

Item description

Male connector/plug WINSTA® MIDI with protection against mismating

The WINSTA® MIDI male connector/plug with protection against mismating supports fast, reliable installation. WAGO pluggable installation connectors are used when requirements repeat or are planned on a specified grid, for example for installing grid lighting or flush-mount lighting. 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 in accordance with protection type IP20 (When mated and secured with a strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas!)). This means that users' fingers will never come into contact with live contact elements. Pluggable installation connectors with B coding from the WINSTA® MIDI line are available in pink, light green, or gray, allowing you to distinguish different circuits, for example for light, pumps or, sun blinds. Usage-specific pole marking is possible in addition. This pluggable installation connector can be used for a voltage load of up to 25 A. As a result, it can also be used for high power loads. The WINSTA® MIDI product line guarantees maximum flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it achieves time-saving, error-free installation and offers customization and flexibility for meeting all installation requirements.

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

WINSTA® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It offers fast, secure and, above all, error-free installation of components and cables. Now you can also reduce installation costs without compromising quality and safety:

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

WAGO GmbH & Co. KG

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with protection type IP20 reduces the need for servicing and prevents unnecessary downtime.

-
- pluggable installation connectors with protection against mismatching
- for automation controllers
- with B coding for use in automation of processes, such as lighting technology, for example
- ready to install and use immediately
- convenient installation and commissioning

Data

Notes

Variants:

Other pole markings

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

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 | 25 A |
| Legend (ratings) | (III / 3) \triangleq 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 16 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 | 23 A |

General information

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

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

Connection data

| | |
|----------------------------|---|
| Connection points | 6 |
| Total number of potentials | 3 |

Connection 1

| | |
|--|--|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool Push-in |
| Nominal cross-section | 4 mm ² / 12 AWG |
| Solid conductor | 0.5 ... 4 mm ² / 20 ... 12 AWG |
| Solid conductor; push-in termination | 1.5 ... 4 mm ² / 16 ... 12 AWG |
| Stranded conductor | 0.5 ... 2.5 mm ² / 20 ... 14 AWG |
| Fine-stranded conductor | 0.5 ... 4 mm ² / 20 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 1.5 mm ² / 20 ... 16 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm ² / 20 ... 14 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 1.5 mm ² / 16 AWG |
| Strip length | 9 mm / 0.35 inches |
| Pole number | 3 |
| Conductor entry direction to mating direction | 0 ° |

Physical data

| | |
|-------------|------------------------|
| Pin spacing | 10 mm / 0.394 inches |
| Width | 30 mm / 1.181 inches |
| Height | 12.9 mm / 0.508 inches |
| Depth | 37.5 mm / 1.476 inches |

Mechanical Data

| | |
|---|--|
| Application | Control technology |
| Coding | B |
| Variable coding | Yes |
| Marking | 3 2 1 |
| Potential marking | 3 2 1 |
| 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) |

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

| | |
|-------------------------|---|
| Number of mating cycles | 200, without resistive load |
| Protection type | IP20; When mated and secured with a strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas!) |

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: 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). |

Material data

Note (material data)

Information on material specifications can be found here

| | |
|-----------------------------|---|
| Color | pink |
| 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 | 0.212 MJ |
| Weight | 10 g |

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

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) | 100 pcs |
| Packaging type | box |
| Country of origin | DE |
| GTIN | 4050821446729 |
| 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 61984 | NL-32104 |
|  | CCA DEKRA Certification B.V. | EN 61984 | 2173495.01 |

| | | | |
|--|---|---------|--------|
|  | cURus Underwriters Laboratories Inc. | UL 1977 | E45171 |
|--|---|---------|--------|

| | | | |
|--|---|---------|---------|
|  | cURus Underwriters Laboratories Inc. | UL 1059 | E 45172 |
|--|---|---------|---------|

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

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 | - | 19- HG1868589- PDA |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAE00001Z6 |
|  | LR Lloyds Register | IEC 61984 | LR22429487TA |

