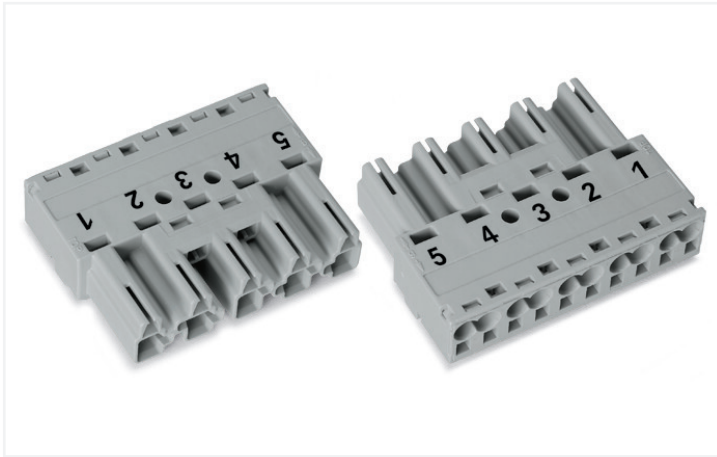


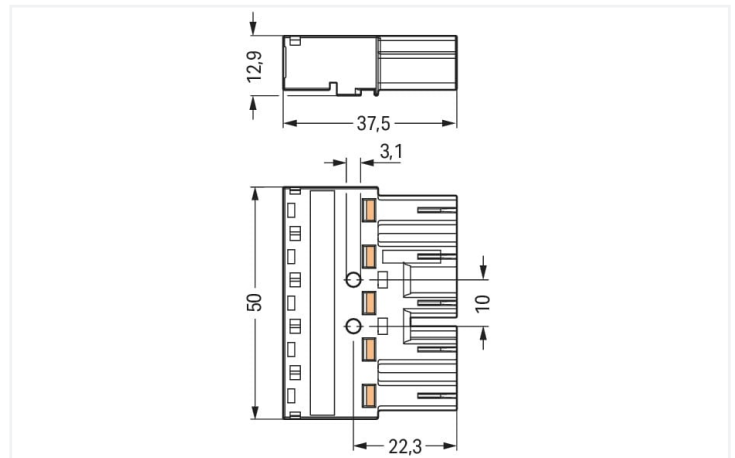
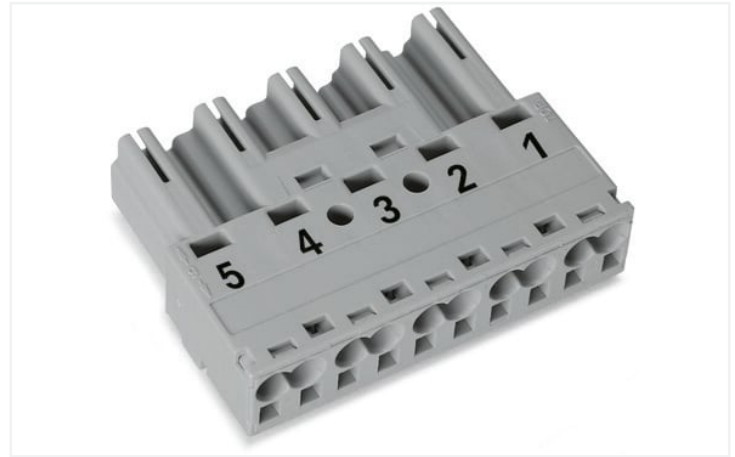
## Data Sheet | Item Number: 770-255

Plug; 5-pole; Cod. B; 4,00 mm<sup>2</sup>; gray

<https://www.wago.com/770-255>



Color: ■ gray



Dimensions in mm

### Male connector/plug WINSTA® MIDI with protection against mismatching

For signal and power transmission: The WINSTA® MIDI male connector/plug B coding. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to a huge variety of requirements in no time flat. For greater security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismatching. The pluggable installation connector offers touch-proof protection 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!)). Solutions like the WINSTA® MIDI pluggable installation connectors with B coding are suitable for applications related to process control, such as for lighting or in data networks. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is also suitable for high power loads. The WINSTA® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates precise electrification. Thanks to the included test slot, connections can be checked even when they are plugged in. This saves time, labor, and money.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and thus faster, even more reliable, and error-free. Use of this pre-assembled system decreases assembly times and errors during installation at the construction site. Now you can also lower installation expenses without compromising safety and quality: with marking eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- simple circuits
- for automation controllers
- ready for immediate use
- convenient installation and commissioning



Notes	
Variants:	Other pole markings Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .

