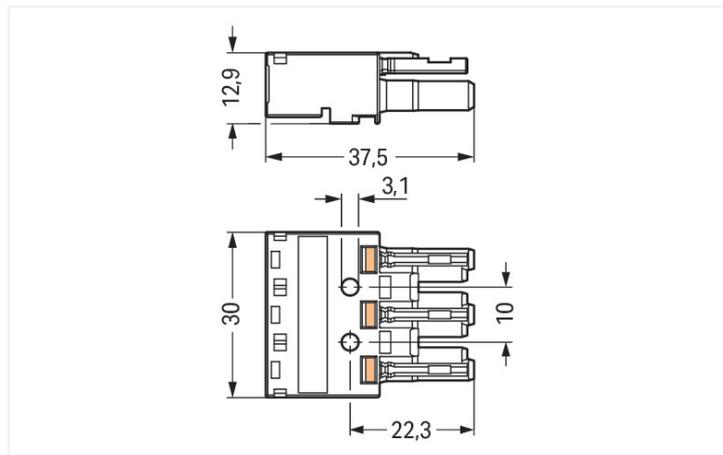


## Data Sheet | Item Number: 770-243/081-000

Socket; 3-pole; Cod. B; 4,00 mm<sup>2</sup>; gray

<https://www.wago.com/770-243/081-000>



Color: ■ gray

Similar to illustration

Dimensions in mm

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

The *WINSTA*® MIDI female connector/socket 3-pole supports rapid, correct installation. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to various 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 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 provide information about possible domains of use and applications. This product has a current rating of 25 A – as a result it is suitable for high power loads. Our *WINSTA*® MIDI product line achieves maximum flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it ensures time-saving, error-free installation and offers flexibility and customization for meeting an enormous variety of 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. Now you can also cut installation costs without compromising quality and safety: with protection type IP20 eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- for automation controllers
- with B coding for use in process automation, such as lighting technology, among other examples
- custom-engineered solutions
- rapid, structured electrical installation

## 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®
		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	Control technology
Coding	B
Variable coding	Yes
Marking	1 2 5
Potential marking	1 2 5
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)	<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	0.162 MJ
Weight	9.6 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

PU (SPU)	100 pcs
Packaging type	Box
Country of origin	PL
GTIN	4050821517542
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
cURus Underwriters Laboratories Inc.	UL 1977	E45171
cURus Underwriters Laboratories Inc.	UL 1059	E 45172

**Downloads**

**Environmental Product Compliance**

<b>Compliance Search</b>
Environmental Product Compliance 770-243/081-000

**CAD/CAE-Data**

<b>CAD data</b>
2D/3D Models 770-243/081-000

<b>CAE data</b>
WSCAD Universe 770-243/081-000

**1 Compatible Products**

**1.1 System counterpart**

**1.1.1 Male connector/plug**



[Item No.: 770-253/081-000](#)  
Plug; 3-pole; Cod. B; 4,00 mm<sup>2</sup>; 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

### 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

### 1.3.4.1 Strain relief housing



**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**

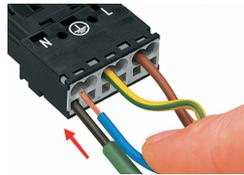
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

### 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.

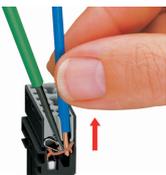


Insert the stripped solid conductor until it hits the backstop.



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.

### 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).

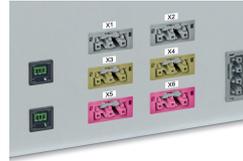
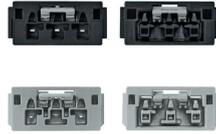
## Coding



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