Counterpart

| | | |
|--|--|--|
|  | Item no.770-1613 T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; pink | www.wago.com/770-1613 |
|  | Item no.770-1663 h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; pink | www.wago.com/770-1663 |
|  | Item no.770-1713 T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; pink | www.wago.com/770-1713 |
|  | Item no.770-1716 3-way distribution connector; 3-pole; Cod. B; 1 input; 3 outputs; pink | www.wago.com/770-1716 |

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

**Item no.770-1763**

h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; pink www.wago.com/770-1763

**Item no.770-283**

Socket; 3-pole; Cod. B; 4,00 mm²; pink www.wago.com/770-283

**Item no.770-783**

Snap-in socket; 3-pole; Cod. B; 4,00 mm²; pink www.wago.com/770-783

**Item no.770-883**

Socket for PCBs; straight; 3-pole; Cod. B; pink www.wago.com/770-883

**Item no.770-883/011-000**

Socket for PCBs; angled; 3-pole; Cod. B; pink www.wago.com/770-883/011-000

**Item no.771-9993/005-107**

pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. B; 1 m; 1,00 mm²; pink www.wago.com/771-9993/005-107

**Item no.771-9993/105-107**

pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. B; 1 m; 1,00 mm²; pink www.wago.com/771-9993/105-107

Required accessories**Locking levers****Locking system****Item no.: 770-121**

Locking lever; for flying leads; for manual operation; white www.wago.com/770-121

**Item no.: 770-131**

Locking lever; for flying leads; for tool operation; white www.wago.com/770-131

**Item no.: 770-101**

Locking lever; for flying leads; for manual operation; black www.wago.com/770-101

**Item no.: 770-111**

Locking lever; for flying leads; for tool operation; black www.wago.com/770-111

Optional accessories**Cover****Cover****Item no.: 770-360**

Lockout cap; for plugs; 5-pole; separable; yellow www.wago.com/770-360

Coding**Coding**

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

Item no.: 770-401



Coding pin; for plugs; Plastic; gray

www.wago.com/770-401

Marking accessories

Marker



Item no.: 770-450/000-002

Marker card; Plastic; yellow

www.wago.com/770-450/000-002



Item no.: 770-450/000-001

Marker card; Plastic; green

www.wago.com/770-450/000-001



Item no.: 770-450/000-005

Marker card; Plastic; red

www.wago.com/770-450/000-005



Item no.: 770-450

Marker card; Plastic; white

www.wago.com/770-450



Item no.: 770-450/000-006

Marker card; Plastic; blue

www.wago.com/770-450/000-006



Item no.: 770-450/000-012

Marker card; Plastic; orange

www.wago.com/770-450/000-012

Tool

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.: 770-383

Operating tool; 3-way; green

www.wago.com/770-383

Mounting

Mounting accessories



Item no.: 770-318

Snap-in frame; 3-pole; 1.0 ... 3.0 mm; black

www.wago.com/770-318



Item no.: 770-338

Snap-in frame; 3-pole; 1.0 ... 3.0 mm; white

www.wago.com/770-338

Strain relief

Strain relief housing

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| | | |
|--|---|--|
|  | Item no.: 770-503 Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black | www.wago.com/770-503 |
|  | Item no.: 770-503/023-000 Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; black | www.wago.com/770-503/023-000 |
|  | Item no.: 770-503/021-000 Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; black | www.wago.com/770-503/021-000 |
|  | Item no.: 770-503/035-000 Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; black | www.wago.com/770-503/035-000 |
|  | Item no.: 770-503/038-000 Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; black | www.wago.com/770-503/038-000 |
|  | Item no.: 770-503/032-000 Strain relief housing; 3-pole; with locking clip; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black | www.wago.com/770-503/032-000 |
|  | Item no.: 770-513/038-000 Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; white | www.wago.com/770-513/038-000 |
|  | Item no.: 770-513 Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; white | www.wago.com/770-513 |
|  | Item no.: 770-513/021-000 Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; white | www.wago.com/770-513/021-000 |
|  | Item no.: 770-513/032-000 Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; white | www.wago.com/770-513/032-000 |
|  | Item no.: 770-513/035-000 Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; white | www.wago.com/770-513/035-000 |
|  | Item no.: 770-513/023-000 Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; white | www.wago.com/770-513/023-000 |

