# Data Sheet | Item Number: 890-113
## Plug; with strain relief housing; 3-pole; 1,50 mm²; black
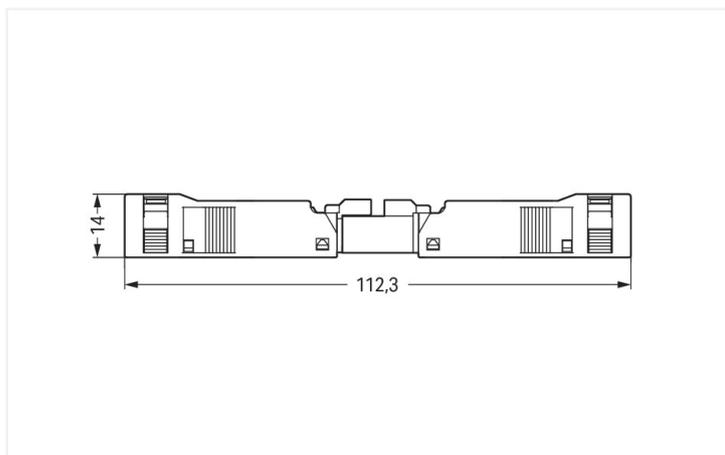https://www.wago.com/890-113

Color: ■ black
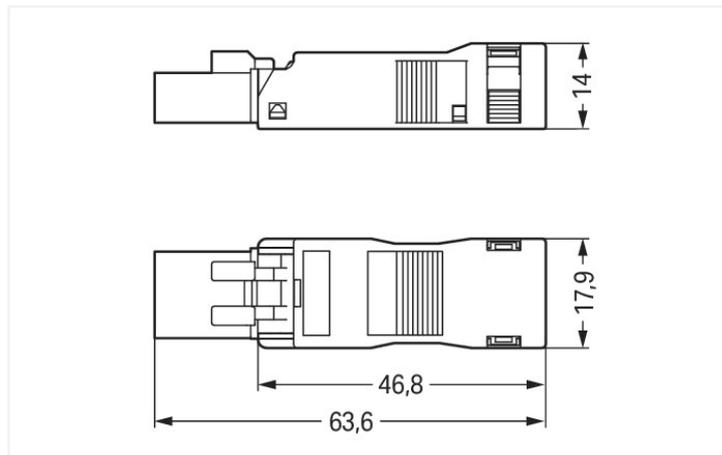
Dimensions in mm

Dimensions in mm
Overall length when mated

Male connector/plug *WINSTA*® MINI A coding

The *WINSTA*® MINI male connector/plug 3-pole allows assembly 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 various requirements in next to no time. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. The pluggable installation connector is protected against ingress by solid granular objects with a diameter below 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. *WINSTA*® MINI is our response to the trend toward miniaturisation. Our smallest pluggable connection system is especially suitable for lights, for instance, since due to LED technology, these offer much less space for the connection technology. The strip length is 40 mm.

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

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and thus more efficient, even more reliable, and error-free. Use of this pre-assembled system reduces assembly times and errors during installation at the construction site. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismating from WAGO.

- protection against mismating eliminates errors
- consistent IP40 protection
- with A coding for a large number of uses

- custom-engineered solutions
- convenient installation and commissioning

## This item includes:

| | |
|---|---|
| **Item No.: 890-213** 1 | **Item No.: 890-503** 1 |
| Plug; 3-pole; Cod. A; 1,50 mm²; black | Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 … 10.0 mm; 37 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 | 250 V | - | - |
| Rated impulse withstand voltage | 4 kV | - | - |
| Rated current | 16 A | - | - |

| Approvals per | UL 1977 |
|---|---|
| Rated voltage | 600 V |
| Rated current | 14 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 | 3 |
| Total number of potentials | 3 |
| PE function | Preceding PE contact |

### Connection 1

| | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool Push-in |
| Nominal cross-section | 1.5 mm² / 16 AWG |
| Solid conductor | 0.25 … 1.5 mm² / 22 … 16 AWG |
| Solid conductor; push-in termination | 0.75 … 1.5 mm² / 20 … 16 AWG |
| Stranded conductor | 0.25 … 1 mm² / 22 … 18 AWG |
| Fine-stranded conductor | 0.25 … 1.5 mm² / 22 … 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 … 0.75 mm² / 22 … 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 … 0.75 mm² / 22 … 20 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 0.75 mm² / 20 AWG |
| Strip length | 9 mm / 0.35 inches |

