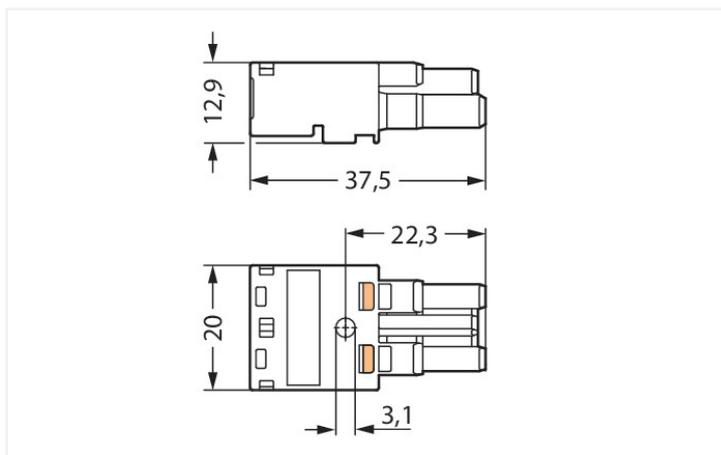




Color: ■ gray



Dimensions in mm

#### Female connector/socket WINSTA® MIDI with protection against mismatching

The WINSTA® MIDI female connector/socket with protection type IP20 supports rapid, correct installation. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to various requirements in seconds. The coding options reduce installation errors, allowing fast, secure wiring of all components. 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, robotics, and mechanical engineering. The rated current and voltage are important criteria for selecting a pluggable installation connector: They tell us about the product's domains of use. This product has a current rating of 25 A – so it is also suitable for high power loads. The WINSTA® MIDI product line allows total flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees error-free, time-saving installation and offers flexibility and customization for meeting all installation requirements.

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. Choose durability and quality – with marking from WAGO makes the electrical installation of electrical components significantly easier.

- pluggable installation connectors with protection against mismatching
- pre-assembled versions
- with B coding for controllers such as sun blinds and lighting fixtures
- ready to install and use immediately
- convenient installation and commissioning

## Notes

General safety information

**NOTICE: Observe installation and safety instructions!**

- Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden!
- Nicht unter Spannung/Last installieren!
- Nur für bestimmungsgemäßen Gebrauch einsetzen!
- Nationale Vorschriften/Normen/Richtlinien beachten!
- Technische Daten der Produkte beachten!
- Auf die richtige Polbelegung achten!
- Keine beschädigten/verschmutzten Komponenten verwenden!
- Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!
- Leiter bis zum Anschlag einführen!
- Nur mit Verriegelungsklinke und Zugentlastung verwenden!
- Originalzubehör verwenden!

**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
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## Connection Data

Clamping units	4
Total number of potentials	2

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross-section	4 mm <sup>2</sup> / 12 AWG
Solid conductor	0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG
Solid conductor; push-in termination	1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG
Stranded conductor	0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG
Fine-stranded conductor	0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1.5 mm <sup>2</sup> / 16 AWG
Strip length	9 mm / 0.35 inches
Pole number	2
Conductor entry direction to mating direction	0°

### Physical data

Pin spacing	10 mm / 0.394 inches
Width	20 mm / 0.787 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

### Mechanical data

Use	Control technology
Coding	B
Variable coding	No
Marking	1 2
Potential marking	1 2
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 <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)	<a href="#">Information on material specifications can be found here</a>
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	0.114 MJ
Weight	6.6 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	4050821541912
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
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### 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 Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

### Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	24-0095977-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 770-242



Documentation

Bid Text

770-242	19.02.2019	xml 2.95 KB	
770-242	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data

2D/3D Models 770-242



CAE data

EPLAN Data Portal 770-242



WSCAD Universe 770-242



ZUKEN Portal 770-242



1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



[Item No.: 771-8992/205-103](#)

pre-assembled connecting cable; Eca; Plug/open-ended; 2-pole; Cod. B; Control cable 2 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>; gray

[Item No.: 771-8992/005-103](#)

pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. B; Control cable 2 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>; gray

1.1.2 Distribution connector



[Item No.: 770-1704](#)

3-way distribution connector; 2-pole; Cod. B; 1 input; 3 outputs; gray



[Item No.: 770-1608](#)

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 2 locking levers; gray



[Item No.: 770-1658](#)

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; gray



[Item No.: 770-1651](#)

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; gray



[Item No.: 770-1751](#)

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; gray



[Item No.: 770-1601](#)

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; gray



[Item No.: 770-2601/082-000](#)

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; light turquoise



[Item No.: 770-1701](#)

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; gray

1.1.3 Male connector/plug



**Item No.: 770-252**

Plug; 2-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

1.2.2 Strain relief

1.2.2.1 Strain relief housing



**Item No.: 770-502/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; black



**Item No.: 770-512/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; white



**Item No.: 770-502/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black



**Item No.: 770-512/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; 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



**Item No.: 897-2003**

Protective cap; Type2; for sockets and plugs; PVC; red

1.3.2 Installation

1.3.2.1 Mounting accessories



**Item No.: 897-2100**

Mounting plate; for Snap-in; Plastic; for detectors and sensors ; Ø 200 mm; red



**Item No.: 770-317**

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; black



**Item No.: 770-337**

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; white

### 1.3.3 Tool

#### 1.3.3.1 Operating tool



Item No.: 770-382

Operating tool; 2-way; green

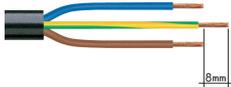


Item No.: 210-719

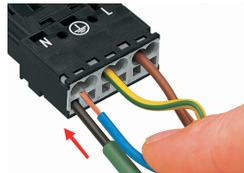
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

### 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

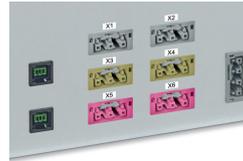


Simply cut off the coding pin from the socket.



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

Mismatching 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