Downloads

Documentation

Bid Text

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| | | | |
|------------------------|-------------|----------------|--------------------------|
| 770-293 X81 - Datei | 2019 Feb 19 | xml 3.0 kB | Download |
| 770-293 doc - Datei | 2015 Jun 8 | doc 24.6 kB | Download |

CAD/CAE-Data

CAE data

| | | |
|------------------------|---------------------|--------------------------|
| WSCAD Universe 770-293 | URL | Download |
| ZUKEN Portal 770-293 | URL | Download |

CAD data

| | | |
|----------------------|---------------------|--------------------------|
| 2D/3D Models 770-293 | URL | Download |
|----------------------|---------------------|--------------------------|

Asset Administration Shell

| | | |
|------------------------------------|---------------------|--------------------------|
| Asset Administration Shell 770-293 | URL | Download |
|------------------------------------|---------------------|--------------------------|

Environmental Product Compliance

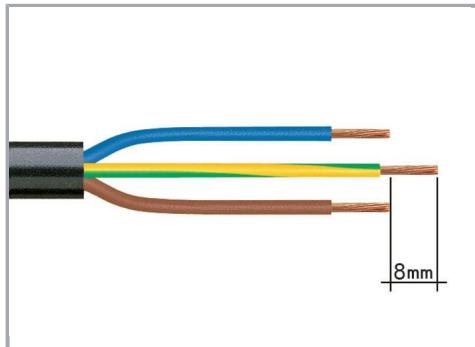
Compliance Search

| | | |
|---|---------------------|--------------------------|
| Environmental Product Compliance 770-293 Plug; 3-pole; Cod. B; 4,00 mm ² ; pink | URL | Download |
|---|---------------------|--------------------------|

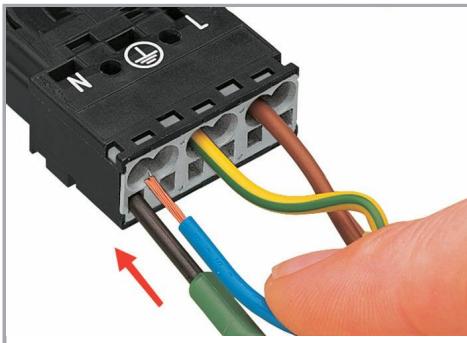
Installation Notes

Conductor termination

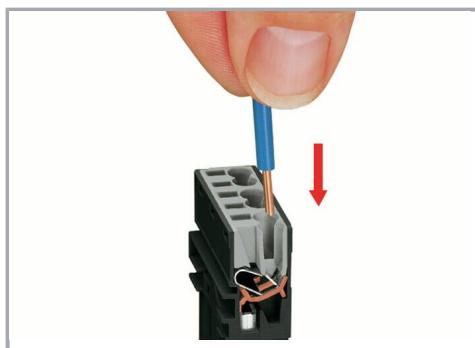
Subject to changes. Please also observe the further product documentation!



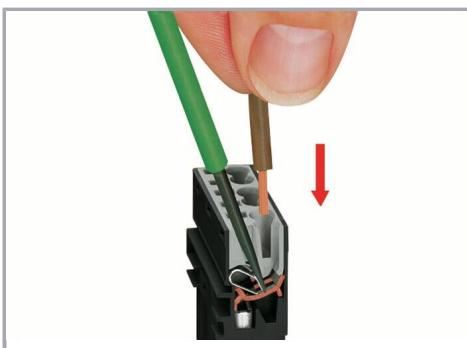
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

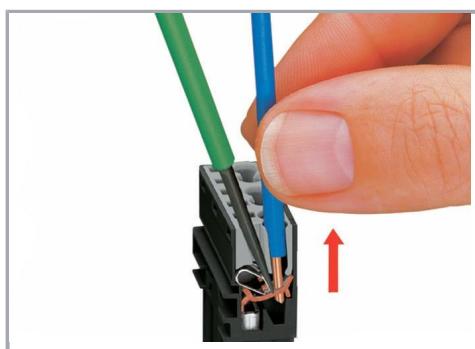


Insert the stripped solid conductor until it hits the backstop.



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.

