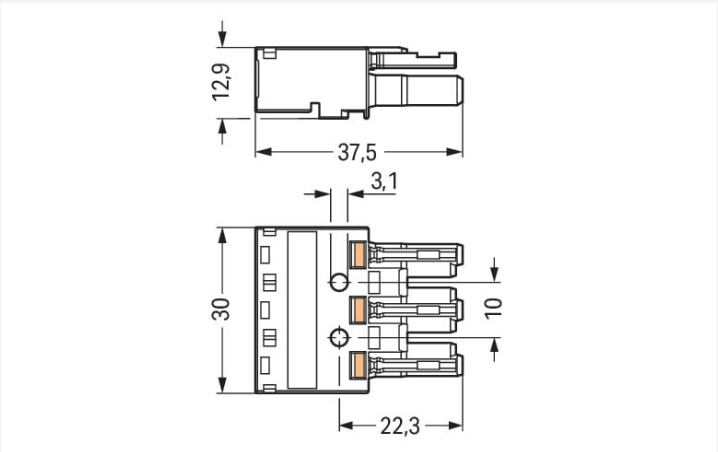
Data Sheet | Item Number: 770-203

Socket; 3-pole; Cod. A; 4,00 mm²; black

https://www.wago.com/770-203

Color: ■ black



Dimensions in mm

Female connector/socket *WINSTA*® MIDI rated current 25 A

Use effective pluggable connections instead of laborious screw connections: With the *WINSTA*® MIDI female connector/socket rated current 25 A. WAGO pluggable installation connectors can be used when criteria repeat or are distributed on a specific pattern, 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 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. The rated current and voltage are important criteria for selecting a pluggable installation connector: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is also suitable for robust loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in a broad range of individual products you can use for quick, easy, flexible, and secure electrical installation.

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

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and therefore faster, more reliable, and error-free. Using this pre-assembled system reduces time spent on assembly and errors during installation at the construction site. Now you can also reduce installation expenses without compromising quality and safety: with protection type IP20 reduces the need for servicing and prevents unnecessary downtime.

- effective protection against mismating
- pre-assembled versions
- with A coding for use in many general mains applications
- exact dimensions
- convenient installation and commissioning

 Continued on next page

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	-	-
Rated surge voltage	4 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

Connection points	6
Total number of potentials	3
Number of test slots	3

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	3
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	10 mm / 0.394 inches
Width	30 mm / 1.181 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

Mechanical data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	L N
Potential marking	L N
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!)

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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).

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	0.165 MJ
Weight	9.7 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)	100 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918252225
Customs tariff number	85366990990

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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

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

Declarations of conformity and manufacturer's declarations

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

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-203

Continued on next page

Documentation

Bid Text

770-203	19.02.2019	xml 3.01 KB	
770-203	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data

2D/3D Models 770-203

CAE data

EPLAN Data Portal
770-203

WSCAD Universe
770-203

ZUKEN Portal 770-203

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 771-9993/206-101
pre-assembled connecting cable; Eca; Plug/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; black

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; black

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; black

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; black

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1.1.2 Distribution box

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; 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

1.1.4 Male connector/plug

Item No.: 770-813/011-000
Plug for PCBs; angled; 3-pole; Cod. A; black

Item No.: 770-813
Plug for PCBs; straight; 3-pole; Cod. A; black

Item No.: 770-213
Plug; 3-pole; Cod. A; 4,00 mm²; black

Item No.: 770-213/002-000
Plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm²; black

Item No.: 770-113
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black

Item No.: 770-213/035-000
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black

Item No.: 770-713
Snap-in plug; 3-pole; Cod. A; 4,00 mm²; black

Item No.: 770-713/007-000
Snap-in plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm²; black

1.2 Required Accessories

1.2.1 Locking system

1.2.1.1 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

1.2.2 Strain relief

1.2.2.1 Strain relief housing

Item No.: 770-503
Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; black

Item No.: 770-513
Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; white

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 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

1.3.2 Installation

1.3.2.1 Mounting accessories

Item No.: 770-318
Snap-in frame; 3-pole; 1.0 ... 3.0 mm; black

Item No.: 770-338
Snap-in frame; 3-pole; 1.0 ... 3.0 mm; white

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 Shield termination

1.3.4.1 Shield termination

Item No.: 770-523
Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

 Continued on next page

1.3.5 Strain relief

1.3.5.1 Strain relief housing

Item No.: 770-503/021-000
Strain relief housing; 3-pole; for 1 cable; 9.0 … 13.0 mm; 71 mm; black

Item No.: 770-513/021-000
Strain relief housing; 3-pole; for 1 cable; 9.0 … 13.0 mm; 71 mm; white

Item No.: 770-503/023-000
Strain relief housing; 3-pole; for 2 cables; 4.5 … 8.0 mm; 55 mm; black

Item No.: 770-513/023-000
Strain relief housing; 3-pole; for 2 cables; 4.5 … 8.0 mm; 55 mm; white

Item No.: 770-513/032-000
Strain relief housing; 3-pole; for 2 cables; 8.0 … 11.5 mm; 55 mm; white

Item No.: 770-503/035-000
Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 … 11.5 mm; 48 mm; black

Item No.: 770-503/038-000
Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 … 11.5 mm; 48 mm; black

Item No.: 770-513/035-000
Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 … 11.5 mm; 48 mm; white

Item No.: 770-513/038-000
Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 … 11.5 mm; 48 mm; white

Item No.: 770-503/032-000
Strain relief housing; 3-pole; with locking clip; for 2 cables; 8.0 … 11.5 mm; 55 mm; black

1.3.6 Tool

1.3.6.1 Operating tool

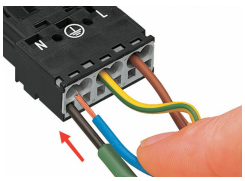
Item No.: 770-383
Operating tool; 3-way; green

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

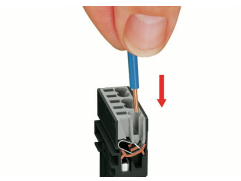
Installation Notes

Conductor termination

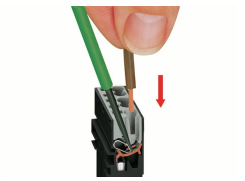
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

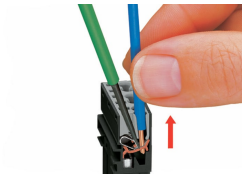


Insert the stripped solid conductor until it hits the backstop.



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.

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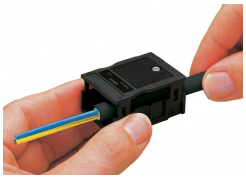
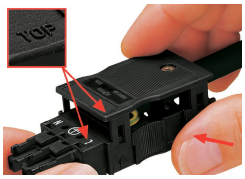
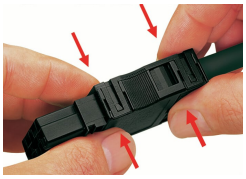
Installation



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).