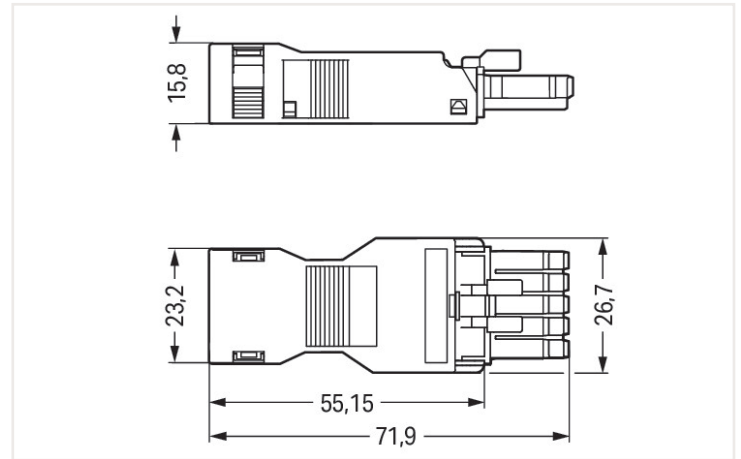


## Data sheet | Item number: 890-105

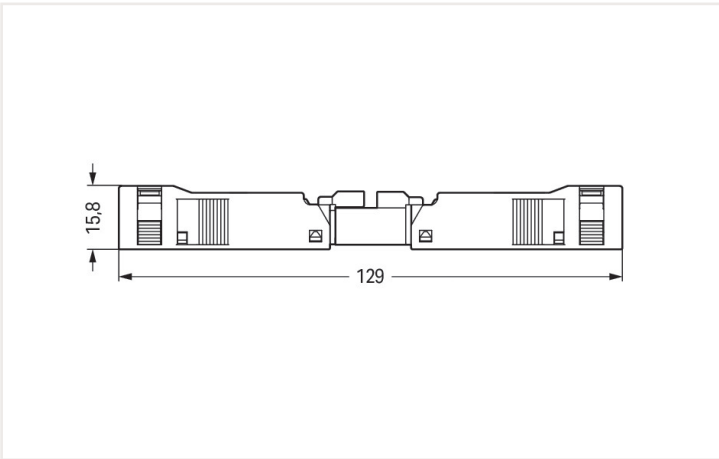
Socket; with strain relief housing; 5-pole; Cod. A; 1,50 mm<sup>2</sup>; black



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



Dimensions in mm



Dimensions in mm

Overall length when mated

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

The WINSTA® MINI female connector/socket 5-pole allows installation of solid and fine-stranded conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to many different requirements in seconds. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including 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. Due to its particularly compact dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is especially suitable in very tight spaces, i.e., for connections when very little room is available. The strip length is 45 mm.

Lower costs through fast commissioning and elimination of service expenses – solutions from WINSTA® MINI

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It ensures fast, secure and, above all, error-free installation of components and cables. Choose quality and durability – the WINSTA® MINI pluggable installation connector with marking from WAGO makes the electrical installation of electrical components visibly easier.

- effective protection against mismatching
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- for any mains application
- ready for immediate use
- quick replacement of defective units during ongoing operation

## Item includes



Item no.: 890-205

1

Item no.: 890-505

1

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

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

## Electrical data

## Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	400 V
Rated impulse voltage (III/3)	6 kV
Rated current	13 A
Legend (ratings)	(III / 3) △ Overvoltage category III / Pollution degree 3

## Ratings per UL

Note for the US market	Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 5 A and voltages up to 600 V. For further information, please contact your local sales office.
Rated voltage (UL 1977)	600 V
Rated current UL 1977	12 A

## General

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket
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## Connection data

Total number of connection points	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
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

Application	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:
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 data can be found here</a>
Color	black
Cover color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper or copper alloy; surface-treated
Fire load	0.299 MJ
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)
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 8.0	EC002560
ETIM 7.0	EC002560
PU (SPU)	50 Stück
Packaging type	Box
Country of origin VKOrg Germany	DE
GTIN	4045454232870
Customs tariff number VKOrg Germany	85366990990

### Approvals and certificates

#### Country specific Approvals



Approval	Standard	Certificate name
CCA DEKRA Certification B.V.	EN 61535	71-11299
CCA DEKRA Certification B.V.	IEC 61535	NL-64352

#### Ship Approvals



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)

#### UL-Approvals



Approval	Standard	Certificate name
cURus Underwriters Laboratories Inc.	UL 1977	E45171

## 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; 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](#)

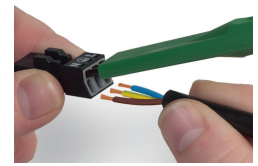
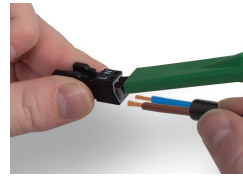
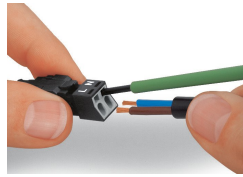
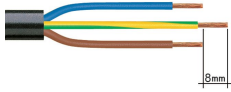
Operating tool; 5-way; green

**Item no.:** [210-719](#)

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

## Installation notes

### Conductor termination



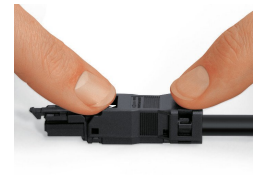
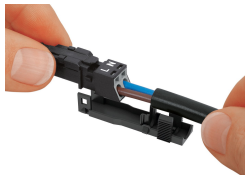
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

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.

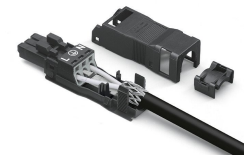
Push down strain relief clamp with 2.5 mm screwdriver alternately on both sides.

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.