

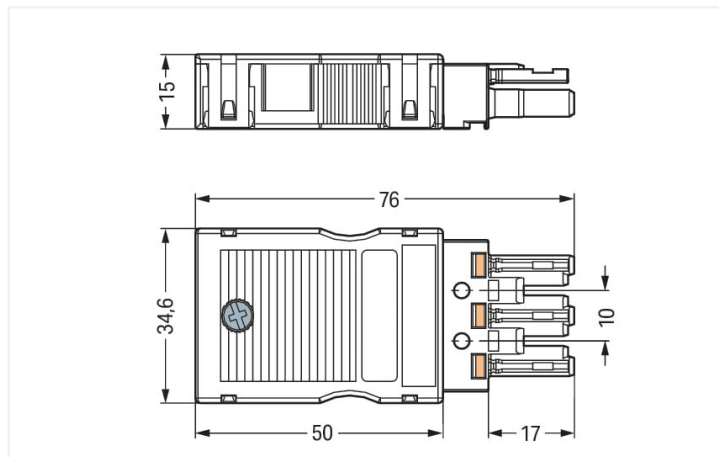
Data Sheet | Item Number: 770-103

Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black

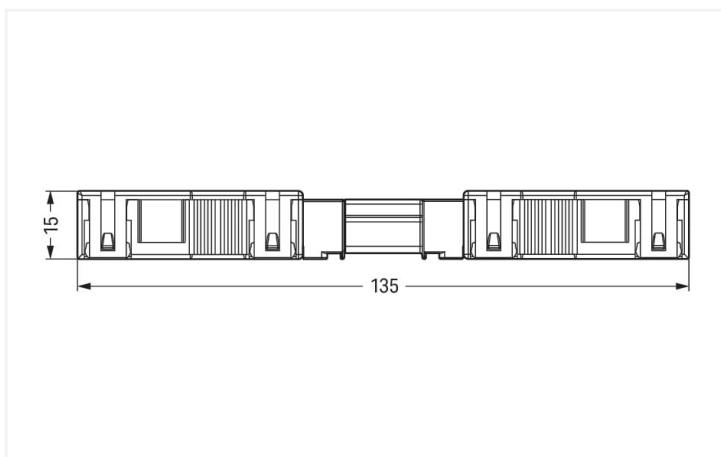
<https://www.wago.com/770-103>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Female connector/socket WINSTA® MIDI A coding

For signal and power transmission: The WINSTA® MIDI female connector/socket rated current 25 A. The pluggable installation connectors with spring pressure connection technology function entirely without screw connections. They allow flexible, error-free installation in a large number of applications. The coding options reduce installation errors, allowing fast, secure wiring of all components. Thanks to the color coding and mechanical A coding of WINSTA® MIDI pluggable installation connectors, you can clearly distinguish different circuits. 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 also suitable for robust 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. That saves time and reduces installation labor and costs. A range up to 55 mm can be used for the strip length.

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

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP2XC from WAGO.

- effective protection against mismatching
- pre-assembled versions
- suitable for any application
- ready to install and use immediately
- quick replacement of defective units during ongoing operation

This item includes:



Item No.: 770-503

1

Item No.: 770-203

1

Strain relief housing; 3-pole; for 2 cables;
8.0 ... 11.5 mm; 55 mm; blackSocket; 3-pole; Cod. A; 4,00 mm²; black

Electrical data

| Ratings per | IEC/EN 60664-1 | | | Approvals per | UL 1977 |
|----------------------|----------------|-----|----|---------------|---------|
| Overtoltage 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 approx. 0.25 mΩ contact transition plug/ socket |
|----------------------------|--|

Connection data

| | | | |
|----------------------------|---|--|--|
| Connection points | 6 | Connection 1 | |
| Total number of potentials | 3 | Connection technology | Push-in CAGE CLAMP® |
| Number of test slots | 3 | 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 |
| | | Connectable sheathed cable diameter | 8 ... 11.5 mm |
| | | Conductor entry direction to mating direction | 0° |
| | | Strip length (outer insulation) | 55 mm |

