

Data Sheet | Item Number: 770-105

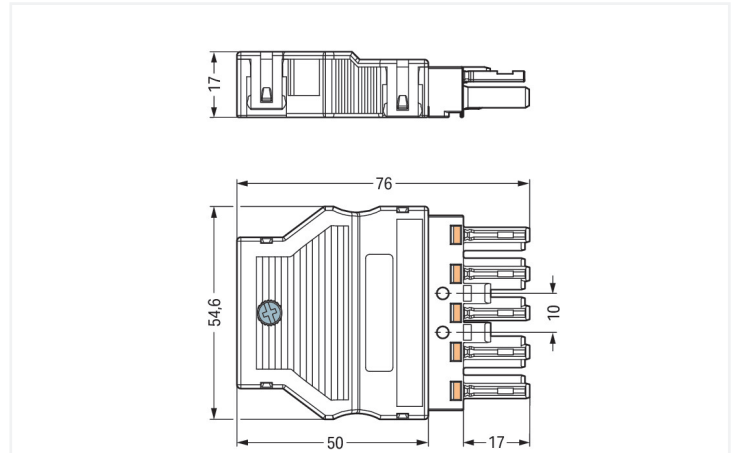
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black



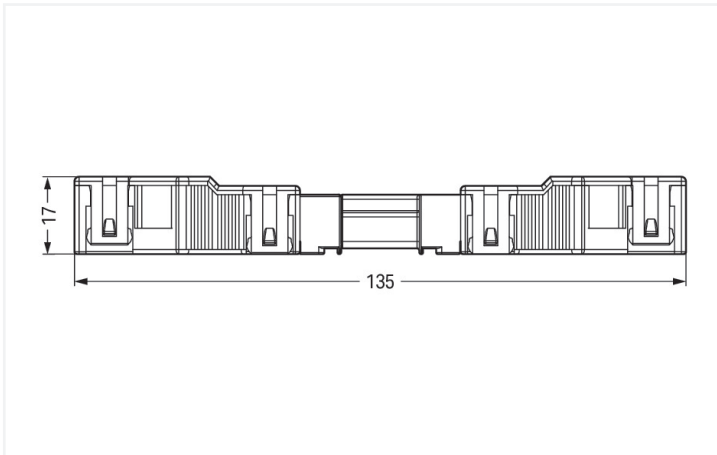
<https://www.wago.com/770-105>



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 with protection against mismatching. WAGO pluggable installation connectors are useful when criteria repeat or are distributed on a specified grid, for example for installing grid lighting or flush-mount lighting. For greater security in electrical installations, the pluggable installation connector is provided with mechanical 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!)). That results in the fact that users' fingers will never come into contact with energised elements. Standard mains applications for almost any domain of use can be implemented with WINSTA® MIDI pluggable installation connectors with A coding. This pluggable installation connector can be used for a voltage load of up to 25 A. Therefore, it can also be used for high power loads. Our WINSTA® MIDI product line achieves total flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees error-free, time-saving installation and offers flexibility for meeting all installation requirements. 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. Now you can also cut installation costs without compromising quality and safety: The WINSTA® MIDI pluggable installation connector with protection type IP20 eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- simple circuits
- with A coding for use in a large number of general mains applications
- custom-engineered solutions
- quick replacement of defective units during ongoing operation



This item includes:



Item No.: 770-505	1	Item No.: 770-205	1
Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black		Socket; 5-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)	400 V		
Rated impulse voltage (III/3)	6 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 points	10	Connection 1	
Total number of potentials	5	Connection technology	Push-in CAGE CLAMP®
		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	5
		Connectable sheathed cable diameter	9 ... 13 mm
		Conductor entry direction to mating direction	0°
		Strip length (outer insulation)	55 mm

Physical data

Pin spacing	10 mm / 0.394 inches
Width	54.6 mm / 2.15 inches
Height	17 mm / 0.669 inches
Depth	75.9 mm / 2.988 inches

Mechanical Data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	N ⊕ L1 L2 L3
Potential marking	N ⊕ L1 L2 L3
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)	Female connector/socket
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	0.656 MJ
Weight	29 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	4044918252157
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 770-105



Documentation



Bid Text			
770-105	19.02.2019	xml 3.01 KB	↓
770-105	08.06.2015	doc 23.50 KB	↓
ausschreiben.de 770-105			↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 770-105	EPLAN Data Portal 770-105
↓	↓
	WSCAD Universe 770-105
	↓
	ZUKEN Portal 770-105
	↓

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9995/206-101
pre-assembled connecting cable; Eca; Plug/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black

Item No.: 771-9995/006-101
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution box



Item No.: 899-631/455-000
Distribution box; 400 V + DALI; 2 inputs; 5 outputs; Cod. A, I; MINI, MIDI; black

Item No.: 899-681/147-000
Distribution box; 400 V + DALI; 2 inputs; 5 outputs; Cod. A, I; MINI, MIDI; white

Item No.: 899-631/187-000
Distribution box; Three-phase current (400 V); 1 input; 5 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.: 899-631/105-000
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

1.1.3 Distribution connector



Item No.: 770-609
3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black

Item No.: 770-659
3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white

Item No.: 770-621
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black

Item No.: 770-622
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; 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 Male connector/plug



Item No.: 770-815/011-000
Plug for PCBs; angled; 5-pole; Cod. A; black



Item No.: 770-815
Plug for PCBs; straight; 5-pole; Cod. A; black



Item No.: 770-215
Plug; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-415
Plug; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-115
Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-315
Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-715
Snap-in plug; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-715/007-000
Snap-in plug; with direct ground contact; 5-pole; Cod. A; 4,00 mm²; black

1.2 Required Accessories

1.2.1 Cover

1.2.1.1 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

1.2.2 Locking system

1.2.2.1 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 Cover

1.3.1.1 Cover



Item No.: 897-2005
Protective cap; Type4; for sockets and plugs; PVC; red

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.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

1.3.3.2 Wiring aid



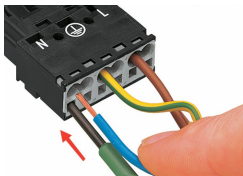
Item No.: 770-100
Wiring aid; 2- to 5-pole; Plastic; orange

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.

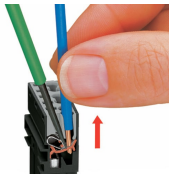


Insert the stripped solid conductor until it hits the backstop.



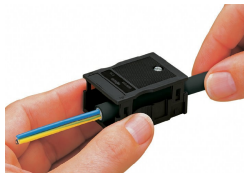
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

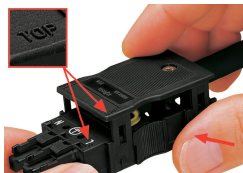


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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).