

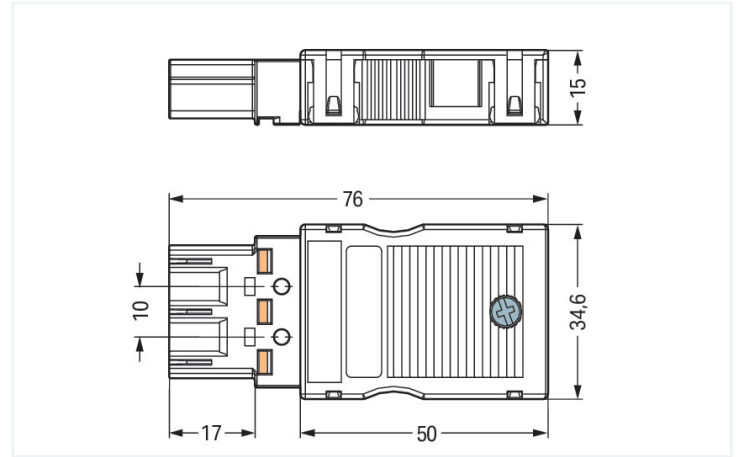
## Data Sheet | Item Number: 770-113

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

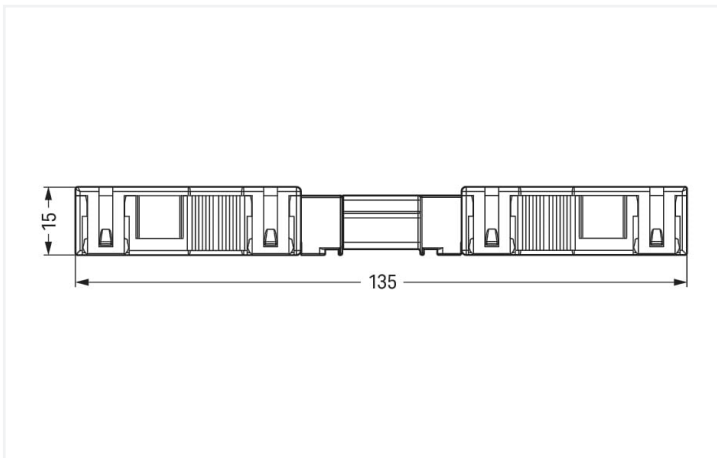
<https://www.wago.com/770-113>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Male connector/plug *WINSTA*® MIDI rated current 25 A

The *WINSTA*® MIDI male connector/plug 3-pole is the pluggable solution for your use in control cabinets, on PCBs or for lighting connections. WAGO pluggable installation connectors are used when specifications repeat or are planned on a specific pattern, for example for installing grid lighting or flush-mount lighting. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. 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!)). This means that users' fingers will never come into contact with electrified elements. General mains applications for almost any domain of use can be realised with *WINSTA*® MIDI pluggable installation connectors with A coding. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is also suitable for high power loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates precise electrification. Due to the included test slot, it is possible to check connections even when they are plugged in. That saves time and reduces installation labor and costs. The strip length is 55 mm.

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 significantly reduces the need for servicing and lowers costs. Choose quality and durability – the *WINSTA*® MIDI pluggable installation connector with strain relief hosting from WAGO makes the installation of electrical components visibly easier.

- protection against mismating eliminates errors
- pre-assembled versions
- suitable for any application
- ready to install and use immediately
- convenient installation and commissioning



This item includes:



<a href="#">Item No.: 770-503</a>	1	<a href="#">Item No.: 770-213</a>	1
Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black		Plug; 3-pole; Cod. A; 4,00 mm <sup>2</sup> ; 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 approx. 0.25 mΩ contact transition plug/ socket
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Connection data

Connection points	6	<b>Connection 1</b>	
Total number of potentials	3	Connection technology	Push-in CAGE CLAMP®
PE function	Preceding PE contact	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
		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	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!)

## 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="https://www.wago.com/us/material-specifications" href="_blank">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	0.484 MJ
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)	
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	4044918254083	
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
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 770-113			

Documentation			
Bid Text			
770-113	19.02.2019	xml 3.01 KB	
770-113	08.06.2015	doc 23.50 KB	
ausschreiben.de 770-113			

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 770-113	EPLAN Data Portal 770-113
	WSCAD Universe 770-113
	ZUKEN Portal 770-113

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			
<a href="#">Item No.: 899-631/181-000</a> Distribution box; 230 V + DALI; 2 inputs; 6 outputs; Cod. A, I; MINI, MIDI; black	<a href="#">Item No.: 899-631/405-000</a> Distribution box; 230 V + SMI; 2 inputs; 6 outputs; Cod. A, B; MINI, MIDI; black	<a href="#">Item No.: 899-631/315-000</a> Distribution box; Cable and device protection; 1 input; 4 outputs; Cod. A; MIDI; black	<a href="#">Item No.: 899-631/305-000</a> Distribution box; Crossover switching; 1 input; 5 outputs; Cod. A, B, S; MIDI; black
<a href="#">Item No.: 899-631/309-000</a> Distribution box; Motion/presence detector; 1 input; 3 outputs; Cod. A, S; MIDI; black	<a href="#">Item No.: 899-631/180-000</a> Distribution box; Motion/presence detector; 1 input; 5 outputs; Cod. A; MIDI; black	<a href="#">Item No.: 899-632/102-000</a> Distribution box; Relay switching; 2 inputs; 1 output; Cod. A, B; MINI, MIDI	<a href="#">Item No.: 899-631/386-000</a> Distribution box; Series switching; 1 input; 7 outputs; Cod. A, S; MIDI; black
<a href="#">Item No.: 899-631/477-000</a> Distribution box; Single-phase current (230 V); 1 input; 11 outputs; Cod. A; MIDI	<a href="#">Item No.: 899-631/334-000</a> Distribution box; Single-phase current (230 V); 1 input; 13 outputs; Cod. A; MIDI; black	<a href="#">Item No.: 899-631/476-000</a> Distribution box; Single-phase current (230 V); 1 input; 4 outputs; Cod. A; MIDI	<a href="#">Item No.: 899-631/104-000</a> Distribution box; Single-phase current (230 V); 1 input; 7 outputs; Cod. A; MIDI; black



1.1.2 Distribution box



**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



**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



**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.: 770-640**  
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; 4,00 mm<sup>2</sup>; black



**Item No.: 770-703/009-000**  
Snap-in socket; with protruding mating face; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; 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; 4,00 mm<sup>2</sup>; 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



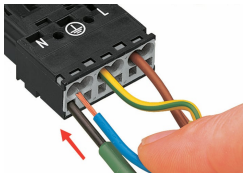
Item No.: 210-719  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

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.

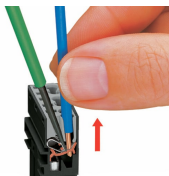


Insert the stripped solid conductor until it hits the backstop.



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

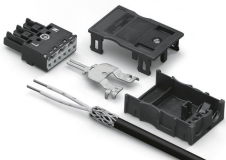


Simply cut off the coding pin from the socket.



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.