

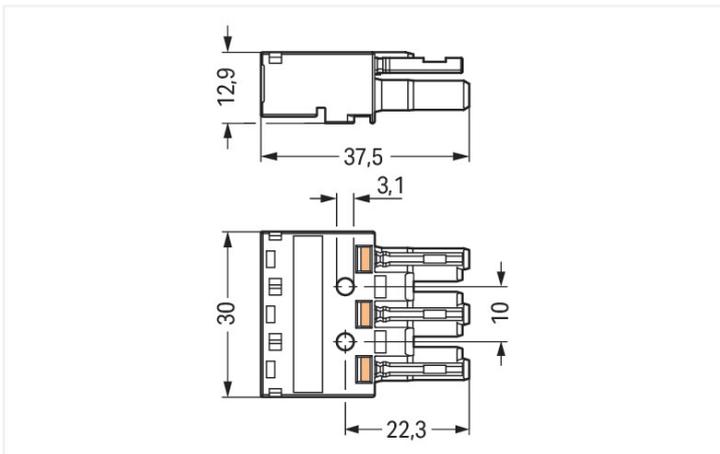
## Data Sheet | Item Number: 770-223

Socket; 3-pole; Cod. A; white

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



Color: ■ white



Dimensions in mm

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

The *WINSTA*® MIDI female connector/socket rated current 25 A allows assembly of solid and fine-stranded conductors. WAGO pluggable installation connectors are useful when specifications repeat or are distributed on a specified grid, for example for installing grid lighting or flush-mount lighting. The coding options reduce installation errors, allowing fast, maintenance-free 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!)). The *WINSTA*® MIDI pluggable installation connector with A coding in white or black is usually used for general mains applications in power distribution. This pluggable installation connector can be employed for a voltage load of up to 25 A. Thus, it can also be used for high power loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates precise electrification. Due to the included test slot, it is possible to check connections even when they are plugged in. This saves time, labor, and money.

Lower costs through fast commissioning and elimination of service expenses – solutions from *WINSTA*® MIDI

*WINSTA*® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It offers fast, secure and, above all, error-free installation of components and cables. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP20 from WAGO.

- protection against mismatching eliminates errors
- for automation controllers
- for any mains application
- custom-engineered solutions

- rapid, structured electrical installation

## 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!**

## 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	6
Total number of potentials	3

### 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	3
Conductor entry direction to mating direction	0°

### 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	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 <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	white
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	0.165 MJ
Weight	9.7 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	4044918252362
Customs tariff number	85366990990

### Product Classification

UNSPSC	39121409
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.	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 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 770-223

Documentation

Bid Text			
770-223	19.02.2019	xml 3.01 KB	
770-223	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data
2D/3D Models 770-223

CAE data
EPLAN Data Portal 770-223
WSCAD Universe 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 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; white

**Item No.: 771-9993/006-102**  
pre-assembled interconnecting cable;  
Eca; Socket/plug; 3-pole; Cod. A; H05VV-  
F 3G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; 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

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; 3-pole; 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



**Item No.: 770-683**  
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on both sides; 2 locking levers; white

**Item No.: 770-685**  
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; white

**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**  
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; angled; 3-pole; Cod. A; white

**Item No.: 770-833**  
Plug for PCBs; straight; 3-pole; Cod. A; white

**Item No.: 770-233**  
Plug; 3-pole; Cod. A; white

**Item No.: 770-233/002-000**  
Plug; with direct ground contact; 3-pole; Cod. A; white



**Item No.: 770-133**  
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white

**Item No.: 770-233/035-050**  
Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white

**Item No.: 770-733**  
Snap-in plug; 3-pole; Cod. A; white

**Item No.: 770-733/007-000**  
Snap-in plug; with direct ground contact; 3-pole; Cod. A; 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

## 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

### 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.: 770-503/021-000**

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.: 770-513/032-000**

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

### 1.3.6 Tool

#### 1.3.6.1 Operating tool



**Item No.: 770-383**

Operating tool; 3-way; green

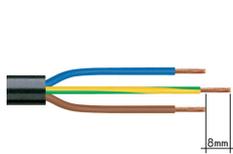


**Item No.: 210-719**

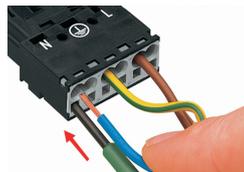
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

### 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.

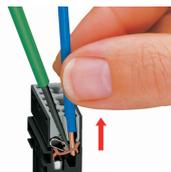


Insert the stripped solid conductor until it hits the backstop.



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.

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).