

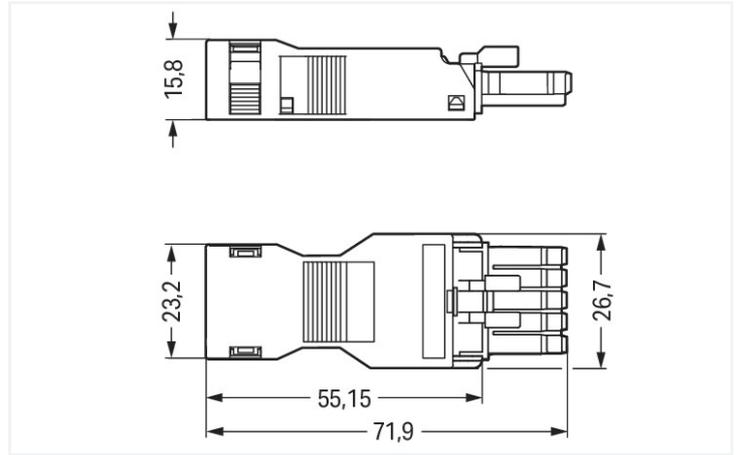
## Data Sheet | Item Number: 890-105

Socket; with strain relief housing; 5-pole; Cod. A; 1,50 mm<sup>2</sup>; black

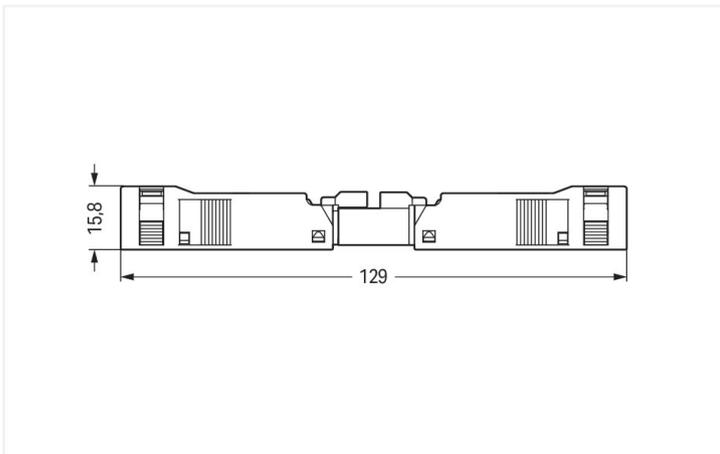
<https://www.wago.com/890-105>



Color: ■ black



Dimensions in mm



Dimensions in mm  
Overall length when mated

### Female connector/socket WINSTA® MINI with protection type IP40

For signal and power transmission: The WINSTA® MINI female connector/socket rated current 13 A. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to an enormous variety of requirements in next to no time. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismatching. The pluggable installation connector offers protection against contact with wires or tools if they are smaller than 1 mm in accordance with protection type IP40. Thanks to the color coding and mechanical A coding of WINSTA® MINI pluggable installation connectors, you can clearly distinguish different circuits. Thanks to its particularly small dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is very suitable in very restricted spaces, i.e., for connections when very little room is available. The strip length is 45 mm.

Push-in CAGE CLAMP® spring pressure connection technology – pluggable installation instead of laborious screw connections!

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and consequently more efficient, even more reliable, and error-free. Using this pre-assembled system reduces assembly times and installation errors at the construction site. Choose quality and durability – with protection against mismatching from WAGO makes the electrical installation of electrical components noticeably easier.

