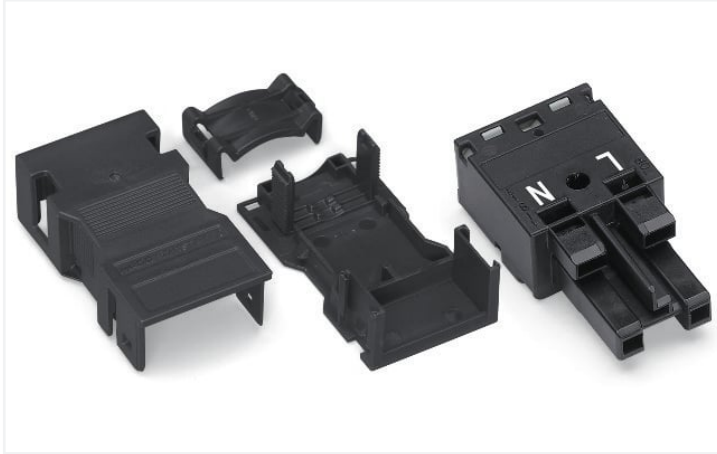


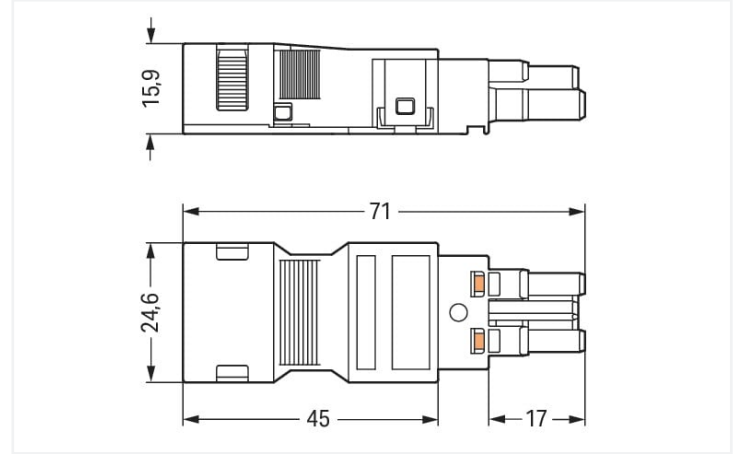
## Data Sheet | Item Number: 770-102/041-000

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

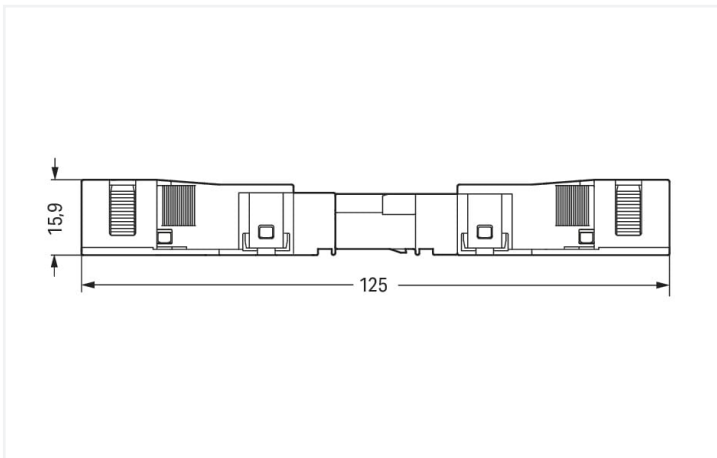
<https://www.wago.com/770-102/041-000>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

### Female connector/socket WINSTA® MIDI with protection against mismatching

For power and signal transmission: The WINSTA® MIDI female connector/socket with protection against mismatching. Our pluggable installation connectors with spring pressure connection technology work without screw connections. They allow resource-efficient, error-free installation in numerous possible uses. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. The pluggable installation connector offers protection against contact 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!)). The WINSTA® MIDI pluggable installation connector with A coding in white or black is usually used for general mains applications in power distribution. The rated current and voltage are important criteria for selecting a pluggable installation connector: They tell us about the product's domains of use. This product has a current rating of 25 A – so it is suitable for powerful loads. The WINSTA® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates exemplary electrification. Thanks to the integrated test slot, it is possible to check connections even when they are plugged in. This saves time, labor, and money. The strip length is 35 mm.

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

WINSTA® is the pluggable connection system that is optimally tailored to the strict requirements of electrical installation. It ensures error-free installation of cables and components, quickly and reliably. Choose durability and quality – the WINSTA® MIDI pluggable installation connector with protection against mismatching from WAGO makes the electrical installation of electrical components significantly easier.