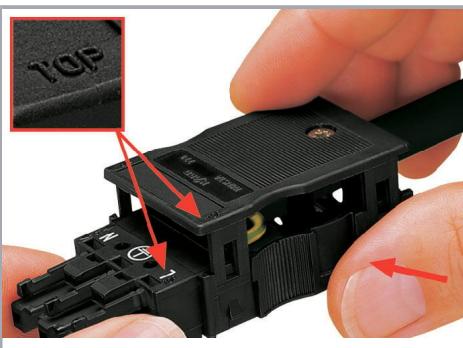
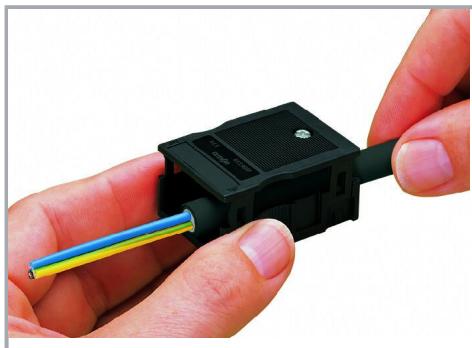
Conductor removal



To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

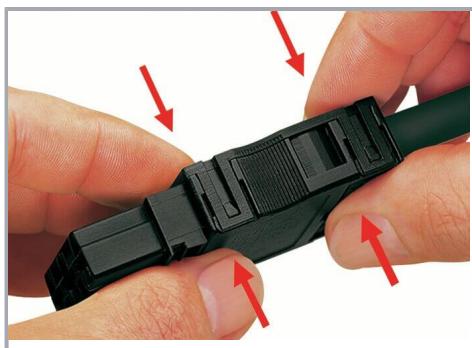
Subject to changes. Please also observe the further product documentation!

Installation



We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.

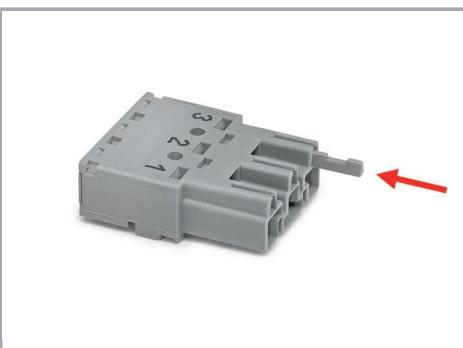
Latch the strain relief housing onto the plug /socket. Note the "TOP" inscription.



Prepare strain relief housing by snapping together upper and bottom part.

Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding

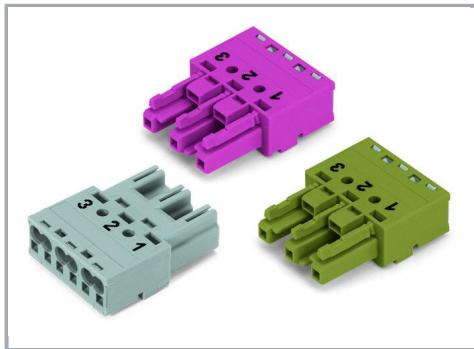


Simply cut off the coding pin from the socket.

Insert coding pin into plug (break first) until it engages.

Mismating protection

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

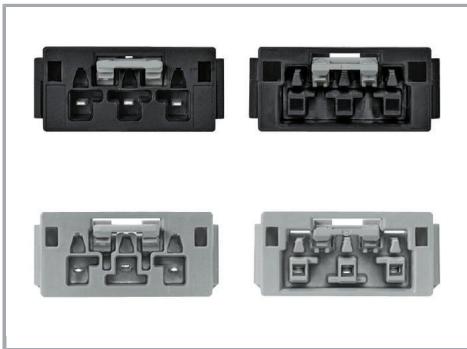


B-coded connectors with different colors can be plugged together.

Important note:

Different colors and/or pole markings are used for circuit identification.

Only connectors of the same color and same pole marking must be plugged together.



B-coded connectors (shown in gray) not only differ in color, but also in their design, making them incompatible with other coded connectors.



Easy circuit identification via different marking and colors

Product family

WINSTA® MIDI

[Show all products from the family](#)

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