

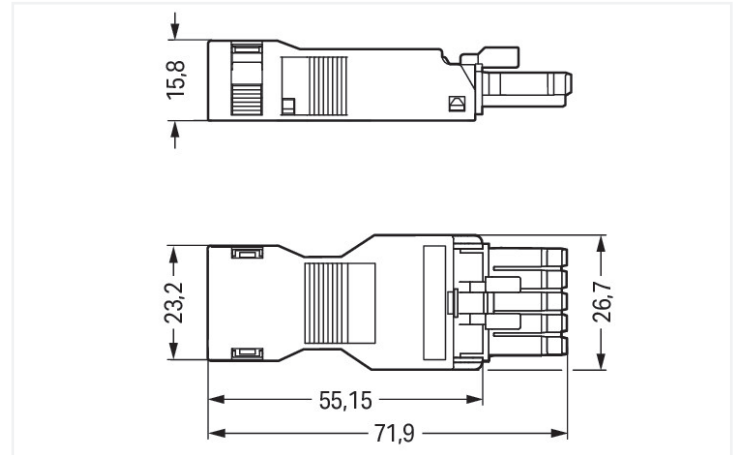
## Data Sheet | Item Number: 890-105

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

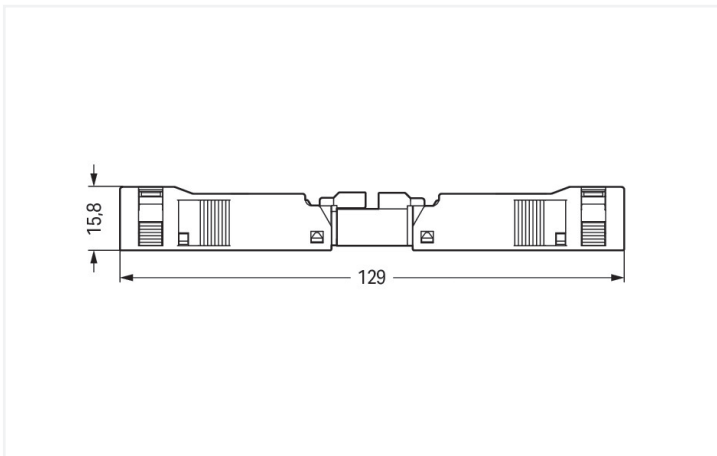
<https://www.wago.com/890-105>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

### Female connector/socket WINSTA® MINI with strain relief

The WINSTA® MINI female connector/socket with protection against mismatching provides the foundation for assembly of fine-stranded and solid conductors. The pluggable installation connectors with spring pressure connection technology work entirely without screw connections. They allow resource-efficient, error-free installation in numerous applications. For greater security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismatching. 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. Thanks to its particularly small dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is especially suitable in very restricted spaces, i.e., for connections when very little room is available. A range up to 45 mm can be used for the strip length.

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

WINSTA® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It allows error-free installation of cables and components, quickly and reliably. Choose durability and quality – with protection against mismatching from WAGO makes the electrical installation of electrical components visibly easier.

- protection against mismatching eliminates errors
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- with A coding for a great number of uses
- flexible installation to save space
- rapid, structured electrical installation



This item includes:



|  |   |  |   |
|--|---|--|---|
| <a href="#">Item No.: 890-205</a>                    | 1 | <a href="#">Item No.: 890-505</a>  | 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 60664-1 |       |     |    | Approvals per UL 1977 |       |
|----------------------------|-------|-----|----|-----------------------|-------|
| Overvoltage category       | III   | III | II | Rated voltage         | 600 V |
| Pollution degree           | 3     | 2   | 2  | Rated current         | 12 A  |
| Nominal voltage            | 400 V | -   | -  |                       |       |
| Rated surge voltage        | 6 kV  | -   | -  |                       |       |
| Rated current              | 13 A  | -   | -  |                       |       |

| General information        |   |
|----------------------------|---|
| Note on contact resistance | approx. 1 mΩ of contact resistance<br>approx. 0.25 mΩ contact transition plug/ socket |

