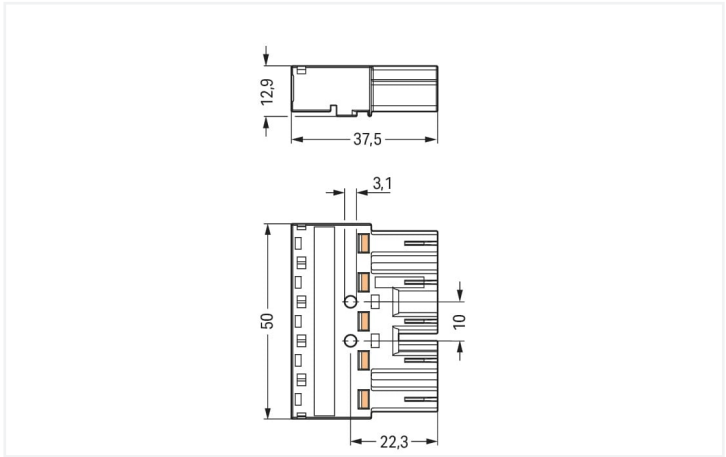




Color: ■ black



Dimensions in mm

Male connector/plug WINSTA® MIDI 5-pole

The WINSTA® MIDI male connector/plug with protection type IP20 allows installation of fine-stranded and solid conductors. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to many different requirements in seconds. The coding options reduce installation errors, allowing fast, maintenance-free wiring of all components. The pluggable installation connector offers touch-proof protection with live components 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!)). Standard mains applications for almost any domain of use can be implemented with WINSTA® MIDI pluggable installation connectors with A coding. Important parameters in the selection of a pluggable installation connector are the rated current and voltage: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is suitable for robust loads. Our WINSTA® MIDI product line achieves total flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it ensures error-free, time-saving installation and offers customization for meeting an enormous variety of installation requirements.

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

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and therefore faster, even more reliable, and error-free. Use of this pre-assembled system decreases assembly times and errors during installation at the construction site. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP20 from WAGO.

- protection against mismatching eliminates errors
- for automation controllers
- for any mains application
- exact dimensions
- fast, secure installation

| Electrical data      |       |                |     |    |
|----------------------|-------|----------------|-----|----|
| Ratings per          |       | IEC/EN 60664-1 |     |    |
| Overvoltage category |       | III            | III | II |
| Pollution degree     |       | 3              | 2   | 2  |
| Nominal voltage      | 400 V | -              | -   | -  |
| Rated surge voltage  | 6 kV  | -              | -   | -  |
| Rated current        | 25 A  | -              | -   | -  |
| Approvals per        |       | UL 1977        |     |    |
| Rated voltage        |       | 600 V          |     |    |
| Rated current        |       | 23 A           |     |    |



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

| Connection data            |                      |                                                            |                                  |
|----------------------------|----------------------|------------------------------------------------------------|----------------------------------|
| Connection points          | 5                    | <b>Connection 1</b>                                        |                                  |
| Total number of potentials | 5                    | Connection technology                                      | Push-in CAGE CLAMP®              |
| PE function                | Preceding PE contact | Actuation type                                             | Operating tool<br>Push-in        |
|                            |                      | Nominal cross-section                                      | 4 mm² / 12 AWG                   |
|                            |                      | Solid conductor                                            | 0.5 ... 4 mm² / 20 ... 12 AWG    |
|                            |                      | Solid conductor; push-in termination                       | 1.5 ... 4 mm² / 16 ... 12 AWG    |
|                            |                      | Stranded conductor                                         | 0.5 ... 2.5 mm² / 20 ... 14 AWG  |
|                            |                      | Fine-stranded conductor                                    | 0.5 ... 4 mm² / 20 ... 12 AWG    |
|                            |                      | Fine-stranded conductor; with insulated ferrule            | 0.25 ... 1.5 mm² / 20 ... 16 AWG |
|                            |                      | Fine-stranded conductor; with uninsulated ferrule          | 0.25 ... 2.5 mm² / 20 ... 14 AWG |
|                            |                      | Fine-stranded conductor; with ferrule; push-in termination | 1.5 mm² / 16 AWG                 |
|                            |                      | Strip length                                               | 9 mm / 0.35 inches               |
|                            |                      | Pole number                                                | 5                                |
|                            |                      | Conductor entry direction to mating direction              | 0 °                              |

| Physical data |                        |
|---------------|------------------------|
| Pin spacing   | 10 mm / 0.394 inches   |
| Width         | 50 mm / 1.969 inches   |
| Height        | 12.9 mm / 0.508 inches |
| Depth         | 37.5 mm / 1.476 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 <i>WINSTA</i> ® 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). |

