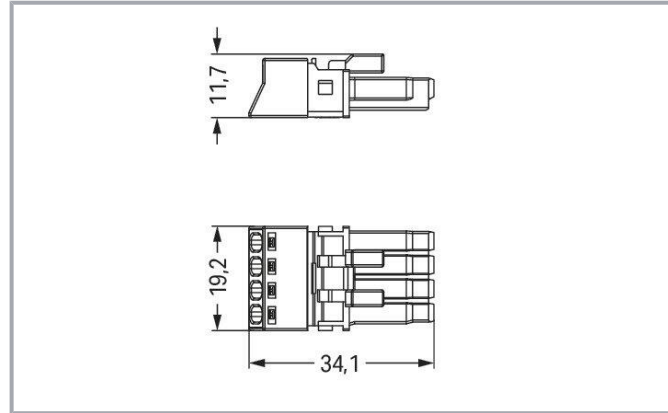
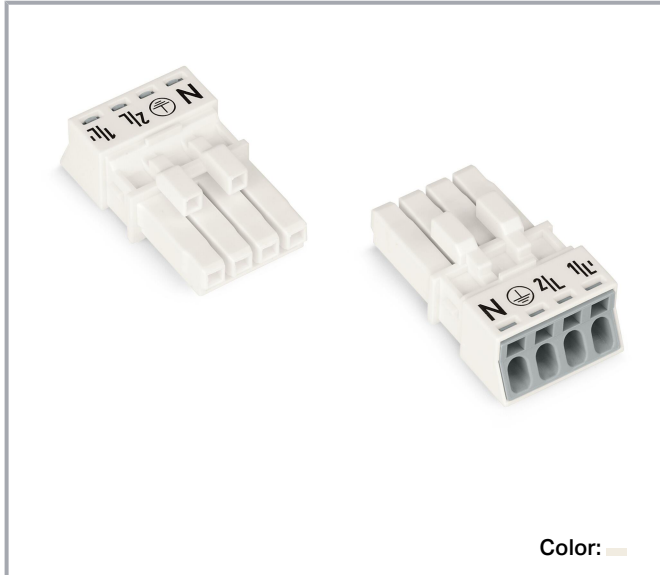


Data sheet | Item number: 890-224

Socket; 4-pole; Cod. A; 1,50 mm²; white

www.wago.com/890-224



Item description

Female connector/socket WINSTA® MINI with protection against mismatching

Use effective pluggable connections instead of laborious screw connections: With the WINSTA® MINI female connector/socket A coding. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to a huge variety of requirements in no time flat. The coding options reduce installation errors, allowing fast, secure wiring of all components. The WINSTA® MINI pluggable installation connector with A coding in black or white is normally used for general mains applications in power distribution. WINSTA® MINI is our response to the trend toward miniaturisation. Our smallest pluggable connection system is primarily suited for lights, for instance, since due to LED technology, these offer much less space for the connection technology.

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

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 protection against mismatching from WAGO makes the installation of electrical components noticeably easier.

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

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

Do you have any questions about our products?
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- effective protection against mismatching
- easy tool-free operation, a wide range of coding options
- suitable for any application
- exact dimensions
- rapid, structured electrical installation

Data

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 | 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 | 12 A |

General

| | |
|----------------------------|--|
| Note on contact resistance | approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket |
|----------------------------|--|

Connection data

| | |
|----------------------------|---|
| Connection points | 4 |
| Total number of potentials | 4 |

Connection 1

| | |
|-----------------------|---------------------------|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool Push-in |

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



| | |
|--|---|
| 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 | 4 |
| Conductor entry direction to mating direction | 0° |

Physical data

| | |
|-------------|------------------------|
| Pin spacing | 4.4 mm / 0.173 inches |
| Width | 19.2 mm / 0.756 inches |
| Height | 11.7 mm / 0.461 inches |
| Depth | 34.1 mm / 1.343 inches |

Mechanical Data

| | |
|---|--|
| Application | General mains applications |
| Coding | A |
| Variable coding | No |
| Marking | N ∇ 2/L 1/L' |
| Potential marking | N ∇ 2/L 1/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 | IP20; IP40 with strain relief housing |

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 |

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



- 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). |

Material Data

Note (material data)

Information on material specifications can be found here

| | |
|-----------------------------|---|
| Color | white |
| 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 | 0.109 MJ |
| Weight | 4.9 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 pcs |
| Packaging type | box |

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

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| | |
|-----------------------|---------------|
| Country of origin | DE |
| GTIN | 4045454233198 |
| 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 | - | - |

Approvals for marine applications

| Logo | Approval | Additional Approval Text | Certificate name |
|--|------------------------------------|--------------------------|------------------|
|  | ABS American Bureau of Shipping | Steel Vessel Rules | 19-HG1869855-PDA |
| | DNV GL | - | TAE00001Z6 |

