

Data sheet | Item number: 890-103

Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black

www.wago.com/890-103

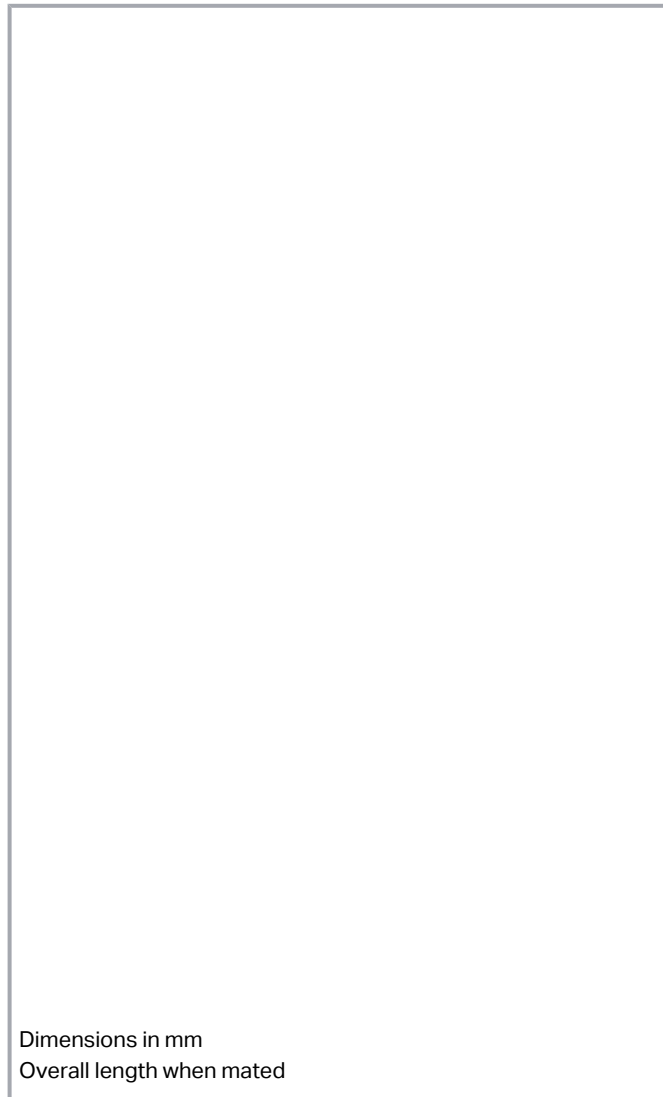


Color:

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WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

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Item description

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

For power and signal transmission: The *WINSTA*® MINI female connector/socket with protection type IP40. Our pluggable installation connectors with spring pressure connection technology function without screw connections. They allow resource-efficient, error-free installation in a large number of applications. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. The pluggable installation connector is protected in accordance with protection type IP40. Users' fingers and tools will never come into contact with live elements. 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

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connections when very little room is available. The strip length is 40 mm.

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

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Choose quality and durability – the WINSTA® MINI pluggable installation connector with marking from WAGO makes the installation of electrical components substantially easier.

- effective protection against mismatching
- compact design for conductors with a cross-section up to 1.5 mm²
- with A coding for use in a large number of general mains applications
- custom-engineered solutions
- convenient installation and commissioning

Data

Electrical data

Ratings per IEC/EN

| Ratings per | IEC/EN 60664-1 |
|-------------------------------|---|
| Nominal voltage (III/3) | 250 V |
| Rated impulse voltage (III/3) | 4 kV |
| Rated current | 16 A |
| Legend (ratings) | (III / 3) ≙ Overvoltage category III / Pollution degree 3 |

Ratings per UL 1977

| | |
|-------------------------|---|
| 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 | 14 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

| | |
|----------------------------|---|
| Connection points | 3 |
| Total number of potentials | 3 |

Connection 1

| | |
|--|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool Push-in |
| Nominal cross-section | 1.5 mm ² / 16 AWG |
| Solid conductor | 0.25 ... 1.5 mm ² / 22 ... 16 AWG |
| Solid conductor; push-in termination | 0.75 ... 1.5 mm ² / 20 ... 16 AWG |
| Stranded conductor | 0.25 ... 1 mm ² / 22 ... 18 AWG |
| Fine-stranded conductor | 0.25 ... 1.5 mm ² / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 0.75 mm ² / 22 ... 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.75 mm ² / 22 ... 20 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 0.75 mm ² / 20 AWG |
| Strip length | 9 mm / 0.35 inches |
| Pole number | 3 |
| 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

| | |
|---|--|
| Application | General mains applications |
| Coding | A |
| Variable coding | No |
| Marking | L $\frac{1}{3}$ N |
| Potential marking | L $\frac{1}{3}$ 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 |

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| | |
|--|--|
| 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 <i>WINSTA</i> [®] 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) | Information on material specifications can be found here |
| 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 |
| Contact plating | Tin |
| Fire load | 0.223 MJ |
| Weight | 7.2 g |

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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

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|-----------------------|---------------|
| 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 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4045454232856 |
| Customs tariff number | 85366990990 |

Environmental Product Compliance

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

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|--|--------------------------|------------------|
| | CCA DEKRA Certification B.V. | IEC 61535 | NL-85020 |
| | CCA DEKRA Certification B.V. | EN 61535 | 71- 123231 |
| | cURus Underwriters Laboratories Inc. | UL 1977 | E45171 |

Declarations of conformity and manufacturer's declarations

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---|--------------------------|------------------|
| | EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
| | UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

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Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|------|---|--------------------------|--------------------------|
| | ABS American Bureau of Shipping | Steel Vessel Rules | 19- HG1869855- PDA |
| | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAE00001Z6 |
| | LR Lloyds Register | EN 61535 | 08/20047 (E2) |

