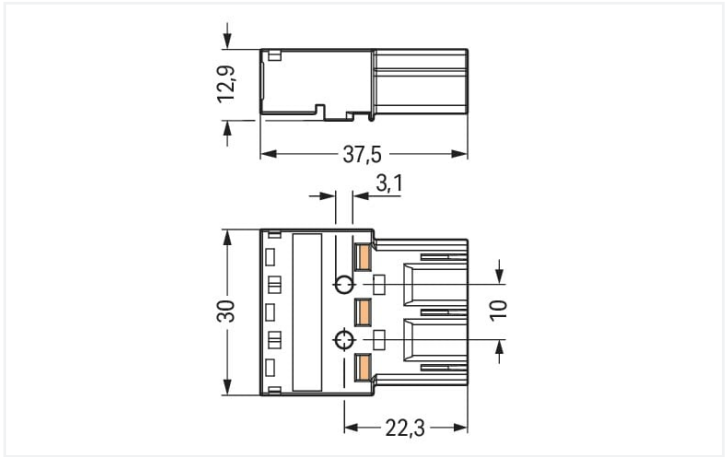


Color: ■ light green



Dimensions in mm

Male connector/plug WINSTA® MIDI with protection type IP20

The WINSTA® MIDI male connector/plug B coding is the pluggable solution for your application in control cabinets, for lighting connections or on PCBs. WAGO pluggable installation connectors are useful when criteria repeat or are distributed on a defined pattern, 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 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!)). B coding enables the WINSTA® MIDI pluggable installation connectors to be used for application control in automation, mechanical engineering and robotics. Important parameters in the selection of a pluggable installation connector are the rated current and voltage: They tell us about the product's domains of use. This product has a current rating of 25 A – therefore it is suitable for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in can be found in a variety of projects you can use for quick, easy, secure, tailored installation.

Push-in CAGE CLAMP® spring pressure connection technology – pluggable installation instead of laborious screw connections!

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and therefore more efficient, more reliable, and error-free. Use of this pre-assembled system decreases time spent on assembly and errors during installation at the construction site. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with marking from WAGO.

- pluggable installation connectors with protection against mismating
- simple circuits
- with B coding for use in process automation, such as lighting technology
- ready to install and use immediately
- rapid, structured electrical installation

Notes	
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 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	Connection 1	
Total number of potentials	3	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	Control technology
Coding	B
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 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	light green
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	0.197 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)
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	4050821451112
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
CCA DEKRA Certification B.V.	IEC 61984	NL-32104	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
CCA DEKRA Certification B.V.	EN 61984	2173495.01	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cURus Underwriters Laboratories Inc.	UL 1977	E45171			
cURus Underwriters Laboratories Inc.	UL 1059	E 45172			



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 770-273	

Documentation

Bid Text			
770-273	19.02.2019	xml 2.96 KB	
770-273	08.06.2015	doc 24.00 KB	



CAD/CAE-Data	
<div>CAD data</div> <div>2D/3D Models 770-273</div> <div>↓</div>	<div>CAE data</div> <div>WSCAD Universe 770-273</div> <div>↓</div>
	<div>ZUKEN Portal 770-273</div> <div>↓</div>

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly




Item No.: 771-9993/105-105
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. B; H05VV-F 3 x 1.0 mm²; 1 m; 1,00 mm²; light green




Item No.: 771-9993/005-105
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. B; H05VV-F 3 x 1.0 mm²; 1 m; 1,00 mm²; light green


1.1.2 Distribution connector




Item No.: 770-1715
3-way distribution connector; 3-pole; Cod. B; 1 input; 3 outputs; light green




Item No.: 770-1765
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 2 locking levers; light green




Item No.: 770-1768
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; light green




Item No.: 770-1662
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; light green



Item No.: 770-1762
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; light green




Item No.: 770-1612
T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; light green




Item No.: 770-1712
T-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; light green


1.1.3 Female connector/socket




Item No.: 770-763
Snap-in socket; 3-pole; Cod. B; 4,00 mm²; light green



Item No.: 770-863/011-000
Socket for PCBs; angled; 3-pole; Cod. B; light green



Item No.: 770-863
Socket for PCBs; straight; 3-pole; Cod. B; light green




Item No.: 770-263
Socket; 3-pole; Cod. B; 4,00 mm²; light green


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			
			
<div><div>Item No.: 770-401</div><div>Coding pin; for plugs; Plastic; gray</div></div>			
1.3.2 Cover			
1.3.2.1 Cover			
			
<div><div>Item No.: 770-360</div><div>Lockout cap; for plugs; 5-pole; separable; yellow</div></div>			
1.3.3 Installation			
1.3.3.1 Mounting accessories			
			
<div><div>Item No.: 770-318</div><div>Snap-in frame; 3-pole; 1.0 ... 3.0 mm; black</div></div>		<div><div>Item No.: 770-338</div><div>Snap-in frame; 3-pole; 1.0 ... 3.0 mm; white</div></div>	
1.3.4 Marking			
1.3.4.1 Marker			
			
<div><div>Item No.: 770-450/000-006</div><div>Marker card; Plastic; blue</div></div>		<div><div>Item No.: 770-450/000-001</div><div>Marker card; Plastic; green</div></div>	
			
<div><div>Item No.: 770-450/000-012</div><div>Marker card; Plastic; orange</div></div>		<div><div>Item No.: 770-450/000-005</div><div>Marker card; Plastic; red</div></div>	
			
<div><div>Item No.: 770-450</div><div>Marker card; Plastic; white</div></div>		<div><div>Item No.: 770-450/000-002</div><div>Marker card; Plastic; yellow</div></div>	
1.3.5 Strain relief			
1.3.5.1 Strain relief housing			
			
<div><div>Item No.: 770-503/021-000</div><div>Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; black</div></div>		<div><div>Item No.: 770-513/021-000</div><div>Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; white</div></div>	
			
<div><div>Item No.: 770-503/023-000</div><div>Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; black</div></div>		<div><div>Item No.: 770-513/023-000</div><div>Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; white</div></div>	
			
<div><div>Item No.: 770-513</div><div>Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; white</div></div>		<div><div>Item No.: 770-513/032-000</div><div>Strain relief housing; 3-pole; for 2 cables; 8.0 ... 11.5 mm; 55 mm; white</div></div>	
			
<div><div>Item No.: 770-503/035-000</div><div>Strain relief housing; 3-pole; with locking clip; for 1 cable; 7.0 ... 11.5 mm; 48 mm; black</div></div>			

1.3.5.1 Strain relief housing



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



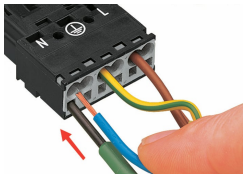
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

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.

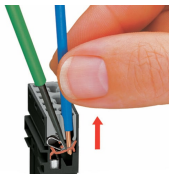


Insert the stripped solid conductor until it hits the backstop.



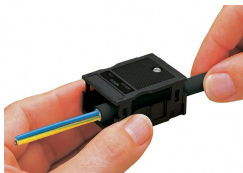
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

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).

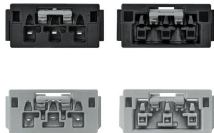
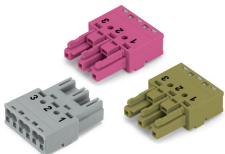
Coding



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