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

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Det Norske Veritas, Germanischer Lloyd

LR
Lloyds Register

EN 61535

08/20047
(E2)

Counterpart

| | | |
|---|--|--|
|  | Item no.890-234 Plug; 4-pole; Cod. A; 1,50 mm ² ; white | www.wago.com/890-234 |
|  | Item no.890-134 Plug; with strain relief housing; 4-pole; 1,50 mm ² ; white | www.wago.com/890-134 |
|  | Item no.890-676 T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white | www.wago.com/890-676 |
|  | Item no.890-677 T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white | www.wago.com/890-677 |
|  | Item no.890-734 Snap-in plug; 4-pole; Cod. A; 1,50 mm ² ; white | www.wago.com/890-734 |
|  | Item no.890-834 Plug for PCBs; straight; 4-pole; Cod. A; white | www.wago.com/890-834 |
|  | Item no.890-834/011-000 Plug for PCBs; angled; 4-pole; Cod. A; white | www.wago.com/890-834/011-000 |
|  | Item no.890-994 h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white | www.wago.com/890-994 |
|  | Item no.890-995 h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white | www.wago.com/890-995 |
|  | Item no.891-8994/006-102 pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm ² ; 1 m; 1,50 mm ² ; white | www.wago.com/891-8994/006-102 |
|  | Item no.891-8994/206-102 pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm ² ; 1 m; 1,50 mm ² ; white | www.wago.com/891-8994/206-102 |

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Required accessories

Strain relief

Strain relief housing



Item no.: 890-504

Strain relief housing; 4-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black

www.wago.com/890-504



Item no.: 890-514

Strain relief housing; 4-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; white

www.wago.com/890-514

Locking levers

Locking system



Item no.: 890-111

Locking lever; for flying leads; for tool operation; black

www.wago.com/890-111



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

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

Shield termination

Shield termination



Item no.: 890-524

Shield connecting plate; 4-pole; for sockets

www.wago.com/890-524

Tool

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

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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.: 890-384
Operating tool; 4-way; green

www.wago.com/890-384

Cover

Cover



Item no.: 897-2003
Protective cap; Type2; for sockets and plugs; PVC; red

www.wago.com/897-2003

Downloads

Documentation

Bid Text

| | | | |
|------------------------|-------------|----------------|----------|
| 890-224 X81 - Datei | 2019 Feb 19 | xml 3.0 kB | Download |
| 890-224 doc - Datei | 2015 Jun 8 | doc 23.0 kB | Download |

CAD/CAE-Data

CAD data

| | | |
|----------------------|-----|----------|
| 2D/3D Models 890-224 | URL | Download |
|----------------------|-----|----------|

CAE data

| | | |
|------------------------|-----|----------|
| WSCAD Universe 890-224 | URL | Download |
| ZUKEN Portal 890-224 | URL | Download |

Environmental Product Compliance

Compliance Search

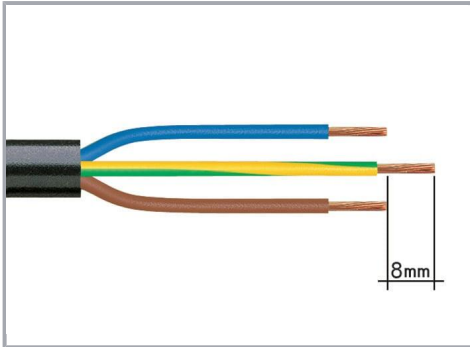
| | | |
|--|-----|----------|
| Environmental Product Compliance 890-224 | URL | Download |
|--|-----|----------|

