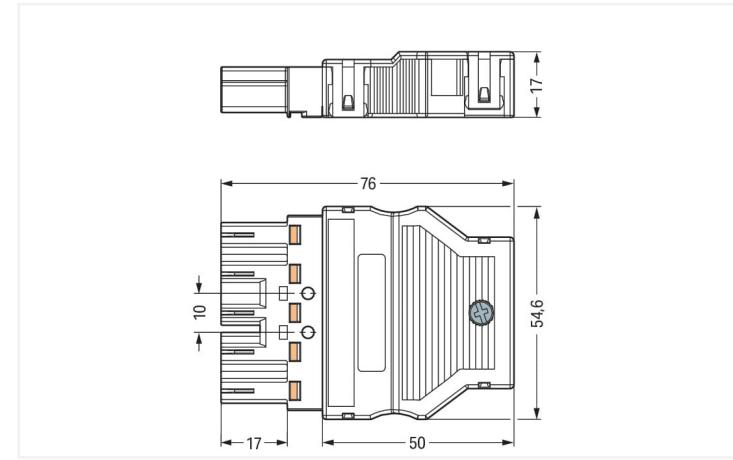
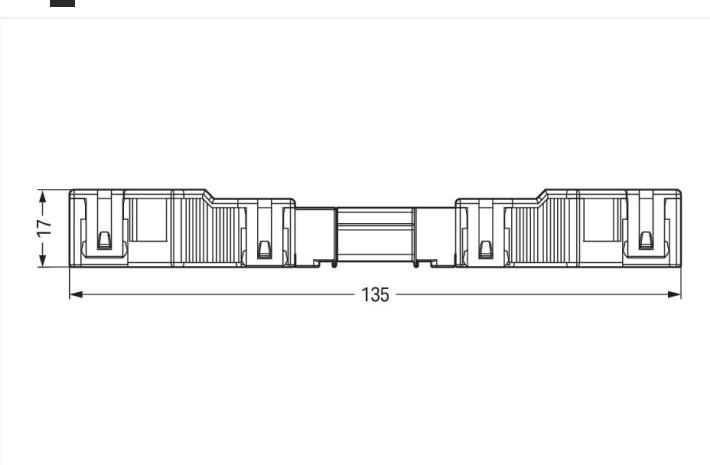




Color: black



Dimensions in mm



Dimensions in mm

Overall length when mated

Male connector/plug *WINSTA*® MIDI 5-pole

The *WINSTA*® MIDI male connector/plug with protection type IP20 is the pluggable solution for your use in control cabinets, on PCBs or for lighting connections. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to an enormous variety of requirements in seconds. 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 IP20 (When mated and secured with a strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas!)). That results in the fact that users' fingers will never come into contact with energised contact elements. The *WINSTA*® MIDI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. This pluggable installation connector can be employed for a voltage load of up to 25 A. Thus, it can also be used for high power loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in can be found in a variety of projects you can use for quick, easy, flexible, and secure electrical installation. The strip length is 55 mm.

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

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*® MIDI pluggable installation connector with protection against mismatching from WAGO makes the electrical installation of electrical components substantially easier.

- effective protection against mismatching
- pre-assembled versions
- with A coding for a large number of applications
- custom-engineered solutions
- rapid, structured electrical installation

## This item includes:

[Item No.: 770-505](#)

1

[Item No.: 770-215](#)

1

Strain relief housing; 5-pole; for 2 cables;  
9.0 ... 13.0 mm; 55 mm; blackPlug; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

## 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                 | 25 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 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

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

## Connection data

|                            |                      |
|----------------------------|----------------------|
| Connection points          | 10                   |
| Total number of potentials | 5                    |
| PE function                | Preceding PE contact |

## Connection 1

|  |  |
|--|--|
| Connection technology                                      | Push-in CAGE CLAMP®                          |
| Actuation type   | Operating tool<br>Push-in                    |
| Nominal cross-section                                      | 4 mm <sup>2</sup> / 12 AWG                   |
| Solid conductor  | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination                       | 1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG    |
| Stranded conductor   | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                                    | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Fine-stranded conductor; with insulated ferrule            | 0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Fine-stranded conductor; with uninsulated ferrule          | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with ferrule; push-in termination | 1.5 mm <sup>2</sup> / 16 AWG                 |
| Strip length   | 9 mm / 0.35 inches                           |
| Pole number  | 5  |
| Connectable sheathed cable diameter                        | 9 ... 13 mm                                  |
| Conductor entry direction to mating direction              | 0 °  |
| Strip length (outer insulation)                            | 55 mm  |

**Physical data**

|             |                        |
|-------------|------------------------|
| Pin spacing | 10 mm / 0.394 inches   |
| Width       | 54.6 mm / 2.15 inches  |
| Height      | 17 mm / 0.669 inches   |
| Depth       | 75.9 mm / 2.988 inches |

**Mechanical Data**

|   |  |
|---|--|
| Application                             | General mains applications   |
| Coding                                  | A  |
| Variable coding                         | Yes  |
| Marking                                 | L3 L2 L1 ⊕ N   |
| Potential marking                       | L3 L2 L1 ⊕ 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                         | 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 W/INSTA® 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         | 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                   | 0.713 MJ   |
| Weight                      | 29.7 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 8.0              | EC002560      |
| ETIM 7.0              | EC002560      |
| PU (SPU)              | 25 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4044918254441 |
| Customs tariff number | 85366990990   |

