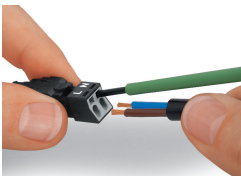


**Item No.: 890-382**  
Operating tool; 2-way; green

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

Installation Notes

Conductor termination



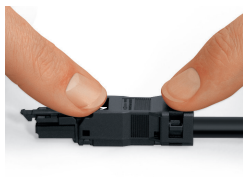
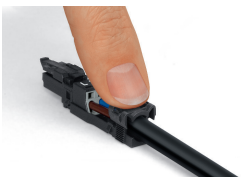
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

To terminate fine-stranded conductors, open the clamping unit via screwdriver – 2.5 mm blade width – and insert a stripped conductor until it hits the backstop. Terminate solid conductors by simply pushing them in.

To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop. Terminate solid conductors by simply pushing them in.

To terminate fine-stranded conductors, open clamping units via operating tool (890-383) and insert stripped conductors until they hit backstop. Terminate solid conductors by simply pushing them in.

Installation



Latch the wired connector into the base of the strain relief housing.

Push down strain relief clamp by hand.

Push down strain relief clamp with 2.5 mm screwdriver alternately on both sides.

Latch the top of the strain relief housing.



The printed marking of the connector is clearly visible in the openings of the strain relief housing.