

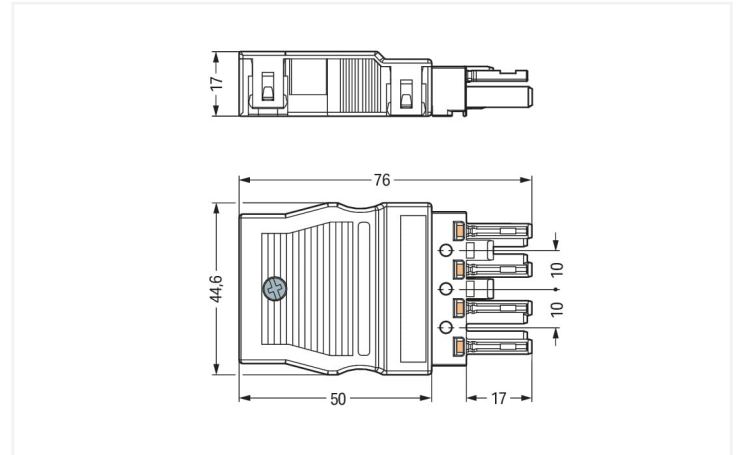
Data Sheet | Item Number: 770-104

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

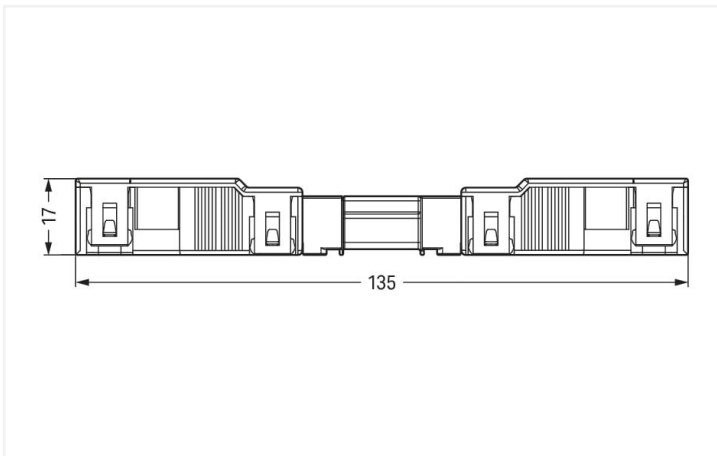
<https://www.wago.com/770-104>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Female connector/socket WINSTA® MIDI with protection type IP20

For power and signal transmission: The WINSTA® MIDI female connector/socket A coding. WAGO pluggable installation connectors can be used when specifications repeat or are distributed on a specific grid, for example for installing grid lighting or flush-mount lighting. For greater protection in electrical installations, the pluggable installation connector is equipped 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 electrified elements. The WINSTA® MIDI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. This pluggable installation connector is designed for a voltage load of up to 25 A. As a result, it can also be used for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in a broad range of individual products you can use for quick, easy and maximally flexible installation. The strip length is 55 mm.

Lower costs through fast commissioning and elimination of service expenses – solutions from WINSTA® MIDI

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It ensures error-free installation of cables and components, quickly and reliably. Choose quality and durability – with marking from WAGO makes the installation of electrical components visibly easier.

- protection against mismatching eliminates errors
- pre-assembled versions
- with A coding for a great number of applications
- exact dimensions
- quick replacement of defective units during ongoing operation



This item includes:



Item No.: 770-504	1	Item No.: 770-204	1
Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black		Socket; 4-pole; Cod. A; 4,00 mm ² ; 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		400 V	-	-			
Rated surge voltage		6 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	8	Connection 1	
Total number of potentials	4	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	4
		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	44.6 mm / 1.756 inches
Height	17 mm / 0.669 inches
Depth	76 mm / 2.992 inches

Mechanical data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	N 2/L 1/L'
Potential marking	N 2/L 1/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)	Female connector/socket
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	0.576 MJ
Weight	24.4 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	4044918252126	
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 770-104			

Documentation

Bid Text			
770-104	19.02.2019	xml 3.01 KB	
770-104	08.06.2015	doc 23.50 KB	
ausschreiben.de 770-104			

CAD/CAE-Data

CAD data	
2D/3D Models 770-104	

CAE data	
EPLAN Data Portal 770-104	
WSCAD Universe 770-104	
ZUKEN Portal 770-104	

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9994/206-101
pre-assembled connecting cable; Eca;
Plug/open-ended; 4-pole; Cod. A; H05VV-
F 4G 1.5 mm²; 1 m; 1,50 mm²; black

Item No.: 771-9994/006-101
pre-assembled interconnecting cable;
Eca; Socket/plug; 4-pole; Cod. A; H05VV-
F 4G 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution connector



Item No.: 770-944
h-distribution connector; 4-pole; Cod. A; 1
input; 2 outputs; outputs on one side; 2
locking levers; black

Item No.: 770-945
h-distribution connector; 4-pole; Cod. A;
1 input; 2 outputs; outputs on one side; 3
locking levers; for flying leads; black

Item No.: 770-626
T-distribution connector; 4-pole; Cod. A;
1 input; 2 outputs; 2 locking levers; black

Item No.: 770-627
T-distribution connector; 4-pole; Cod. A; 1
input; 2 outputs; 3 locking levers; for flying
leads; black



1.1.3 Male connector/plug



Item No.: 770-814/011-000
Plug for PCBs; angled; 4-pole; Cod. A; black

Item No.: 770-814
Plug for PCBs; straight; 4-pole; Cod. A; black

Item No.: 770-214
Plug; 4-pole; Cod. A; 4,00 mm²; black

Item No.: 770-114
Plug; with strain relief housing; 4-pole; Cod. A; 4,00 mm²; black



Item No.: 770-714
Snap-in plug; 4-pole; Cod. A; 4,00 mm²; black

Item No.: 770-714/007-000
Snap-in plug; with direct ground contact; 4-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

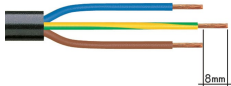
1.3.3.1 Operating tool



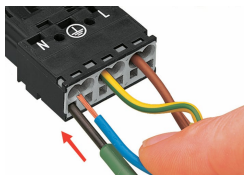
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

Conductor termination



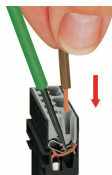
- 1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm



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.

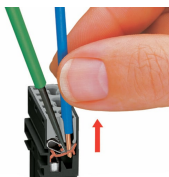


Insert the stripped solid conductor until it hits the backstop.



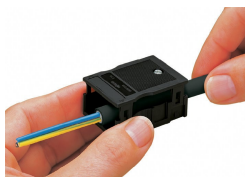
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

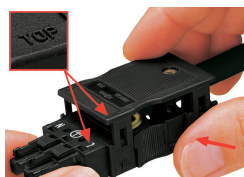


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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).