Data Sheet | Item Number: 770-255

Plug; 5-pole; Cod. B; 4,00 mm²; gray

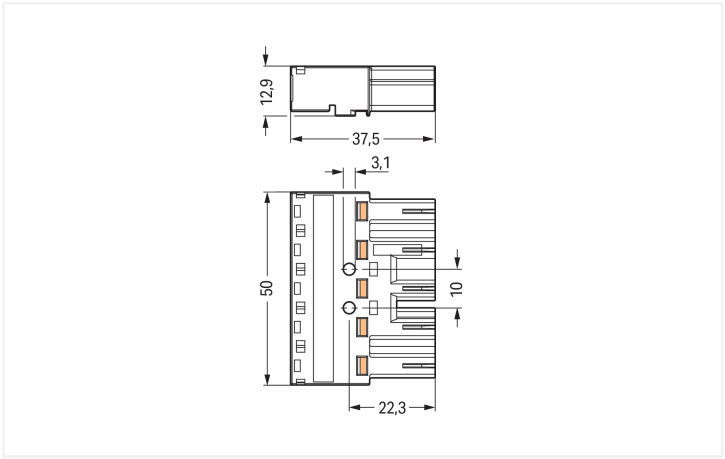
https://www.wago.com/770-255





Color: gray





Dimensions in mm

Male connector/plug *WINSTA*® MIDI B coding

Use effective pluggable connections instead of laborious screw connections: With the *WINSTA*® MIDI male connector/plug with protection type IP20. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to many different requirements in seconds. The coding options reduce installation errors, allowing fast, secure wiring of all components. 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!)). This means that users' fingers will never come into contact with electrified elements. Pluggable installation connectors with B coding from the *WINSTA*® MIDI line are available in pink, light green, or gray, allowing you to distinguish different circuits, for example for light, pumps or, sun blinds. Customer-specific pole marking is possible as well. 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 – therefore it is also suitable for robust loads. The *WINSTA*® MIDI product line offers total flexibility for the installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it achieves time-saving, error-free installation and offers flexibility for meeting an enormous variety of installation requirements.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and therefore faster, more reliable, and error-free. Use of this pre-assembled system decreases assembly times 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 protection type IP20 from WAGO.

- pluggable installation connectors with protection against mismating
- pre-assembled versions

- for automation controllers
- flexible installation to save space
- convenient installation and commissioning

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	400 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	25 A	-	-

Ratings per IEC/EN – Notes	
Rated current (note)	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

Clamping units	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 °
Coding	B

Continued on next page

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

Use	Control technology
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)	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	0.295 MJ
Weight	16.4 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)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918253987
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

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

Declarations of conformity and manufacturer's declarations

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

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-255

Documentation

Bid Text

770-255	19.02.2019	xml 2.96 KB
770-255	08.06.2015	doc 24.00 KB

CAD/CAE-Data

CAD data

2D/3D Models 770-255

CAE data

EPLAN Data Portal 770-255

WSCAD Universe 770-255

ZUKEN Portal 770-255

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

Continued on next page

1.1.3 Female connector/socket



Item No.: 770-745
Snap-in socket; 5-pole; Cod. B; 4,00 mm²; 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 mm²; 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

Continued on next page

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

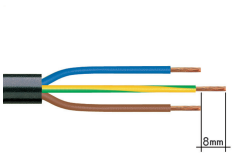
1.3.5.1 Operating tool



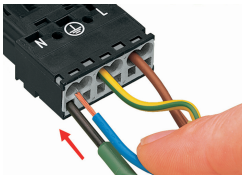
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

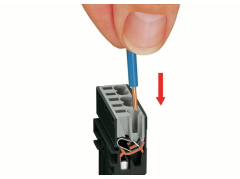
Conductor termination



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.

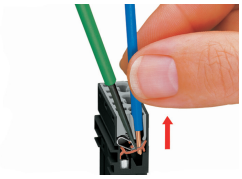


Insert the stripped solid conductor until it hits the backstop.



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.

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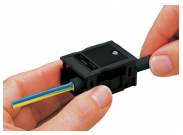
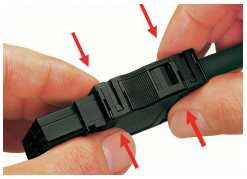
Installation



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.

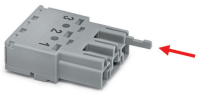


Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding

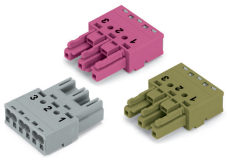


Simply cut off the coding pin from the socket.



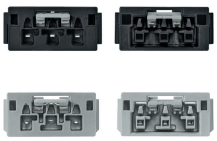
Insert coding pin into plug (break first) until it engages.

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