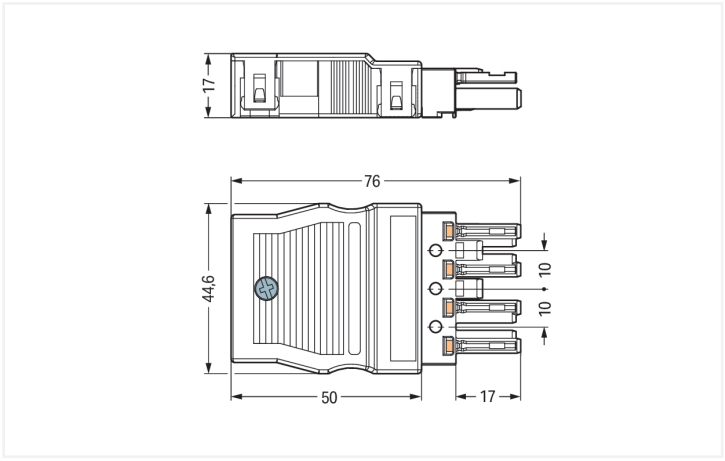
Data Sheet | Item Number: 770-104

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

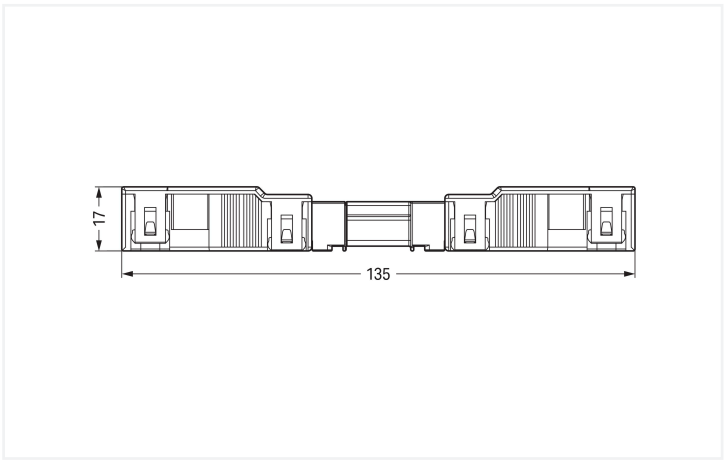
https://www.wago.com/770-104



Color: ■ black



Dimensions in mm



Dimensions in mm
Overall length when mated

Female connector/socket *WINSTA*® MIDI 4-pole

The *WINSTA*® MIDI female connector/socket 4-pole provides the foundation for installation of fine-stranded and solid conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to various requirements in next to no time. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. The pluggable installation connector is protected against ingress by solid objects 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!)). Thanks to the color coding and mechanical A coding of *WINSTA*® MIDI pluggable installation connectors, you can clearly distinguish different circuits. 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 allows total flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it achieves time-saving, error-free installation and offers flexibility and customization for meeting all installation requirements. The strip length is 55 mm.

WINSTA® MIDI solutions for your electrical installation – protected against mismating and maintenance-free

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. Now you can also lower installation expenses without compromising safety and quality: with strain relief hosting eliminates the need for servicing and prevents unnecessary downtime.

- effective protection against mismating
- for automation controllers
- with A coding for use in a large number of general mains applications

- ready for immediate use
- convenient installation and commissioning

This item includes:



Item No.: 770-504 — 1

Strain relief housing; 4-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; black



Item No.: 770-204 — 1

Socket; 4-pole; Cod. A; black

Notes

General safety information	1. Only to be used by a qualified electrician or by a person electrically instructed for the task (EIP per DIN VDE 0105-100). 2. Do not install while energized or under load. 3. Use only for its intended purpose. 4. Observe applicable national regulations, standards and directives. 5. Observe the technical specifications of the products. 6. Ensure correct polarity assignment. 7. Do not use damaged or contaminated components. 8. Observe conductor types, conductor cross-sections, strip lengths and cable diameters. 9. Insert conductors up to the stop. 10. Use only with locking lever and strain relief. 11. Use original accessories only. **To be sold only with installation instructions!**

Electrical data

Ratings per IEC/EN 60664-1

Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	25 A	-	-

Approvals per UL 1977

Rated voltage	600 V
Rated current	23 A

General information

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/ socket

Connection Data

Clamping units	8
Total number of potentials	4

Connection 1

Connection technology	Push-in CAGE CLAMP®
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	4
Connectable sheathed cable diameter	9 … 13 mm

Continued on next page

Connection 1

Conductor entry direction to mating direction	0 °
Strip length (outer insulation)	55 mm
Coding	A

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

Use	General mains applications
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!)
Screw tightening torque	0.5 Nm

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 (main housing)	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	0.489 MJ
Connector color	black
Strain relief color	black
Weight	24.6 g

Continued on next page

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)
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918252126
Customs tariff number	85366990990

Product Classification

UNSPSC	39121421
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

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
cURus Underwriters Laboratories Inc.	UL 1059	E 45172
VDE VDE Prüf- und Zertifizierungsinstitut	EN 61984	40002889
VDE VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Continued on next page

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0095977-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-104

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

Continued on next page

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; black



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

Continued on next page

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



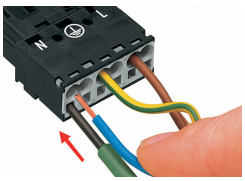
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

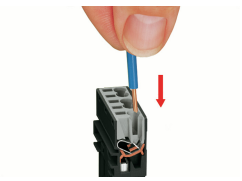
Conductor termination



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.

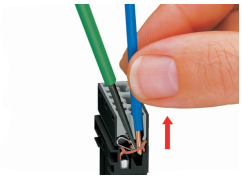


Insert the stripped solid conductor until it hits the backstop.



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.

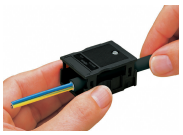
Conductor removal



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

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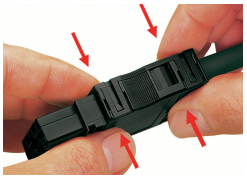
Installation



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).