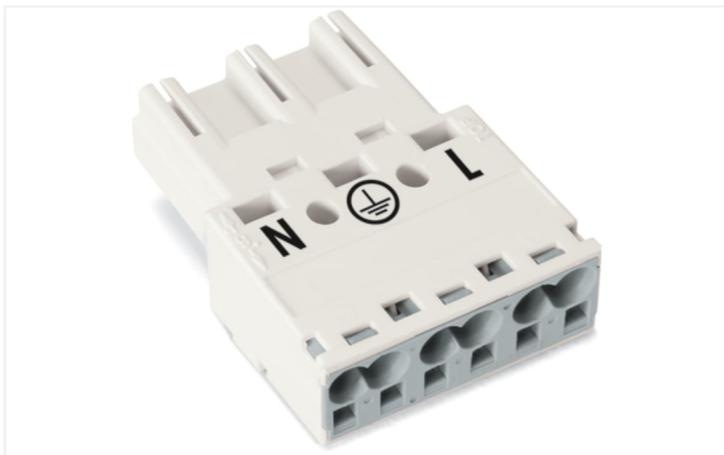


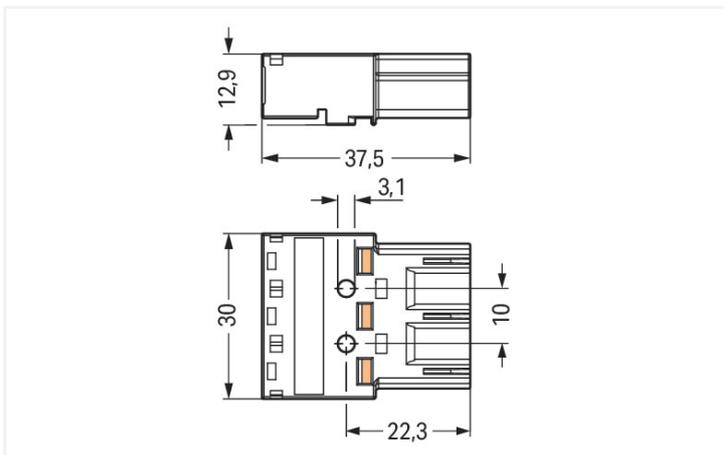
# Data Sheet | Item Number: 770-233

Plug; 3-pole; Cod. A; white

<https://www.wago.com/770-233>



Color: ■ white



Dimensions in mm

## Male connector/plug WINSTA® MIDI A coding

The WINSTA® MIDI male connector/plug with protection against mismatching is the pluggable solution for your use in control cabinets, for lighting connections or on PCBs. 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 seconds. For greater protection in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismatching. The pluggable installation connector offers touch-proof protection with live components 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!)). Standard mains applications for almost any domain of use can be realised with WINSTA® MIDI pluggable installation connectors with A coding. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is also suitable for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in a broad range of individual products you can use for quick, easy, flexible, and secure installation.

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. 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
- simple circuits
- for any mains application
- ready for immediate use
- 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			Approvals per	UL 1977
Overvoltage category	III	III	II	Rated voltage	600 V
Pollution degree	3	2	2	Rated current	23 A
Nominal voltage	250 V	-	-		
Rated impulse withstand voltage	4 kV	-	-		
Rated current	25 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	<b>Connection 1</b>	
Total number of potentials	3	Connection technology	Push-in CAGE CLAMP®
PE function	Preceding PE contact	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

### Connection 1

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	N ⊕ L
Potential marking	N ⊕ L
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 <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	0.193 MJ
Weight	9.9 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	4044918254182
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
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### Approvals / Certificates

#### General approvals



#### General approvals

VDE  
VDE Prüf- und Zertifizierungsinstitut

EN 61984

40002889

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

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 Shipping	-	24-0095977-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 770-233

Documentation

Bid Text			
770-233	19.02.2019	xml 3.01 KB	
770-233	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data
2D/3D Models 770-233

CAE data
EPLAN Data Portal 770-233
WSCAD Universe 770-233
ZUKEN Portal 770-233

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



**Item No.: 771-9993/106-102**  
pre-assembled connecting cable; Eca; Socket/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.: 899-631/180-000**  
Distribution box; Motion/presence detector; 1 input; 5 outputs; Cod. A; MIDI; black



**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



**Item No.: 899-631/478-000**  
Distribution box; Single-pole switch circuit; 1 input; 7 outputs; Cod. A, S; MIDI; black



**Item No.: 899-681/105-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 6 outputs; Cod. A; MIDI; white



**Item No.: 899-681/100-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; white



**Item No.: 899-681/144-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 2 inputs; 6 outputs; Cod. A; MIDI; white



**Item No.: 899-681/123-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); supply cable entry; 6 outputs; Cod. A; MIDI; white



**Item No.: 899-631/189-000**  
Distribution box; Two-way circuit; 1 input; 7 outputs; Cod. A, S; 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



**Item No.: 770-661**  
Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 2 outputs; with cable connection on the input side; white



**Item No.: 770-690**  
Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; white

1.1.4 Female connector/socket



**Item No.: 770-723**  
Snap-in socket; 3-pole; Cod. A; white



**Item No.: 770-723/009-000**  
Snap-in socket; with protruding mating face; 3-pole; Cod. A; white



**Item No.: 770-823/011-000**  
Socket for PCBs; angled; 3-pole; Cod. A; white



**Item No.: 770-823**  
Socket for PCBs; straight; 3-pole; Cod. A; white



**Item No.: 770-223**  
Socket; 3-pole; Cod. A; white



**Item No.: 770-123**  
Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; white



**Item No.: 770-223/035-050**  
Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm<sup>2</sup>; 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

## 1.3 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

### 1.3.3 Installation

#### 1.3.3.1 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

### 1.3.4 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 Shield termination

#### 1.3.5.1 Shield termination



**Item No.: 770-523**

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

### 1.3.6 Strain relief

#### 1.3.6.1 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

### 1.3.7 Tool

#### 1.3.7.1 Operating tool



**Item No.: 770-383**

Operating tool; 3-way; green

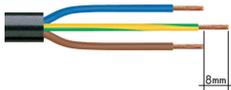


**Item No.: 210-719**

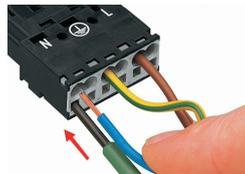
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

### 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.

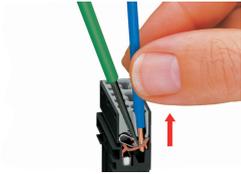


Insert the stripped solid conductor until it hits the backstop.



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).