

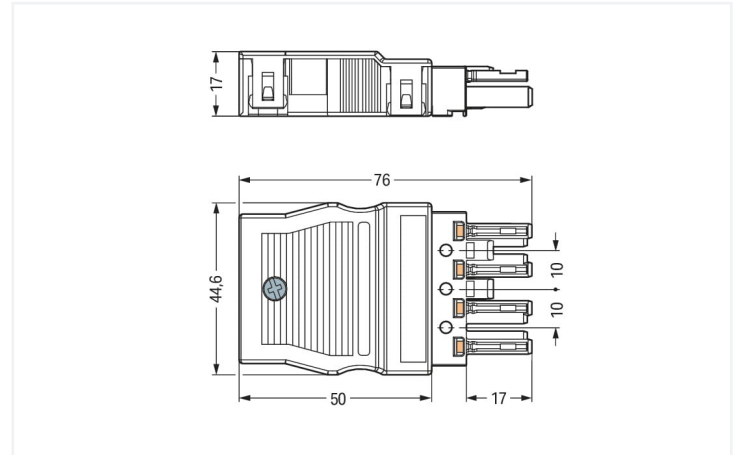
## Data Sheet | Item Number: 770-104

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

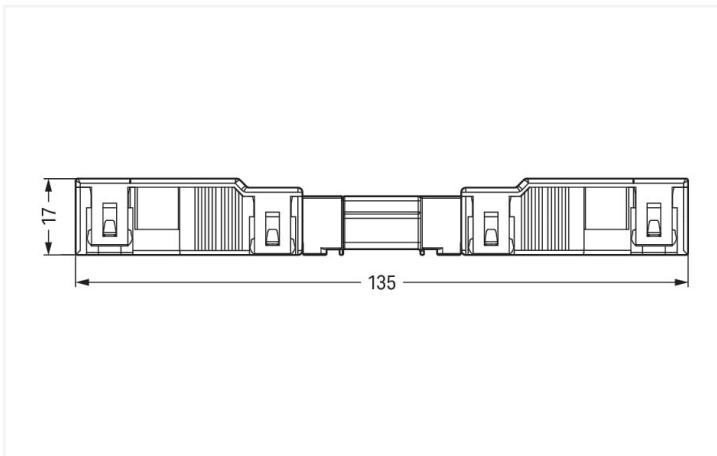
<https://www.wago.com/770-104>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Female connector/socket WINSTA® MIDI with protection against mismatching

Use effective pluggable connections instead of laborious screw connections: With the WINSTA® MIDI female connector/socket rated current 25 A. WAGO pluggable installation connectors are useful when specifications repeat or are distributed on a defined grid, for example for installing grid lighting or flush-mount lighting. The coding options reduce installation errors, allowing fast, secure wiring of all components. The pluggable installation connector offers protection against contact 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!)). 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 is designed 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 found in a variety of projects you can use for quick, easy, secure, tailored electrical installation. A range up to 55 mm can be used for the strip length.

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

WINSTA® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It allows error-free installation of cables and components, quickly and reliably. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismatching from WAGO.

- effective protection against mismatching
- simple circuits
- with A coding for use in a large number of general mains applications
- custom-engineered solutions
- convenient installation and commissioning



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 <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		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 <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	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)	<a href="#">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	0.577 MJ
Connector color	black
Strain relief color	black
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
Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG		
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			
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



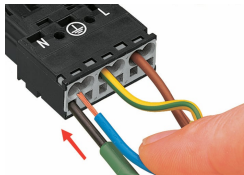
Item No.: 210-719  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

Conductor termination



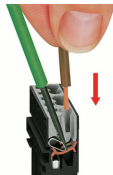
- 1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm



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.

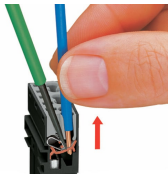


Insert the stripped solid conductor until it hits the backstop.



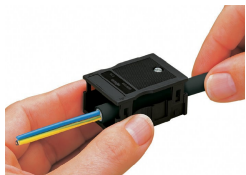
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

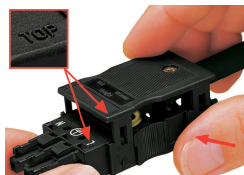


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

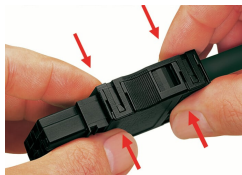
Installation



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).