## Connection 1

| | |
|---|---|
| Pole number | 3 |
| Connectable sheathed cable diameter | 4.5 … 10 mm |
| Conductor entry direction to mating direction | 0 ° |
| Strip length (outer insulation) | 40 mm |

## Physical data

| | |
|---|---|
| Pin spacing | 4.4 mm / 0.173 inches |
| Width | 17.9 mm / 0.705 inches |
| Height | 14 mm / 0.551 inches |
| Depth | 63.6 mm / 2.504 inches |

## Mechanical data

| | |
|---|---|
| Use | General mains applications |
| Coding | A |
| Variable coding | No |
| Marking | N ⏚ L |
| Potential marking | N ⏚ L |
| 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) | Male connector/plug |
| Connector (connection type) | for conductor |
| Mismating protection | Yes |
| Note on mismating protection | All WINSTA® components are 100% protected against mismating when:<br>a.) plugging different numbers of poles<br>b.) plugging while rotated 180<br>c.) plugging while laterally staggered<br>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) | Information on material specifications can be found here |
| 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 | 0.195 MJ |
| Connector color | black |
| Strain relief color | black |
| Weight | 8.5 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 | EU |
| GTIN | 4045454232900 |
| 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 10.0 | EC002560 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant,No Exemption |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | EN 61535 | 71-123231 |
| CCA<br>DEKRA Certification B.V. | IEC 61535 | NL-85020 |
| cURus<br>Underwriters Laboratories Inc. | UL 1977 | E45171 |

### Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | Steel Vessel Rules | 24-0095973-PDA |
| DNV GL<br>Det Norske Veritas, Germanischer Lloyd | - | TAE00001Z6 |
| LR<br>Lloyds Register | EN 61535 | LR23317167TA |
| PRS<br>Polski Rejestr Statków | - | TE/1096/880590/23 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

| | |
|---|---|
| Environmental Product Compliance 890-113 | ↓ |

### Documentation

**Bid Text**

| | | | |
|---|---|---|---|
| 890-113 | 19.02.2019 | xml 3.03 KB | ↓ |
| 890-113 | 08.06.2015 | doc 23.00 KB | ↓ |

### CAD/CAE-Data

**CAD data**

| | |
|---|---|
| 2D/3D Models 890-113 | ↓ |

**CAE data**

| | |
|---|---|
| EPLAN Data Portal 890-113 | ↓ |
| WSCAD Universe 890-113 | ↓ |
| ZUKEN Portal 890-113 | ↓ |

## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Cable assembly

**Item No.: 891-8993/105-101**
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; black

**Item No.: 891-8993/005-101**
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; black

#### 1.1.2 Distribution connector

**Item No.: 890-634**
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black

**Item No.: 890-636**
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black

**Item No.: 890-606**
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black

**Item No.: 890-615**
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

### 1.1.3 Female connector/socket

**Item No.: 890-703**
Snap-in socket; 3-pole; Cod. A; 1,50 mm²; black

**Item No.: 890-803/011-000**
Socket for PCBs; angled; 3-pole; Cod. A; black

**Item No.: 890-803**
Socket for PCBs; straight; 3-pole; Cod. A; black

**Item No.: 890-203**
Socket; 3-pole; Cod. A; 1,50 mm²; black

**Item No.: 890-103**
Socket; with strain relief housing; 3-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 Shield termination

### 1.3.3.1 Shield termination

**Item No.: 890-523**
Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

## 1.3.4 Tool

### 1.3.4.1 Operating tool

Item No.: 890-383
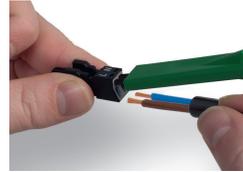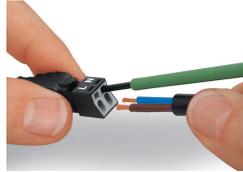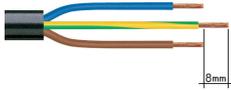Operating tool; 3-way; green

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.

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

Current addresses can be found at:: www.wago.com