Connection data

| Clamping units             | 5 | Connection 1   |   |
|----------------------------|---|--|---|
| Total number of potentials | 5 | 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  | 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                         |  |
|---|--|
| 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:<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                          | 0.325 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 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<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  |          |          |                  |   |   |   |   |   |   |
|  |           | <table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor-<br/>mity<br/>WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor-<br/>mity<br/>WAGO GmbH &amp; Co. KG</td><td>-</td><td>-</td></tr></table> | Approval | Standard | Certificate Name | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | - | - | UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG | - | - |
| Approval   | Standard  | Certificate Name  |          |          |                  |   |   |   |   |   |   |
| EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG  | -         | -   |          |          |                  |   |   |   |   |   |   |
| UK-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG  | -         | -   |          |          |                  |   |   |   |   |   |   |

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 890-105 |  |  |  |

Documentation

|          |            |                 |  |
|----------|------------|-----------------|--|
| Bid Text |            |                 |  |
| 890-105  | 19.02.2019 | xml<br>3.01 KB  |  |
| 890-105  | 08.06.2015 | doc<br>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 mm²; 1 m; 1,50 mm²; black



**Item No.: 891-8995/006-101**  
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; 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 mm²; black













**Item No.: 890-115**  
Plug; with strain relief housing; 5-pole; 1,50 mm²; black



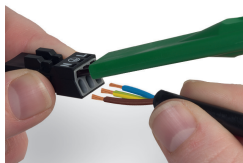
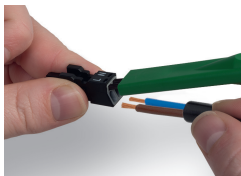
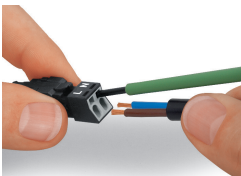
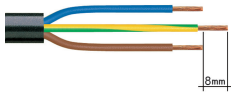
**Item No.: 890-715**  
Snap-in plug; 5-pole; Cod. A; 1,50 mm²; black



|   |  |  |   |
|---|--|--|---|
| 1.2 Required Accessories  |  |  |   |
| 1.2.1 Locking system  |  |  |   |
| 1.2.1.1 Locking system  |  |  |   |
|                |                           |  |  |
| <a href="#">Item No.: 890-111</a><br>Locking lever; for flying leads; for tool operation; black | <a href="#">Item No.: 890-131</a><br>Locking lever; for flying leads; for tool operation; white            | <a href="#">Item No.: 890-101</a><br>Locking lever; for manual operation; black    | <a href="#">Item No.: 890-121</a><br>Locking lever; for manual operation; white     |
| 1.3 Optional Accessories  |  |  |   |
| 1.3.1 Cover   |  |  |   |
| 1.3.1.1 Cover   |  |  |   |
|                |  |  |   |
| <a href="#">Item No.: 897-2003</a><br>Protective cap; Type2; for sockets and plugs; PVC; red    |  |  |   |
| 1.3.2 Installation  |  |  |   |
| 1.3.2.1 Mounting accessories  |  |  |   |
|              |                         |  |   |
| <a href="#">Item No.: 890-310</a><br>Mounting carrier; 2- to 5-pole; for flying leads; black    | <a href="#">Item No.: 890-311</a><br>Mounting carrier; 2- to 5-pole; for flying leads; white               |  |   |
| 1.3.3 Shield termination  |  |  |   |
| 1.3.3.1 Shield termination  |  |  |   |
|              |  |  |   |
| <a href="#">Item No.: 890-526</a><br>Shield connecting plate; 5-pole; for sockets               |  |  |   |
| 1.3.4 Tool  |  |  |   |
| 1.3.4.1 Operating tool  |  |  |   |
|              |                         |  |   |
| <a href="#">Item No.: 890-385</a><br>Operating tool; 5-way; green                               | <a href="#">Item No.: 210-719</a><br>Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft |  |   |

Installation Notes

Conductor termination



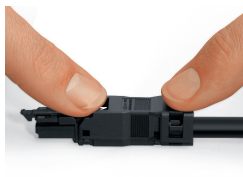
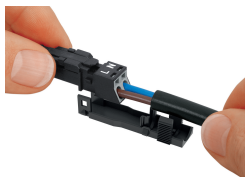
- 1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm

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.