Physical data

| | |
|-------------|------------------------|
| Pin spacing | 10 mm / 0.394 inches |
| Width | 34.6 mm / 1.362 inches |
| Height | 15 mm / 0.591 inches |
| Depth | 76 mm / 2.992 inches |

Mechanical data

| | |
|---|---|
| Application | General mains applications |
| Coding | A |
| Variable coding | Yes |
| 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 | IP2XC; 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 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). |
| Strain relief | Strain relief housing |

Material data

| | |
|-----------------------------|--|
| Note (material data) | Information on material specifications can be found here |
| 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 | 0.443 MJ |
| Connector color | black |
| Strain relief color | black |
| Weight | 20 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 | 4044918252096 |
| 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 DEKRA Certification B.V. | EN 61535 | 71-123228 | EU-Declaration of Confor- mity WAGO GmbH & Co. KG | - | - |
| CCA DEKRA Certification B.V. | IEC 61535 | NL -84761 | | | |
| cURus Underwriters Laboratories Inc. | UL 1977 | E45171 | | | |
| cURus Underwriters Laboratories Inc. | UL 1059 | E 45172 | | | |
| VDE VDE Prüf- und Zertifizie- rungsinstitut | EN 61984 | 40002889 | | | |
| VDE VDE Prüf- und Zertifizie- rungsinstitut | EN 61535 | 40029808 | | | |

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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-103



Documentation

Bid Text

| | | | |
|----------------------------|------------|-----------------|--|
| 770-103 | 19.02.2019 | xml 3.01 KB | |
| 770-103 | 08.06.2015 | doc 23.50 KB | |
| ausschreiben.de 770-103 | | | |

CAD/CAE-Data

CAD data

2D/3D Models 770-103



CAE data

EPLAN Data Portal
770-103



WSCAD Universe
770-103



ZUKEN Portal 770-103



1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9993/206-101

pre-assembled connecting cable; Eca; Plug/open-ended; 3-pole; Cod. A; H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; black

Item No.: 771-9993/006-101

pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution box



Item No.: 899-631/181-000

Distribution box; 230 V + DALI; 2 inputs; 6 outputs; Cod. A, I; MINI, MIDI; black



Item No.: 899-631/405-000

Distribution box; 230 V + SMI; 2 inputs; 6 outputs; Cod. A, B; MINI, MIDI; black



Item No.: 899-631/315-000

Distribution box; Cable and device protection; 1 input; 4 outputs; Cod. A; MIDI; black



Item No.: 899-631/305-000

Distribution box; Crossover switching; 1 input; 5 outputs; Cod. A, B, S; MIDI; black



Item No.: 899-631/309-000

Distribution box; Motion/presence detector; 1 input; 3 outputs; Cod. A, S; MIDI; black



Item No.: 899-631/180-000

Distribution box; Motion/presence detector; 1 input; 5 outputs; Cod. A; MIDI; black



Item No.: 899-632/102-000

Distribution box; Relay switching; 2 inputs; 1 output; Cod. A, B; MINI, MIDI; black



Item No.: 899-631/386-000

Distribution box; Series switching; 1 input; 7 outputs; Cod. A, S; MIDI; black

1.1.2 Distribution box



Item No.: 899-631/477-000
Distribution box; Single-phase current (230 V); 1 input; 11 outputs; Cod. A; MIDI; black



Item No.: 899-631/334-000
Distribution box; Single-phase current (230 V); 1 input; 13 outputs; Cod. A; MIDI; black



Item No.: 899-631/476-000
Distribution box; Single-phase current (230 V); 1 input; 4 outputs; Cod. A; MIDI; black



Item No.: 899-631/104-000
Distribution box; Single-phase current (230 V); 1 input; 7 outputs; Cod. A; MIDI; black



Item No.: 899-631/311-000
Distribution box; Single-phase current (230 V); 2 inputs; 6 outputs; Cod. A, P; MIDI; black



Item No.: 899-631/327-000
Distribution box; Single-phase current (230 V); 2 inputs; 6 outputs; Cod. A; MIDI; black



Item No.: 899-631/363-000
Distribution box; Single-pole switch circuit; 1 input; 5 outputs; Cod. A, S; MIDI; black



