

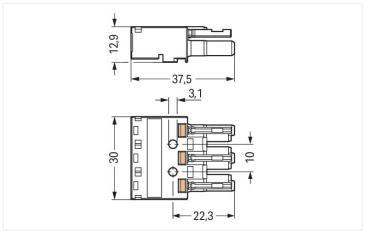




Color: white







Dimensions in mm

https://www.wago.com/770-223

### Female connector/socket WINSTA® MIDI rated current 25 A



The *WINSTA*® MIDI female connector/socket with protection against mismating supports rapid, correct installation. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to many different requirements in no time flat. The coding options reduce installation errors, allowing fast, maintenance-free 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 live elements. Thanks to the color coding and mechanical A coding of *WINSTA*® MIDI pluggable installation connectors, you can clearly distinguish different circuits. 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 – therefore it is also suitable for high power loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in can be found in a variety of projects you can use for quick, easy, flexible, and secure electrical installation.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and therefore more efficient, even more reliable, and error-free. Use of this pre-assembled system reduces assembly times and errors during installation at the construction site. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismating from WAGO.

- · protection against mismating eliminates errors
- · pre-assembled versions
- suitable for any application
- · ready to install and use immediately
- quick replacement of defective units during ongoing operation

Electrical data				
Ratings per	IEC	C/EN 60664	4-1	ĺ
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	250 V	-	-	
Rated surge voltage	4 kV	-	-	
Rated current	25 A	-	-	
General information				
Note on contact resistance	approx. 1 m $\Omega$ c approx. 0.25 m 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°

# Data Sheet | Item Number: 770-223 https://www.wago.com/770-223



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	General mains applications
Coding	A
Variable coding	Yes
Marking	L N
Potential marking	L N
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	white
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	0.165 MJ
Weight	9.6 g

https://www.wago.com/770-223



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	Вох
Country of origin	DE
GTIN	4044918252362
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status Compliant, No Exemption

### Approvals / Certificates

### General approvals









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Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61535	71-123228
CCA DEKRA Certification B.V.	IEC 61535	NL -84761
cURus Underwriters Laboratories Inc.	UL 1977	E45171
cURus Underwriters Laboratories Inc.	UL 1059	E 45172
VDE VDE Prüf- und Zertifizie- rungsinstitut	EN 61984	40002889

### Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

### 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 Llovds Register	IEC 61984	LR22429487TA

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## Downloads

### **Environmental Product Compliance**

#### Compliance Search

Environmental Product Compliance 770-223



### Documentation

Bid Text			
770-223	19.02.2019	xml 3.01 KB	<u>↓</u>
770-223	08.06.2015	doc 23.50 KB	$\underline{\downarrow}$

### CAD/CAE-Data

#### CAD data

2D/3D Models 770-223



CAE data

EPLAN Data Portal 770-223



ZUKEN Portal 770-223



### 1 Compatible Products

### 1.1 System counterpart

### 1.1.1 Cable assembly





### Item No.: 771-9993/206-102

pre-assembled connecting cable; Eca; Plug/open-ended; 3-pole; Cod. A; H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; white

### Item No.: 771-9993/006-102

pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; white

### 1.1.2 Distribution box







### Item No.: 899-631/395-000

Distribution box; Single-phase current (230 V); 1 input; 6 outputs; Cod. A; MIDI; black

### Item No.: 899-681/104-000

Distribution box; Single-phase current (230 V); 1 input; 7 outputs; Cod. A; MIDI; white

## Item No.: 899-631/327-000

Distribution box; Single-phase current (230 V); 2 inputs; 6 outputs; Cod. A; MIDI; black

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### 1.1.3 Distribution connector









#### Item No.: 770-657

3-way distribution connector; 3-pole; Cod. A; 1 input; 3 outputs; white

#### Item No.: 770-658

5-way distribution connector; 3-pole; Cod. A; 1 input; 5 outputs; white

#### Item No.: 770-688

Distribution connector for switches; Single-pole and throttle two-way circuit; 3pole; Cod. A/S; 1 input; 5 outputs; white

#### Item No.: 770-687

Distribution connector for switches; Single-pole switch and series circuit; 3-pole; Cod. A/S; 1 input; 5 outputs; white

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h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on both sides; 2 locking levers; white

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

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### Item No.: 770-684

h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

#### Item No.: 770-686

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

#### Item No.: 770-6223

Linect® T-connector; 3-pole; Cod. A; 1 input; 2 outputs; white

#### Item No.: 770-656

Item No.: 770-833

T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

### Item No.: 770-665

T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads: white

## 1.1.4 Male connector/plug





Item No.: 770-833/011-000





Plug for PCBs; straight; 3-pole; Cod. A;



Plug; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white



### Item No.: 770-233/002-000

Plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white

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Plug for PCBs; angled; 3-pole; Cod. A; whi-



Plug; with strain relief housing; 3-pole;



Snap-in plug; 3-pole; Cod. A; 4,00 mm<sup>2</sup>;

### Item No.: 770-733/007-000

Snap-in plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white

## Item No.: 770-133

te

Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white

## Item No.: 770-233/035-050

Cod. A; 4,00 mm<sup>2</sup>; white

white

### 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.: 770-503

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

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### 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; whi-

### 1.3.3 Marking

#### 1.3.3.1 Marker





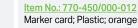




Item No.: 770-450/000-006

Marker card; Plastic; blue

Item No.: 770-450/000-001 Marker card; Plastic; green



Item No.: 770-450/000-005 Marker card; Plastic; red

Item No.: 770-450 Marker card; Plastic; white Item No.: 770-450/000-002 Marker card; Plastic; yellow

#### 1.3.4 Shield termination

### 1.3.4.1 Shield termination



Item No.: 770-523

Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

### 1.3.5 Strain relief

### 1.3.5.1 Strain relief housing







Item No.: 770-513/021-000

Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; white







Item No.: 770-503/021-000

Strain relief housing; 3-pole; for 1 cable; 9.0 ... 13.0 mm; 71 mm; black

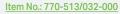


Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; black

Strain relief housing; 3-pole; for 2 cables; 4.5 ... 8.0 mm; 55 mm; white

Item No.: 770-513/023-000





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

Item No.: 770-503/023-000

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

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### 1.3.5.1 Strain relief housing





### 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

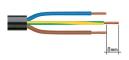
Operating tool; 3-way; green

### <u>Item No.: 210-719</u>

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).

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at:: www.wago.com

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