## Approvals / Certificates

### General approvals



### Approvals for marine applications



| Approval                                     | Standard  | Certificate Name | Approval   | Standard  | Certificate Name |
|--|-----------|------------------|--|-----------|------------------|
| CCA<br>DEKRA Certification B.V.              | EN 61535  | 71-123228        | ABS<br>American Bureau of Shipping               | -         | 19-HG1868589-PDA |
| CCA<br>DEKRA Certification B.V.              | IEC 61535 | NL-84761         | DNV GL<br>Det Norske Veritas, Germanischer Lloyd | -         | TAE00001Z6       |
| cURus<br>Underwriters Laboratories Inc.      | UL 1977   | E45171           | LR<br>Lloyds Register                            | IEC 61984 | LR22429487TA     |
| VDE<br>VDE Prüf- und Zertifizierungsinstitut | EN 61984  | 40002889         |  |           |                  |
| VDE<br>VDE Prüf- und Zertifizierungsinstitut | EN 61535  | 40029808         |  |           |                  |

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product  
Compliance 770-115

## Documentation

## Bid Text

|                            |            |                 |   |
|----------------------------|------------|-----------------|---|
| 770-115                    | 19.02.2019 | xml<br>3.01 KB  |  |
| 770-115                    | 08.06.2015 | doc<br>23.50 KB |  |
| ausschreiben.de<br>770-115 |            |                 |  |

## CAD/CAE-Data

|                      |                              |
|----------------------|------------------------------|
| CAD data             | CAE data                     |
| 2D/3D Models 770-115 | EPLAN Data Portal<br>770-115 |
|                      | WSCAD Universe<br>770-115    |
|                      | ZUKEN Portal 770-115         |

## 1 Compatible Products

## 1.1 System counterpart

## 1.1.1 Cable assembly

[Item No.: 771-9995/106-101](#)

pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; black

[Item No.: 771-9995/006-101](#)

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; black

## 1.1.2 Distribution box

[Item No.: 899-681/147-000](#)

Distribution box; 400 V + DALI; 2 inputs; 5 outputs; Cod. A, I; MINI, MIDI; white

[Item No.: 899-631/187-000](#)

Distribution box; Three-phase current (400 V); 1 input; 5 outputs; Cod. A; MIDI; black

[Item No.: 899-631/346-000](#)

Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 4 outputs; Cod. A; MIDI; black

[Item No.: 899-631/100-000](#)

Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; black

## 1.1.3 Distribution connector

[Item No.: 770-609](#)

3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black

[Item No.: 770-659](#)

3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white

[Item No.: 770-621](#)

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black

[Item No.: 770-622](#)

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

[Item No.: 770-611](#)

Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 2 outputs; with cable connection on the input side; black

[Item No.: 770-640](#)

Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; black

### 1.1.4 Female connector/socket

**Item No.: 770-705**

Snap-in socket; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

**Item No.: 770-705/009-000**

Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

**Item No.: 770-805/011-000**

Socket for PCBs; angled; 5-pole; Cod. A; black

**Item No.: 770-805**

Socket for PCBs; straight; 5-pole; Cod. A; black

**Item No.: 770-205**

Socket; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

**Item No.: 770-405**

Socket; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

**Item No.: 770-105**

Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

**Item No.: 770-305**

Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

### 1.1.5 Tap-off module

**Item No.: 772-262**

Tap-off module; for flat cable; 5 x 2.5 mm<sup>2</sup> + 2 x 1.5 mm<sup>2</sup>; 5-pole; Cod. A; with cable connection on the output side; black

## 1.2 Required Accessories

### 1.2.1 Locking system

#### 1.2.1.1 Locking system

**Item No.: 770-101**

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

**Item No.: 770-121**

Locking lever; for flying leads; for manual operation; white

**Item No.: 770-111**

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

**Item No.: 770-131**

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

## 1.3 Optional Accessories

### 1.3.1 Coding

#### 1.3.1.1 Coding

**Item No.: 770-401**

Coding pin; for plugs; Plastic; gray

### 1.3.2 Cover

#### 1.3.2.1 Cover

**Item No.: 770-360**

Lockout cap; for plugs; 5-pole; separable; yellow

**Item No.: 897-2005**

Protective cap; Type4; for sockets and plugs; PVC; red

### 1.3.3 Marking

### 1.3.3.1 Marker



[Item No.: 770-450/000-006](#)  
Marker card; Plastic; blue



[Item No.: 770-450/000-001](#)  
Marker card; Plastic; green



[Item No.: 770-450/000-012](#)  
Marker card; Plastic; orange



[Item No.: 770-450/000-005](#)  
Marker card; Plastic; red



[Item No.: 770-450](#)  
Marker card; Plastic; white



[Item No.: 770-450/000-002](#)  
Marker card; Plastic; yellow

### 1.3.4 Tool

#### 1.3.4.1 Operating tool



[Item No.: 210-719](#)  
Operating tool; Blade: 2.5 x 0.4 mm; with a  
partially insulated shaft

#### 1.3.4.2 Wiring aid



[Item No.: 770-100](#)  
Wiring aid; 2- to 5-pole; Plastic; orange

### Installation Notes

#### Conductor termination



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.

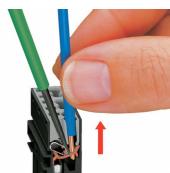


Insert the stripped solid conductor until it hits the backstop.



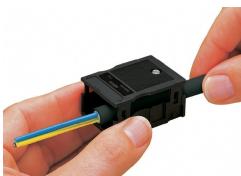
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

#### Conductor removal

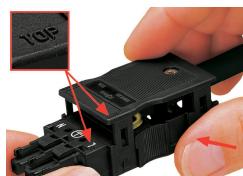


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

## 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).