

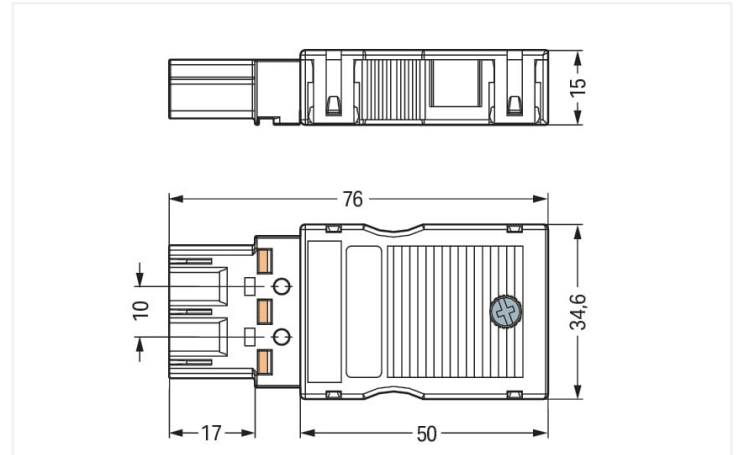
Data Sheet | Item Number: 770-113

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

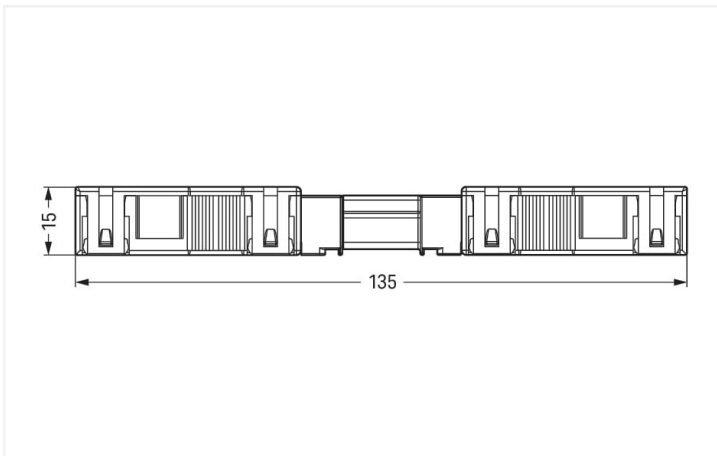
<https://www.wago.com/770-113>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Male connector/plug WINSTA® MIDI with protection type IP20

For signal and power transmission: The WINSTA® MIDI male connector/plug with protection against mismatching. The pluggable installation connectors with spring pressure connection technology work completely without screw connections. They allow flexible, error-free installation in a large number of 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 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!)). The WINSTA® MIDI pluggable installation connector with A coding in white or black is usually used for general mains applications in power distribution. This pluggable installation connector can be used for a current load of up to 25 A. Thus, it can also be used for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in a broad range of individual products you can use for quick, easy, flexible, and secure electrical installation. 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 is perfectly tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and thus faster, even more reliable, and error-free. Use of this pre-assembled system reduces assembly times and installation errors 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 marking from WAGO.

- protection against mismatching eliminates errors
- pre-assembled versions
- with A coding for use in many general mains applications
- ready to install and use immediately
- quick replacement of defective units during ongoing operation



This item includes:



Item No.: 770-503	1	Item No.: 770-213	1
Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black		Plug; 3-pole; Cod. A; 4,00 mm²; 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	Connection 1	
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 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	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)	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	0.484 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	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				
2D/3D Models 770-113				
CAE data				
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 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.: 899-631/450-000 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.: 770-640 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 mm²; black	Item No.: 770-703/009-000 Snap-in socket; with protruding mating face; 3-pole; Cod. A; 4,00 mm²; 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 mm²; black	Item No.: 770-103 Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black	Item No.: 770-203/035-000 Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black	



1.1.5 Tap-off module



Item No.: 772-263
Tap-off module; for flat cable; 5 x 2.5 mm² + 2 x 1.5 mm²; 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



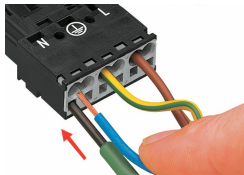
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

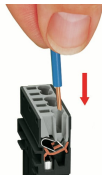
Conductor termination



- 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.

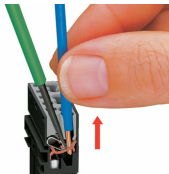


Insert the stripped solid conductor until it hits the backstop.



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.