- effective protection against mismatching
- pre-assembled versions
- with A coding for a large number of uses
- ready for immediate use
- rapid, structured electrical installation



This item includes:



|                                                      |   |                                                                                              |   |
|------------------------------------------------------|---|----------------------------------------------------------------------------------------------|---|
| Item No.: 770-202                                    | 1 | Item No.: 770-502/041-000                                                                    | 1 |
| Socket; 2-pole; Cod. A; 4,00 mm <sup>2</sup> ; black |   | Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black |   |

Electrical data

| Ratings per          |  |  |  | IEC/EN 60664-1 |     | Approvals per |  | UL 1977       |       |
|----------------------|--|--|--|----------------|-----|---------------|--|---------------|-------|
| Overvoltage category |  |  |  | III            | III | II            |  | Rated voltage | 600 V |
| Pollution degree     |  |  |  | 3              | 2   | 2             |  | Rated current | 23 A  |
| Nominal voltage      |  |  |  | 250 V          | -   | -             |  |               |       |
| Rated surge voltage  |  |  |  | 4 kV           | -   | -             |  |               |       |
| Rated current        |  |  |  | 25 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          | 4 | Connection 1                                               |                                              |
| Total number of potentials | 2 | 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                                                | 2                                            |
|                            |   | Connectable sheathed cable diameter                        | 7 ... 10.5 mm                                |
|                            |   | Conductor entry direction to mating direction              | 0 °                                          |
|                            |   | Strip length (outer insulation)                            | 35 mm                                        |

## Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 10 mm / 0.394 inches   |
| Width       | 24.6 mm / 0.969 inches |
| Height      | 15.9 mm / 0.626 inches |
| Depth       | 71 mm / 2.795 inches   |

## Mechanical data

|                                         |                                                                                                                                                        |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application                             | General mains applications                                                                                                                             |
| Coding                                  | A                                                                                                                                                      |
| Variable coding                         | No                                                                                                                                                     |
| Marking                                 | L N                                                                                                                                                    |
| Potential marking                       | L 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) | 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:<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="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                   | 0.393 MJ                                                                                                               |
| Weight                      | 13 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       |               |
|-----------------------|---------------|
| 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                  | 4050821117919 |
| 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                                                   | Certificate Name |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | EN 61535  | EU-Declaration of Confor-<br>mity<br>WAGO GmbH & Co. KG    | -                |
| CCA<br>DEKRA Certification B.V.                                                                                                                                                                                                                            | IEC 61535 |                                                            | -                |
| cURus<br>Underwriters Laboratories<br>Inc.                                                                                                                                                                                                                 | UL 1977   |                                                            | -                |
| cURus<br>Underwriters Laboratories<br>Inc.                                                                                                                                                                                                                 | UL 1059   |                                                            | -                |

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 Compliance |  |  | ↓ |
| 770-102/041-000                  |  |  |   |

Documentation

| Bid Text        |            |                 |   |
|-----------------|------------|-----------------|---|
| 770-102/041-000 | 19.02.2019 | xml<br>3.02 KB  | ↓ |
| 770-102/041-000 | 08.06.2015 | doc<br>23.50 KB | ↓ |

CAD/CAE-Data

| CAD data        |   |
|-----------------|---|
| 2D/3D Models    |   |
| 770-102/041-000 | ↓ |

| CAE data        |   |
|-----------------|---|
| WSCAD Universe  |   |
| 770-102/041-000 | ↓ |
| ZUKEN Portal    |   |
| 770-102/041-000 | ↓ |

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



[Item No.: 771-8992/206-101](#)  
pre-assembled connecting cable; Eca; Plug/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; 1,50 mm²; black



[Item No.: 771-8992/006-101](#)  
pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution connector



[Item No.: 770-1634](#)  
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black



[Item No.: 770-1636](#)  
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black



[Item No.: 770-1606](#)  
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



[Item No.: 770-1615](#)  
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black



1.1.3 Male connector/plug



**Item No.: 770-212**  
Plug; 2-pole; Cod. A; 4,00 mm²; black

**Item No.: 770-112/041-000**  
Plug; with strain relief housing; 2-pole; Cod. A; 4,00 mm²; 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 Cover

1.3.1.1 Cover



**Item No.: 770-201**  
Lockout cap; 12-pole, separable; for sockets; Plastic; black

**Item No.: 770-221**  
Lockout cap; 12-pole, separable; for sockets; Plastic; white

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

1.3.2 Tool

1.3.2.1 Operating tool

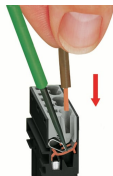
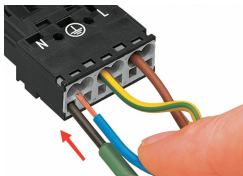
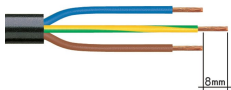


**Item No.: 770-382**  
Operating tool; 2-way; green

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

Installation Notes

Conductor termination



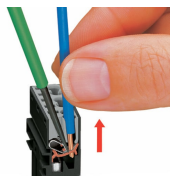
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

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.

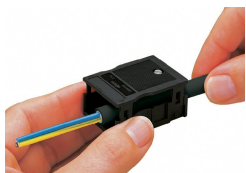
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

## Conductor removal

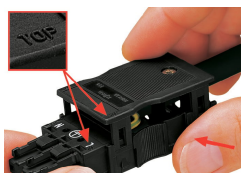


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

## 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).