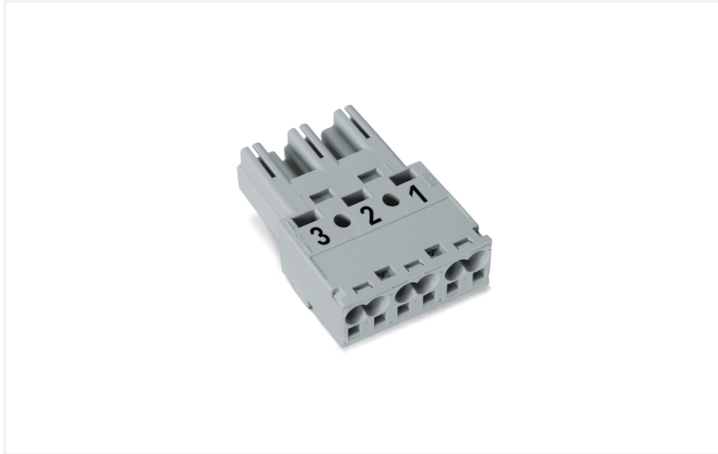


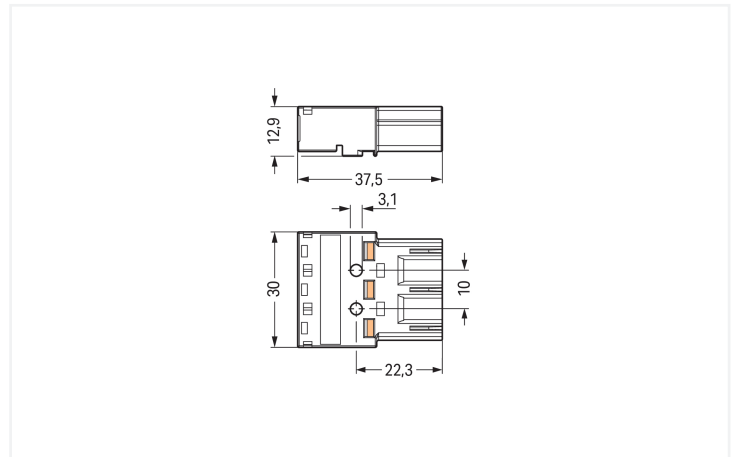
Data Sheet | Item Number: 770-253

Plug; 3-pole; Cod. B; gray

<https://www.wago.com/770-253>



Color: ■ gray



Dimensions in mm

Male connector/plug *WINSTA*® MIDI with protection type IP20

The *WINSTA*® MIDI male connector/plug with protection against mismatching is the pluggable solution for your use in control cabinets, for lighting connections or on PCBs. WAGO pluggable installation connectors are useful when requirements repeat or are planned on a specific grid, for example for installing grid lighting or flush-mount lighting. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including 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. B coding enables the *WINSTA*® MIDI pluggable installation connectors to be used for application control in the domains of automation, robotics, and mechanical engineering. This pluggable installation connector can be used for a current load of up to 25 A. Therefore, it can also be used for high power loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates exemplary electrification. Thanks to the included test slot, it is possible to check connections even when they are plugged in. This saves time, labor, and money.

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

The *WINSTA*® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with marking from WAGO.

- protection against mismatching eliminates errors
- for automation controllers
- with B coding for use in process automation, such as lighting technology, among other examples
- ready to install and use immediately

- quick replacement of defective units during ongoing operation

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!
Variants:	Other pole markings Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

Electrical data				
Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		250 V	-	-
Rated impulse withstand 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	
Clamping units	6
Total number of potentials	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 °
Coding	B

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

Use	Control technology
Variable coding	Yes
Marking	3 2 1
Potential marking	3 2 1
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)	Male connector/plug
Connector (connection type)	for conductor
Mismating protection	Yes
Note on mismating protection	All <i>WINSTA</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).