### Material data

|                             |                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| Note (material data)        | <a href="https://www.wago.com/us/material-specifications">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                   | 0.376 MJ                                                                                                               |
| Weight                      | 16.4 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           |
| Country of origin     | DE            |
| GTIN                  | 4044918254717 |
| Customs tariff number | 85366990990   |



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

Approvals / Certificates

| General approvals                                                                                                                                                                                                                                                                                                                      |           |                  | Declarations of conformity and manufacturer's declarations |          |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|------------------------------------------------------------|----------|------------------|
|     |           |                  |                                                            |          |                  |
| Approval                                                                                                                                                                                                                                                                                                                               | Standard  | Certificate Name | Approval                                                   | Standard | Certificate Name |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                                                                                                        | EN 61535  | 71-123228        | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -        | -                |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                                                                                                        | IEC 61535 | NL -84761        |                                                            |          |                  |
| cURus<br>Underwriters Laboratories<br>Inc.                                                                                                                                                                                                                                                                                             | UL 1977   | E45171           |                                                            |          |                  |
| cURus<br>Underwriters Laboratories<br>Inc.                                                                                                                                                                                                                                                                                             | UL 1059   | E 45172          |                                                            |          |                  |
| VDE<br>VDE Prüf- und Zertifizie-<br>rungsinstitut                                                                                                                                                                                                                                                                                      | EN 61984  | 40002889         |                                                            |          |                  |

Approvals for marine applications

|    |           |                  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|--|--|--|
| Approval                                                                                                                                                                                                                                                   | Standard  | Certificate Name |  |  |  |
| ABS<br>American Bureau of Ship-<br>ping                                                                                                                                                                                                                    | -         | 19-HG1868589-PDA |  |  |  |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd                                                                                                                                                                                                      | -         | TAE00001Z6       |  |  |  |
| LR<br>Lloyds Register                                                                                                                                                                                                                                      | IEC 61984 | LR22429487TA     |  |  |  |

Downloads

| Environmental Product Compliance            |                                                                                     |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| Compliance Search                           |                                                                                     |
| Environmental Product<br>Compliance 770-415 |  |



Documentation

| Bid Text |            |                 |                   |
|----------|------------|-----------------|-------------------|
| 770-415  | 19.02.2019 | xml<br>2.96 KB  | <a href="#">↓</a> |
| 770-415  | 08.06.2015 | doc<br>23.50 KB | <a href="#">↓</a> |

CAD/CAE-Data

| CAD data             |                   | CAE data                  |                   |
|----------------------|-------------------|---------------------------|-------------------|
| 2D/3D Models 770-415 | <a href="#">↓</a> | EPLAN Data Portal 770-415 | <a href="#">↓</a> |
|                      |                   | WSCAD Universe 770-415    | <a href="#">↓</a> |
|                      |                   | ZUKEN Portal 770-415      | <a href="#">↓</a> |

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 mm²; 1 m; 1,50 mm²; black

**Item No.: 771-9995/006-101**  
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 box



**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 mm²; black



**Item No.: 770-705/009-000**  
Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm²; 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 mm²; black



**Item No.: 770-405**  
Socket; 5-pole; Cod. A; 4,00 mm²; black



**Item No.: 770-105**  
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black



**Item No.: 770-305**  
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black

1.1.5 Tap-off module



**Item No.: 772-262**  
Tap-off module; for flat cable; 5 x 2.5 mm² + 2 x 1.5 mm²; 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 Installation

1.3.3.1 Mounting accessories



Item No.: 770-321  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black



Item No.: 770-341  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white



Item No.: 770-320  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black



Item No.: 770-340  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; white

1.3.4 Marking

1.3.4.1 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

1.3.5 Tool

1.3.5.1 Operating tool



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

1.3.5.2 Wiring aid



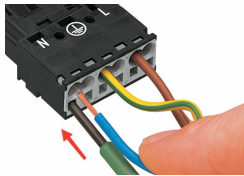
Item No.: 770-100  
Wiring aid; 2- to 5-pole; Plastic; orange

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.

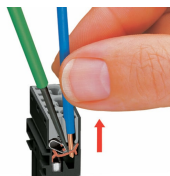


Insert the stripped solid conductor until it hits the backstop.



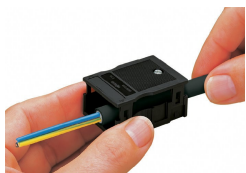
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

## Conductor removal

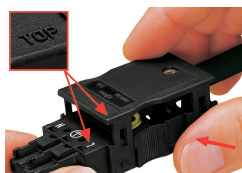


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

## 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).