

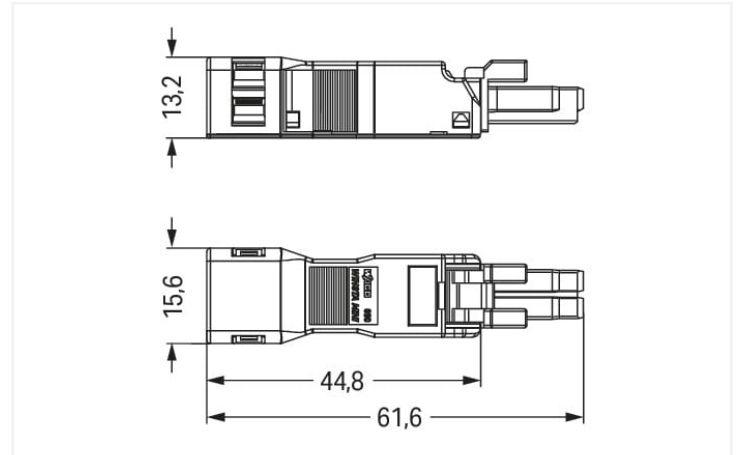
## Data Sheet | Item Number: 890-102

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

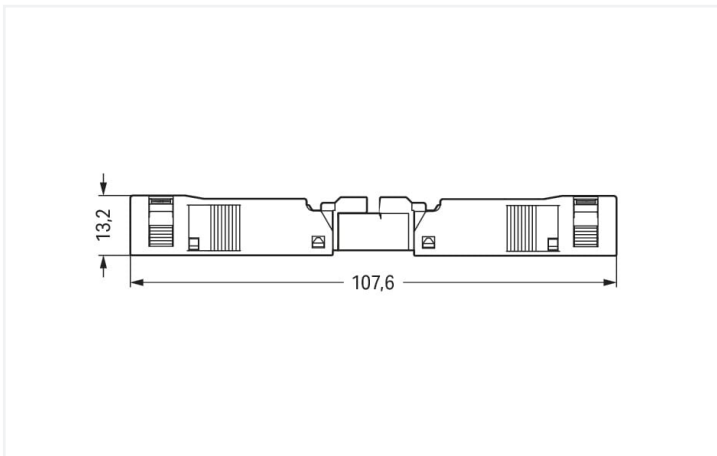
<https://www.wago.com/890-102>



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<br>approx. 0.25 mΩ contact transition plug/<br>socket |

Connection data

| Clamping units                                             |  | 2                                             |
|------------------------------------------------------------|--|-----------------------------------------------|
| Total number of potentials                                 |  | 2                                             |
| Connection 1                                               |  |                                               |
| Connection technology                                      |  | Push-in CAGE CLAMP®                           |
| Actuation type                                             |  | Operating tool<br>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:<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)               | <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                          | 0.196 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)   |
| eCl@ss 10.0           | 27-44-06-05   |
| eCl@ss 9.0            | 27-44-06-05   |
| ETIM 9.0              | EC002560      |
| ETIM 8.0              | EC002560      |
| PU (SPU)              | 50 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4045454231729 |
| Customs tariff number | 85366990990   |

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

Approvals / Certificates

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

Approvals for marine applications

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



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-102

↓

| Documentation |            |     |          |   |
|---------------|------------|-----|----------|---|
| Bid Text      |            |     |          |   |
| 890-102       | 08.06.2015 | doc | 23.00 KB | ↓ |
| 890-102       | 19.02.2019 | xml | 3.03 KB  | ↓ |

CAD/CAE-Data

CAD data

2D/3D Models 890-102

↓

CAE data

EPLAN Data Portal 890-102

↓

WSCAD Universe 890-102

↓

ZUKEN Portal 890-102

↓

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

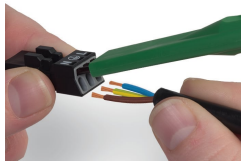
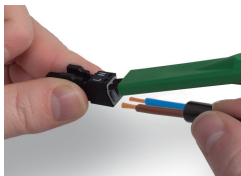
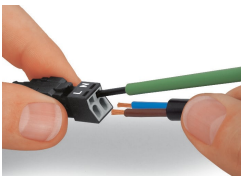


**Item No.: 890-382**  
Operating tool; 2-way; green

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

Installation Notes

Conductor termination



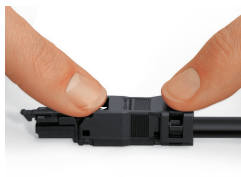
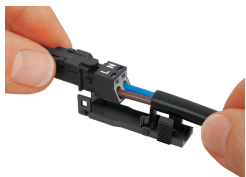
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

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.