Electrical data			
Ratings per		IEC/EN 60664-1	
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated surge voltage	6 kV	-	-
Rated current	25 A	-	-

Ratings per IEC/EN – Notes	
Note (rated current)	25 A for 3-pole load 20 A for 4- and 5-pole load

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	10
Total number of potentials	5

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	5
Conductor entry direction to mating direction	0°

Physical data	
Pin spacing	10 mm / 0.394 inches
Width	50 mm / 1.969 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	5 4 3 2 1
Potential marking	5 4 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)	<a href="#">Information on material specifications can be found here</a>
Color	gray
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	0.327 MJ
Weight	15.9 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)	50 pcs	
Packaging type	Box	
Country of origin	DE	
GTIN	4044918253987	
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
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 770-255

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Documentation

Bid Text			
770-255	19.02.2019	xml 2.96 KB	Download icon
770-255	08.06.2015	doc 24.00 KB	Download icon

CAD/CAE-Data

CAD data

2D/3D Models 770-255

Download icon

CAE data

EPLAN Data Portal 770-255

Download icon

WSCAD Universe 770-255

Download icon

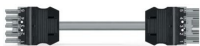
ZUKEN Portal 770-255

Download icon

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



**Item No.: 771-9995/105-103**  
pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. B; (H) 05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray

**Item No.: 771-9995/005-103**  
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. B; (H)05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray

1.1.2 Distribution connector

**Item No.: 770-1744**  
3-way distribution connector; 5-pole; Cod. B; 1 input; 3 outputs; gray

**Item No.: 770-1641**  
T-distribution connector; 5-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; gray

**Item No.: 770-1741**  
T-distribution connector; 5-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; gray



1.1.3 Female connector/socket



**Item No.: 770-745**  
Snap-in socket; 5-pole; Cod. B; 4,00 mm<sup>2</sup>; gray



**Item No.: 770-845/011-000**  
Socket for PCBs; angled; 5-pole; Cod. B; gray



**Item No.: 770-845**  
Socket for PCBs; straight; 5-pole; Cod. B; gray



**Item No.: 770-245**  
Socket; 5-pole; Cod. B; 4,00 mm<sup>2</sup>; 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

1.2.2 Strain relief

1.2.2.1 Strain relief housing



**Item No.: 770-505/021-000**  
Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; black



**Item No.: 770-515/021-000**  
Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; white



**Item No.: 770-505/023-000**  
Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black



**Item No.: 770-515/023-000**  
Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white



**Item No.: 770-505**  
Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black



**Item No.: 770-515**  
Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; 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



**Item No.: 897-2005**  
Protective cap; Type4; for sockets and plugs; PVC; red



1.3.3 Installation

1.3.3.1 Mounting accessories



Item No.: 770-321  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black



Item No.: 770-341  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white



Item No.: 770-320  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black



Item No.: 770-340  
Snap-in frame; 5-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 Tool

1.3.5.1 Operating tool



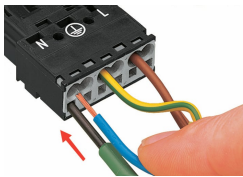
Item No.: 210-719  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

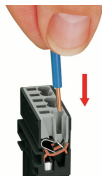
Conductor termination



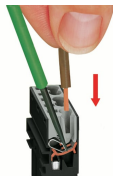
- 1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm



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.

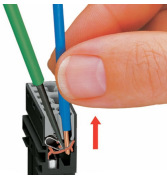


Insert the stripped solid conductor until it hits the backstop.



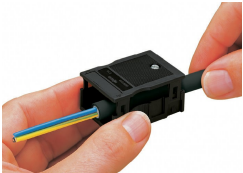
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

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.

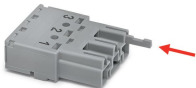


Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding

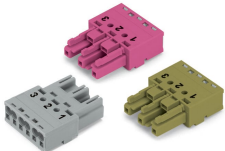


Simply cut off the coding pin from the socket.



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