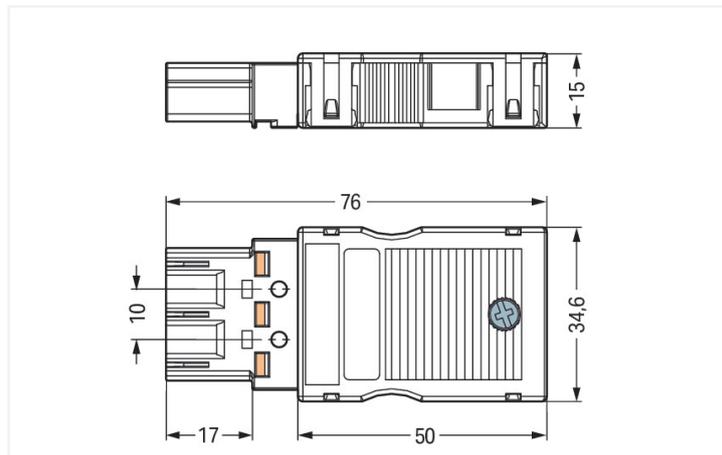


## Data Sheet | Item Number: 770-113

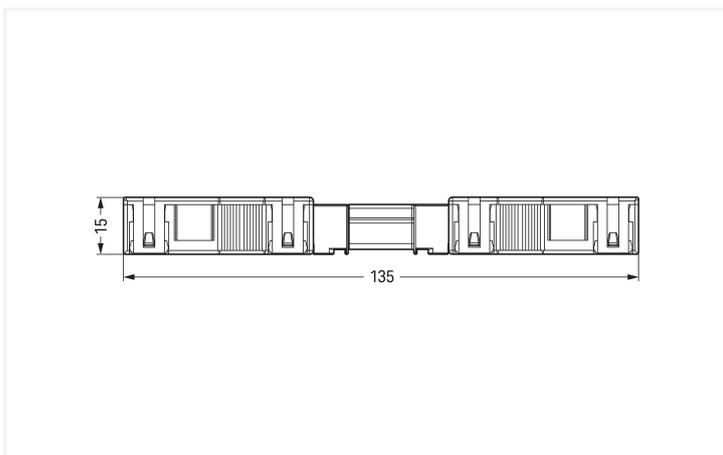
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; black

<https://www.wago.com/770-113>



Color: ■ black

Dimensions in mm



Dimensions in mm  
Overall length when mated

### Male connector/plug WINSTA® MIDI 3-pole

Use effective pluggable connections instead of laborious screw connections: With the WINSTA® MIDI male connector/plug A coding. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to an enormous variety of requirements in seconds. For greater protection in electrical installations, the pluggable installation connector is equipped with mechanical 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!)). Thanks to the color coding and mechanical A coding of WINSTA® MIDI pluggable installation connectors, you can clearly distinguish different circuits. This pluggable installation connector can be used for electrical currents up to 25 A. Thus the product is ideally suitable for high power 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. 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 is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and therefore more efficient, more reliable, and error-free. Use of this pre-assembled system decreases assembly times and installation errors at the construction site. Choose quality and durability – with strain relief hosting from WAGO makes the electrical installation of electrical components substantially easier.

- protection against mismatching eliminates errors

- simple circuits
- with A coding for use in a large number of general mains applications
- ready for immediate use
- fast, secure installation

**This item includes:**



Item No.: [770-503](#)

1

Item No.: [770-213](#)

1

Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black

Plug; 3-pole; Cod. A; black

**Notes**

General safety information

**NOTICE: Observe installation and safety instructions!**

- Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden!
- Nicht unter Spannung/Last installieren!
- Nur für bestimmungsgemäßen Gebrauch einsetzen!
- Nationale Vorschriften/Normen/Richtlinien beachten!
- Technische Daten der Produkte beachten!
- Auf die richtige Polbelegung achten!
- Keine beschädigten/verschmutzten Komponenten verwenden!
- Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!
- Leiter bis zum Anschlag einführen!
- Nur mit Verriegelungsklinke und Zugentlastung verwenden!
- Originalzubehör verwenden!

**To be sold only with installation instructions!**

**Electrical data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	-	-
Rated impulse withstand voltage	4 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 approx. 0.25 mΩ contact transition plug/ socket
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**Connection Data**

Clamping units	6
Total number of potentials	3
PE function	Preceding PE contact

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool 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

### Connection 1

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

Use	General mains applications
Coding	A
Variable coding	Yes
Marking	N ⊕ L
Potential marking	N ⊕ L
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!)
Screw tightening torque	0.5 Nm

### 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).
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 (main housing)	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	0.46 MJ

### Material data

Connector color	black
Strain relief color	black
Weight	19.8 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)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918254083
Customs tariff number	85366990990

### Product Classification

UNSPSC	39121402
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

### Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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### Approvals / Certificates

#### General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61535	71-123228
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

#### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	24-0095977-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 770-113 <a href="#">↓</a>

Documentation

Bid Text			
770-113	19.02.2019	xml 3.01 KB	<a href="#">↓</a>
770-113	08.06.2015	doc 23.50 KB	<a href="#">↓</a>
ausschreiben.de 770-113			<a href="#">↓</a>

CAD/CAE-Data

CAD data
2D/3D Models 770-113 <a href="#">↓</a>

CAE data
EPLAN Data Portal 770-113 <a href="#">↓</a>
WSCAD Universe 770-113 <a href="#">↓</a>
ZUKEN Portal 770-113 <a href="#">↓</a>

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



**Item No.: 771-9993/106-101**  
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; H05VV-F 3G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; black

**Item No.: 771-9993/006-101**  
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; H05VV-F 3G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; 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



**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.: 899-631/450-000**  
Distribution box; supply cable entry; 6 outputs; Cod. A; 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.: 899-631/346-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 4 outputs; Cod. A; MIDI; black



**Item No.: 899-631/149-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 6 outputs; Cod. A; MIDI, MAXI; black



**Item No.: 899-631/105-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 6 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



**Item No.: 899-631/302-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 2 inputs; 6 outputs; Cod. A, P; MIDI; black



**Item No.: 899-631/338-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); supply cable entry; 1 input; 6 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

**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.: 770-612**  
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.: 770-703**  
Snap-in socket; 3-pole; Cod. A; black



**Item No.: 770-703/009-000**  
Snap-in socket; with protruding mating face; 3-pole; Cod. A; black



**Item No.: 770-803/011-000**  
Socket for PCBs; angled; 3-pole; Cod. A; black



**Item No.: 770-803**  
Socket for PCBs; straight; 3-pole; Cod. A; black



**Item No.: 770-203**  
Socket; 3-pole; Cod. A; black



**Item No.: 770-103**  
Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; black



**Item No.: 770-203/035-000**  
Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; black

### 1.1.5 Tap-off module



**Item No.: 772-263**  
Tap-off module; for flat cable; 5 x 2.5 mm<sup>2</sup> + 2 x 1.5 mm<sup>2</sup>; 3-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

#### 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.: 770-383**

Operating tool; 3-way; green

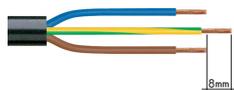


**Item No.: 210-719**

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

### Installation Notes

#### Conductor termination



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.

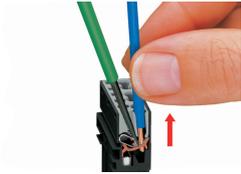


Insert the stripped solid conductor until it hits the backstop.



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.

### 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.