Item No.: 899-631/478-000
Distribution box; Single-pole switch circuit; 1 input; 7 outputs; Cod. A, S; MIDI; black



Item No.: 899-632/101-000
Distribution box; Surge switch circuit; 1 input; 4 outputs; Cod. A, S; MIDI; black



Item No.: 899-632/138-000
Distribution box; Surge switch circuit; 1 input; 4 outputs; Cod. A, S; MIDI; black



Item No.: 899-632/103-000
Distribution box; Surge switch circuit; 2 inputs; 2 outputs; Cod. A; MIDI; black



Item No.: 899-631/308-000
Distribution box; Two-way circuit; 1 input; 5 outputs; Cod. A, S; MIDI; black



Item No.: 899-631/189-000
Distribution box; Two-way circuit; 1 input; 7 outputs; Cod. A, S; MIDI; black

1.1.3 Distribution connector



Item No.: 770-607
3-way distribution connector; 3-pole; Cod. A; 1 input; 3 outputs; black



Item No.: 770-608
5-way distribution connector; 3-pole; Cod. A; 1 input; 5 outputs; outputs on both sides; black



Item No.: 770-638
Distribution connector for switches; Single-pole and throttle two-way circuit; 3-pole; Cod. A/S; 1 input; 5 outputs; black



Item No.: 770-637
Distribution connector for switches; Single-pole switch and series circuit; 3-pole; Cod. A/S; 1 input; 5 outputs; black



Item No.: 770-633
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



Item No.: 770-635
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; black



Item No.: 770-634
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black



Item No.: 770-636
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black



Item No.: 770-606
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



Item No.: 770-615
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

1.1.4 Male connector/plug



Item No.: 770-813/011-000
Plug for PCBs; angled; 3-pole; Cod. A; black



Item No.: 770-813
Plug for PCBs; straight; 3-pole; Cod. A; black



Item No.: 770-213
Plug; 3-pole; Cod. A; 4,00 mm²; black



Item No.: 770-213/002-000
Plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm²; black



Item No.: 770-113
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black



Item No.: 770-213/035-000
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black



Item No.: 770-713
Snap-in plug; 3-pole; Cod. A; 4,00 mm²; black



Item No.: 770-713/007-000
Snap-in plug; with direct ground contact; 3-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

1.3.2 Marking

1.3.2.1 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

1.3.3 Tool

1.3.3.1 Operating tool



Item No.: 770-383

Operating tool; 3-way; green



Item No.: 210-719

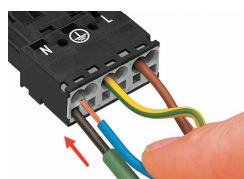
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

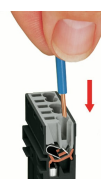
Conductor termination



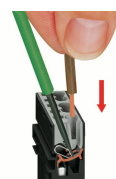
- Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- Strip length = 9 mm
- Extended ground conductor = 8 mm



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.

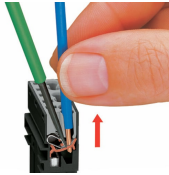


Insert the stripped solid conductor until it hits the backstop.



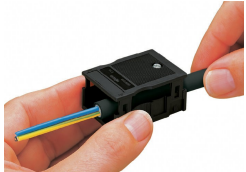
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

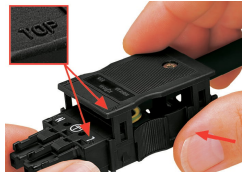


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

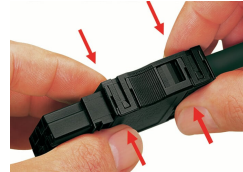
Installation



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.

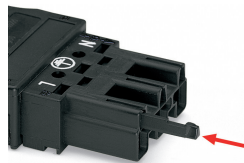


Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding



Simply cut off the coding pin from the socket.



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

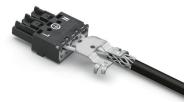
Shield termination



Connector with shield termination



Apply the shield to the sheathed cable.
Strip length, outer insulation = 55 mm
Shield length = 10 mm



Push the shield connecting plate into the connector until fully inserted.



First insert the wired connector into a strain relief housing, then snap cover and tighten screw.