Material data

Note (material data)	Information on material specifications can be found here
Color	gray
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	0.178 MJ
Weight	10 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)
PU (SPU)	100 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918253963
Customs tariff number	85366990990

Product Classification	
UNSPSC	39121402
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		Declarations of conformity and manufacturer's declarations									
  											
Approval	Standard	Certificate Name									
CCA DEKRA Certification B.V.	IEC 61984	NL-32104									
CCA DEKRA Certification B.V.	EN 61984	2173495.01									
cURus Underwriters Laboratories Inc.	UL 1977	E45171									
cURus Underwriters Laboratories Inc.	UL 1059	E 45172									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-									

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 770-253

Download icon

Documentation			
Bid Text			
770-253	19.02.2019	xml 2.96 KB	Download icon
770-253	08.06.2015	doc 24.00 KB	Download icon

CAD/CAE-Data

CAD data

2D/3D Models 770-253

Download icon

CAE data

EPLAN Data Portal 770-253

Download icon

WSCAD Universe 770-253

Download icon

ZUKEN Portal 770-253

Download icon

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



- Item No.: 771-9993/105-103**
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. B; H05VV-F 3 x 1.0 mm²; 1 m; 1,00 mm²; gray
- Item No.: 771-9993/005-103**
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. B; H05VV-F 3 x 1.0 mm²; 1 m; 1,00 mm²; gray

1.1.2 Distribution connector

Item No.: 770-1714
3-way distribution connector; 3-pole; Cod. B; 1 input; 3 outputs; gray

Item No.: 770-1764
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 2 locking levers; gray

Item No.: 770-1767
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; gray

Item No.: 770-1661
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; gray

Item No.: 770-1761
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; gray

Item No.: 770-967
T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; gray

Item No.: 770-970
T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; gray

1.1.3 Female connector/socket

			
Item No.: 770-743 Snap-in socket; 3-pole; Cod. B; gray	Item No.: 770-843/011-000 Socket for PCBs; angled; 3-pole; Cod. B; gray	Item No.: 770-843 Socket for PCBs; straight; 3-pole; Cod. B; gray	Item No.: 770-243 Socket; 3-pole; Cod. B; gray

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

1.3 Optional Accessories

1.3.1 Coding

1.3.1.1 Coding


Item No.: 770-401 Coding pin; for plugs; Plastic; gray

1.3.2 Cover

1.3.2.1 Cover


Item No.: 770-360 Lockout cap; for plugs; 5-pole; separable; yellow

1.3.3 Installation

1.3.3.1 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

1.3.4 Marking

1.3.4.1 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

1.3.5 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.: 770-503
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



Item No.: 770-513/032-000
Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; black



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



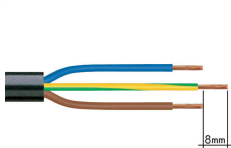
Item No.: 770-383
Operating tool; 3-way; green



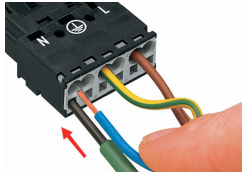
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

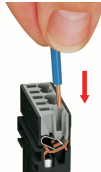
Conductor termination



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.

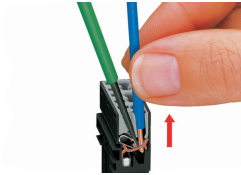


Insert the stripped solid conductor until it hits the backstop.



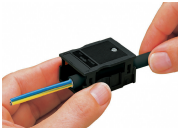
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal



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

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.

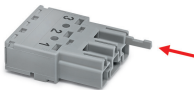


Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding

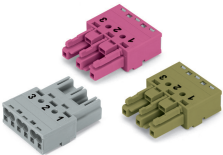


Simply cut off the coding pin from the socket.



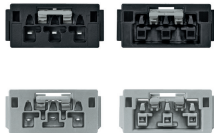
Insert coding pin into plug (break first) until it engages.

Mismating protection



B-coded connectors with different colors can be plugged together.

Important note:
Different colors and/or pole markings are used for circuit identification.
Only connectors of the same color and same pole marking must be plugged together.



B-coded connectors (shown in gray) not only differ in color, but also in their design, making them incompatible with other coded connectors.



Easy circuit identification via different marking and colors