- effective protection against mismatching
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- with A coding for a large number of applications
- ready to install and use immediately

- rapid, structured electrical installation

**This item includes:**



Item No.: 890-205

1

Socket; 5-pole; Cod. A; 1,50 mm<sup>2</sup>; black

Item No.: 890-505

1

Strain relief housing; 5-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black

**Notes**

General safety information

**NOTICE: Observe installation and safety instructions!**

- Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden!
- Nicht unter Spannung/Last installieren!
- Nur für bestimmungsgemäßen Gebrauch einsetzen!
- Nationale Vorschriften/Normen/Richtlinien beachten!
- Technische Daten der Produkte beachten!
- Auf die richtige Polbelegung achten!
- Keine beschädigten/verschmutzten Komponenten verwenden!
- Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!
- Leiter bis zum Anschlag einführen!
- Nur mit Verriegelungsklinke und Zugentlastung verwenden!
- Originalzubehör verwenden!

**To be sold only with installation instructions!**

**Electrical data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	13 A	-	-

Approvals per	UL 1977
Rated voltage	600 V
Rated current	12 A

**General information**

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/ socket
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**Connection Data**

Clamping units	5
Total number of potentials	5

Connection 1	
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	5

### Connection 1

Connectable sheathed cable diameter	6.5 ... 10.5 mm
Conductor entry direction to mating direction	0°
Strip length (outer insulation)	45 mm

### Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	26.7 mm / 1.051 inches
Height	15.8 mm / 0.622 inches
Depth	71.9 mm / 2.831 inches

### Mechanical data

Use	General mains applications
Coding	A
Variable coding	No
Marking	N ⊕ 1 2 3
Potential marking	N ⊕ 1 2 3
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	0.299 MJ
Connector color	black
Strain relief color	black
Weight	11.9 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	4045454232870
Customs tariff number	85366990990

### Product Classification

UNSPSC	39121421
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

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

#### General approvals



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

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
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	24-0095973-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	LR23317167TA
PRS Polski Rejestr Statków	-	TE/1096/880590/23

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 890-105



## Documentation

### Bid Text

890-105	19.02.2019	xml 3.01 KB	
890-105	08.06.2015	doc 23.50 KB	

## CAD/CAE-Data

### CAD data

2D/3D Models 890-105



### CAE data

WSCAD Universe 890-105



ZUKEN Portal 890-105



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Cable assembly



#### Item No.: 891-8995/206-101

pre-assembled connecting cable; Eca; Plug/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; black

#### Item No.: 891-8995/006-101

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; black

#### 1.1.2 Distribution connector



#### Item No.: 890-929

h-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black



#### Item No.: 890-930

h-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black



#### Item No.: 890-621

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



#### Item No.: 890-622

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

#### 1.1.3 Male connector/plug



#### Item No.: 890-815/011-000

Plug for PCBs; angled; 5-pole; Cod. A; black



#### Item No.: 890-815

Plug for PCBs; straight; 5-pole; Cod. A; black



#### Item No.: 890-215

Plug; 5-pole; Cod. A; 1,50 mm<sup>2</sup>; black



#### Item No.: 890-115

Plug; with strain relief housing; 5-pole; 1,50 mm<sup>2</sup>; black



#### Item No.: 890-715

Snap-in plug; 5-pole; Cod. A; 1,50 mm<sup>2</sup>; 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.: 897-2003**

Protective cap; Type2; 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 Shield termination

#### 1.3.3.1 Shield termination



**Item No.: 890-526**

Shield connecting plate; 5-pole; for sockets

### 1.3.4 Tool

#### 1.3.4.1 Operating tool



**Item No.: 890-385**

Operating tool; 5-way; green

**Item No.: 210-719**

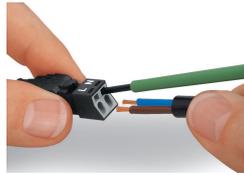
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

## Installation Notes

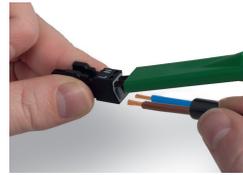
### Conductor termination



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.

### Shield termination



Connector with shield termination



Apply the shield to the sheathed cable.  
Strip length, outer insulation = 30 mm  
Shield length = 8 mm



Push the shield connecting plate into the connector until fully inserted.



First insert the wired connector into strain relief housing, then snap clamp and cover.