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

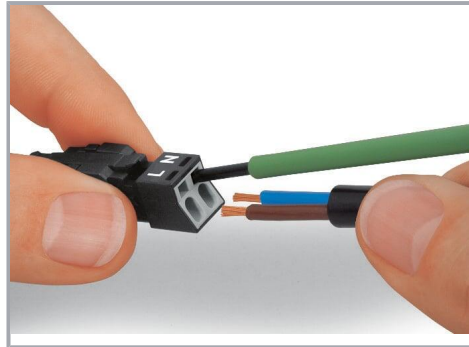
Socket; 4-pole; Cod. A; 1,50 mm²; white

Installation Notes

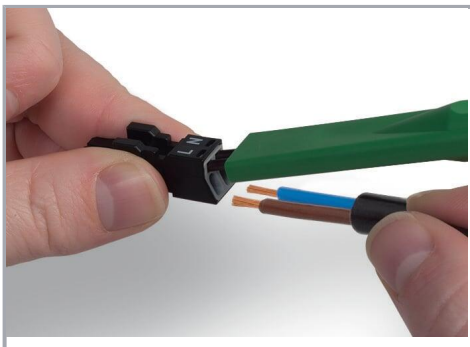
Conductor termination



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

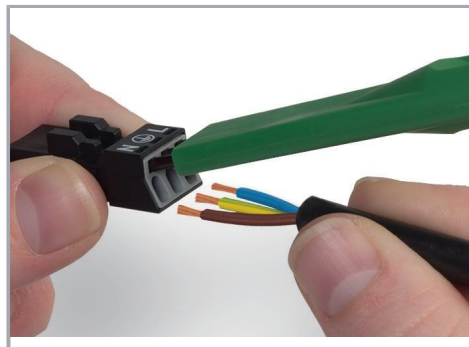


To terminate fine-stranded conductors, open the clamping unit via screwdriver – 2.5 mm blade width – and insert a stripped conductor until it hits the backstop.
Terminate solid conductors by simply pushing them in.



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.

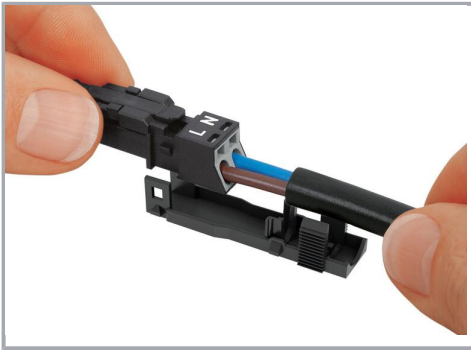


To terminate fine-stranded conductors, open clamping units via operating tool (890-383) and insert stripped conductors until they hit backstop.

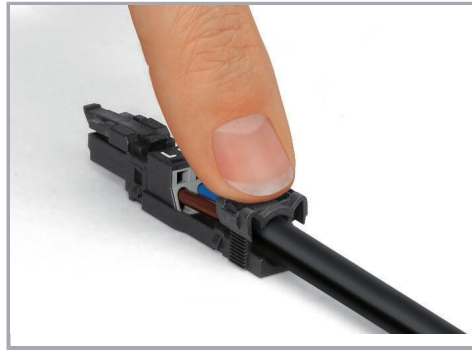
Terminate solid conductors by simply pushing them in.

Installation

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



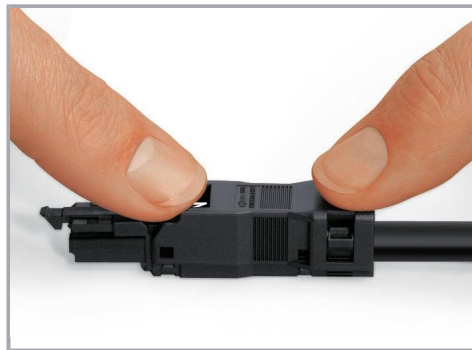
Latch the wired connector into the base of the strain relief housing.



Push down strain relief clamp by hand.



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



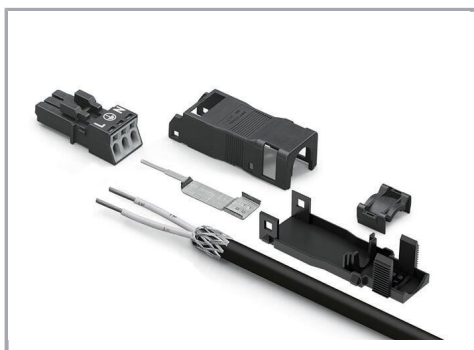
Latch the top of the strain relief housing.

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



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

Shield termination



Connector with shield termination

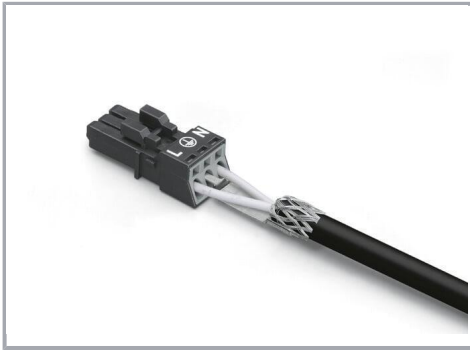


Apply the shield to the sheathed cable.

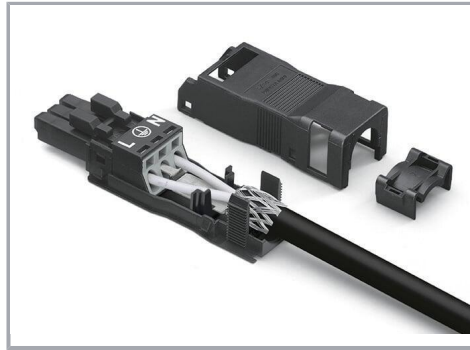
Strip length, outer insulation = 30 mm

Shield length = 8 mm

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



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

WINSTA® MINI

[Show all products from the family](#)

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