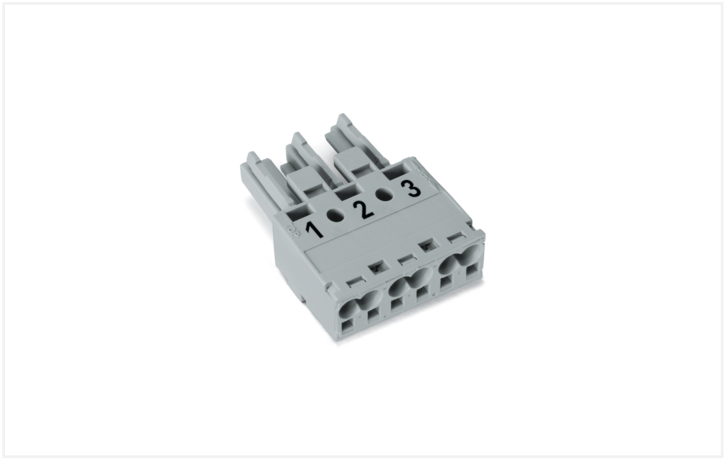
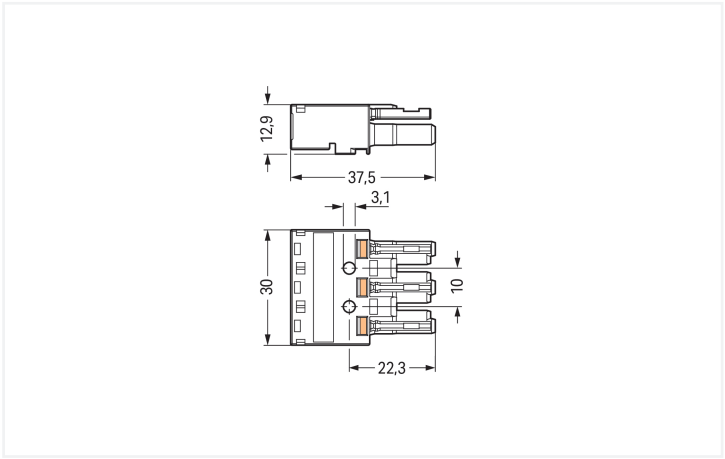
Data Sheet | Item Number: 770-243

Socket; 3-pole; Cod. B; gray

https://www.wago.com/770-243



Color: gray



Dimensions in mm

Female connector/socket *WINSTA*® MIDI B coding

The *WINSTA*® MIDI female connector/socket B coding supports rapid, correct installation. Our pluggable installation connectors with spring pressure connection technology work completely without screw connections. They allow fast, efficient, error-free installation in a large number of possible uses. 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!)). Solutions like the *WINSTA*® MIDI pluggable installation connectors with B coding are appropriate for process control, for example, for lighting or in data networks. This pluggable installation connector is designed for a voltage load of up to 25 A. Therefore, it can also be used for high power loads. The *WINSTA*® MIDI product line offers flexibility for the installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees time-saving, error-free installation and offers flexibility and customization for meeting various installation requirements.

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

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

- pluggable installation connectors with protection against mismating
- pre-assembled versions
- with B coding for use in automation of processes, such as lighting technology, for instance
- exact dimensions
- fast, secure installation

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

Continued on next page

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	1 2 3
Potential marking	1 2 3
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)	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	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	0.147 MJ
Weight	9.6 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)	100 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918252430
Customs tariff number	85366990990

Product Classification

UNSPSC	39121421
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

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Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-243

Documentation

Bid Text

770-243	19.02.2019	xml 2.95 KB
770-243	08.06.2015	doc 24.00 KB

CAD/CAE-Data

CAD data

2D/3D Models 770-243

CAE data

EPLAN Data Portal 770-243

WSCAD Universe 770-243

ZUKEN Portal 770-243

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 771-9993/205-103
pre-assembled connecting cable; Eca; Plug/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

Continued on next page

1.1.3 Male connector/plug

Item No.: 770-853/011-000
Plug for PCBs; angled; 3-pole; Cod. B; gray

Item No.: 770-853
Plug for PCBs; straight; 3-pole; Cod. B; gray

Item No.: 770-253
Plug; 3-pole; Cod. B; gray

Item No.: 770-753
Snap-in plug; 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 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

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1.3.4 Strain relief

1.3.4.1 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; 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

1.3.5 Tool

1.3.5.1 Operating tool

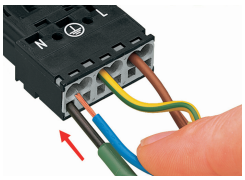
Item No.: 770-383
Operating tool; 3-way; green

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

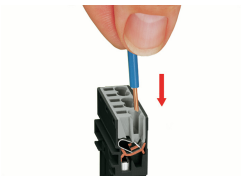
Installation Notes

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



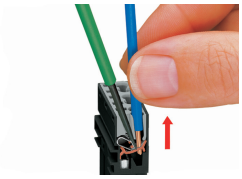
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.



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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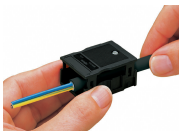
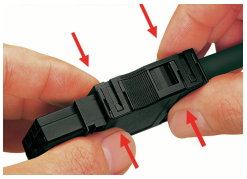
Installation



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.

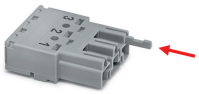


Prepare strain relief housing by snapping together upper and bottom part.

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

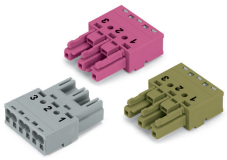
Coding

Simply cut off the coding pin from the socket.



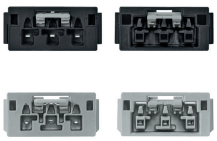
Insert coding pin into plug (break first) until it engages.

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