Counterpart

| | |
|--|--|
| Item no.890-113 Plug; with strain relief housing; 3-pole; 1,50 mm ² ; black | www.wago.com/890-113 |
| Item no.890-213 Plug; 3-pole; Cod. A; 1,50 mm ² ; black | www.wago.com/890-213 |
| Item no.890-606 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black | www.wago.com/890-606 |
| Item no.890-615 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black | www.wago.com/890-615 |
| Item no.890-634 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black | www.wago.com/890-634 |
| 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 | www.wago.com/890-636 |
| Item no.890-713 Snap-in plug; 3-pole; Cod. A; 1,50 mm ² ; black | www.wago.com/890-713 |
| Item no.890-813 Plug for PCBs; straight; 3-pole; Cod. A; black | www.wago.com/890-813 |
| Item no.890-813/011-000 Plug for PCBs; angled; 3-pole; Cod. A; black | www.wago.com/890-813/011-000 |
| Item no.891-8993/005-101 pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm ² ; black | www.wago.com/891-8993/005-101 |
| Item no.891-8993/205-101 pre-assembled connecting cable; Eca; Plug/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm ² ; black | www.wago.com/891-8993/205-101 |

Required accessories

Locking levers

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|--|--|
| Locking system | |
| Item no.: 890-111 Locking lever; for flying leads; for tool operation; black | www.wago.com/890-111 |

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| | |
|--|--|
| Item no.: 890-101 Locking lever; for manual operation; black | www.wago.com/890-101 |
| Item no.: 890-121 Locking lever; for manual operation; white | www.wago.com/890-121 |
| Item no.: 890-131 Locking lever; for flying leads; for tool operation; white | www.wago.com/890-131 |

Optional accessories

Cover

| | |
|---|--|
| Cover | |
| Item no.: 897-2001 Protective cap; Type1; for sockets and plugs; PVC; red | www.wago.com/897-2001 |

Shield termination

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|--|--|
| Shield termination | |
| Item no.: 890-523 Shield connecting plate; 3-pole; for sockets and plugs; silver-colored | www.wago.com/890-523 |

Tool

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|---|--|
| Operating tool | |
| Item no.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft | www.wago.com/210-719 |
| Item no.: 890-383 Operating tool; 3-way; green | www.wago.com/890-383 |

Mounting

| | |
|---|--|
| Mounting accessories | |
| Item no.: 890-310 Mounting carrier; 2- to 5-pole; for flying leads; black | www.wago.com/890-310 |
| Item no.: 890-311 Mounting carrier; 2- to 5-pole; for flying leads; white | www.wago.com/890-311 |

Downloads

Documentation

Bid Text

| | | | |
|------------------------|--------------|----------------|----------|
| 890-103 X81 - Datei | 2019 年2月19 日 | xml 3.1 kB | Download |
| 890-103 doc - Datei | 2015 年6月8 日 | doc 23.6 kB | Download |

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CAD/CAE-Data

CAD data

| | | |
|----------------------|---------------------|--------------------------|
| 2D/3D Models 890-103 | URL | Download |
|----------------------|---------------------|--------------------------|

CAE data

| | | |
|---------------------------|---------------------|--------------------------|
| EPLAN Data Portal 890-103 | URL | Download |
|---------------------------|---------------------|--------------------------|

| | | |
|------------------------|---------------------|--------------------------|
| WSCAD Universe 890-103 | URL | Download |
|------------------------|---------------------|--------------------------|

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|----------------------|---------------------|--------------------------|
| ZUKEN Portal 890-103 | URL | Download |
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Environmental Product Compliance

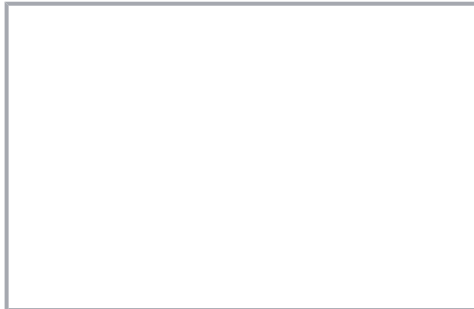
Compliance Search

| | | |
|--|---------------------|--------------------------|
| Environmental Product Compliance 890-103 | URL | Download |
|--|---------------------|--------------------------|

Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black

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.

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To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.

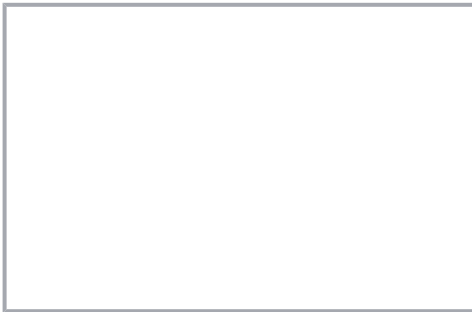
Terminate solid conductors by simply pushing them in.



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.

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The printed marking of the connector is clearly visible in the openings of the strain relief housing.

Shield termination



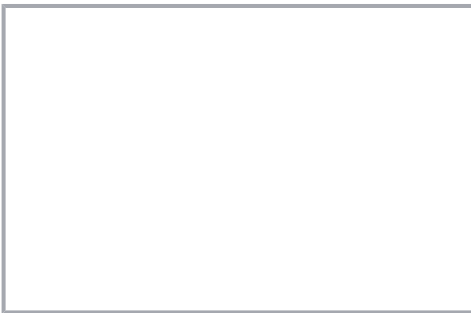
Connector with shield termination



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.

Product family

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WINSTA® MINI

[Show all products from the family](#)

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