

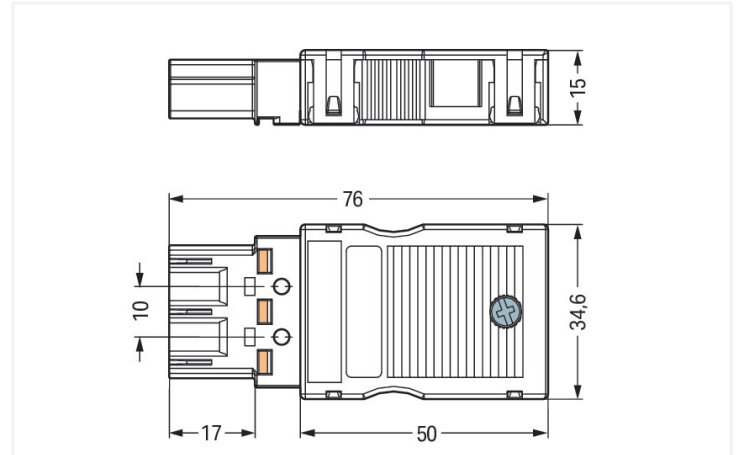
Data Sheet | Item Number: 770-113

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

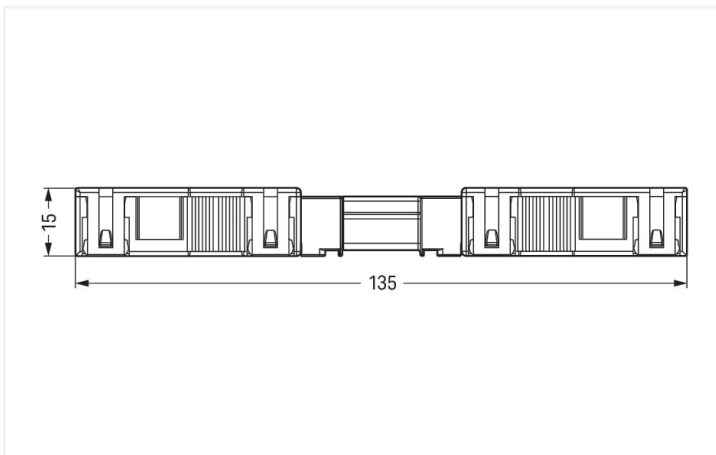
<https://www.wago.com/770-113>



Color:  black



Dimensions in mm



Dimensions in mm

Overall length when mated

Male connector/plug **WINSTA®** MIDI 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 mismatching. 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 housing from WAGO makes the installation of electrical components visibly easier.

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



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 mm ² ; black	

Electrical data

Ratings per IEC/EN		Ratings per UL 1977	
Ratings per	IEC/EN 60664-1	Note for the US market	Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 16 A and voltages up to 600 V. For further information, please contact your local sales office.
Nominal voltage (III/3)	250 V		
Rated impulse voltage (III/3)	4 kV		
Rated current	25 A		
Legend (ratings)	(III / 3) $\triangleq$ Overvoltage category III / Pollution degree 3	Rated voltage (UL 1977)	600 V
		Rated current UL 1977	23 A

General

Note on contact resistance	approx. 1 m Ω of contact resistance approx. 0.25 m Ω contact transition plug/ socket
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Connection data

Connection data		Connection 1	
Connection points	6	Connection technology	Push-in CAGE CLAMP®
Total number of potentials	3	Actuation type	Operating tool Push-in
PE function	Preceding PE contact	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	75.9 mm / 2.988 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 <i>W/INSTA</i> ® 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	0.466 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

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
VDE VDE Prüf- und Zertifizierungsinstitut	EN 61984	40002889
VDE VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	19-HG1868589-PDA
DNV GL Det Norske Veritas, Germanischer 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 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



[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



[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



[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

1.1.2 Distribution box



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 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

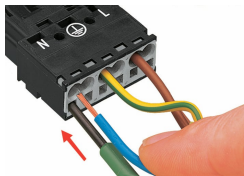


1.2.1 Locking system			
   			
Item No.: 770-101 Locking lever; for flying leads; for manual operation; black	Item No.: 770-121 Locking lever; for flying leads; for manual operation; white	Item No.: 770-111 Locking lever; for flying leads; for tool operation; black	Item No.: 770-131 Locking lever; for 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.

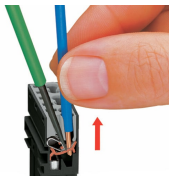


Insert the stripped solid conductor until it hits the backstop.



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

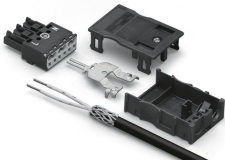


Simply cut off the coding pin from the socket.



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.