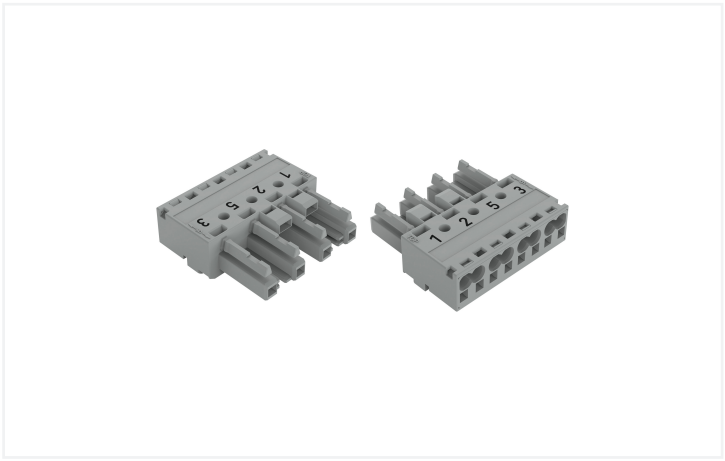
# Data Sheet | Item Number: 770-244/081-000

Socket; 4-pole; Cod. B; 4,00 mm²; gray

https://www.wago.com/770-244/081-000



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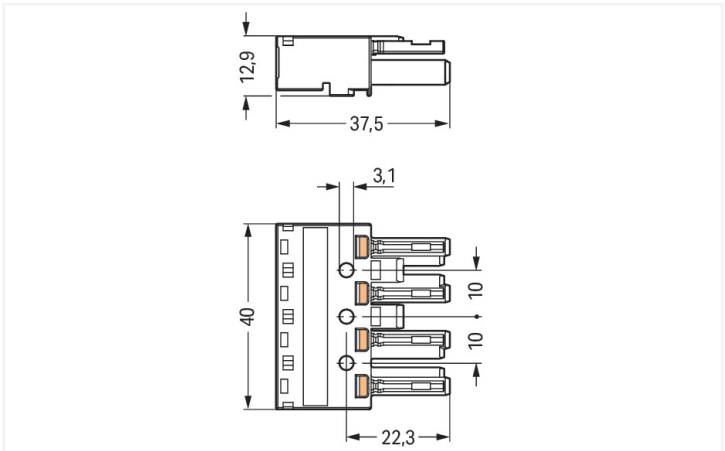



Dimensions in mm

Female connector/socket *WINSTA*® MIDI B coding

For signal and power transmission: The *WINSTA*® MIDI female connector/socket B coding. Our pluggable installation connectors with spring pressure connection technology work without screw connections. They allow fast, efficient, error-free installation in a large number of applications. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismating. The pluggable installation connector offers protection against contact 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!)). Solutions like the *WINSTA*® MIDI pluggable installation connectors with B coding are appropriate for process control, for example, for lighting or within data networks. This pluggable installation connector can be used for electrical currents up to 25 A. Thus the product is ideally suitable for high power loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates safe electrification. Due to the integrated test slot, it is possible to check connections even when they are plugged in. This saves time, labor, and money.

Push-in CAGE CLAMP® spring pressure connection technology – pluggable installation instead of laborious screw connections!

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It allows error-free installation of cables and components, quickly and reliably. Take advantage 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 mismating eliminates errors
- pre-assembled versions
- with B coding for controllers such as sun blinds and lighting fixtures
- custom-engineered solutions
- quick replacement of defective units during ongoing operation

## Notes

| | |
|---|---|
| General safety information | **NOTICE: Observe installation and safety instructions!**<br><br>• Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden!<br>• Nicht unter Spannung/Last installieren!<br>• Nur für bestimmungsgemäßen Gebrauch einsetzen!<br>• Nationale Vorschriften/Normen/Richtlinien beachten!<br>• Technische Daten der Produkte beachten!<br>• Auf die richtige Polbelegung achten!<br>• Keine beschädigten/verschmutzten Komponenten verwenden!<br>• Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!<br>• Leiter bis zum Anschlag einführen!<br>• Nur mit Verriegelungsklinke und Zugentlastung verwenden!<br>• Originalzubehör verwenden!<br><br>**To be sold only with installation instructions!** |

## Notes

| | |
|---|---|
| Variants: | Other pole markings<br>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 | 400 V | - | - |
| Rated impulse withstand voltage | 6 kV | - | - |
| Rated current | 25 A | - | - |

| Ratings per IEC/EN – Notes | |
|---|---|
| Rated current (note) | 25 A for 3-pole load<br>20 A for 4-pole load |

| Approvals per | UL 1977 |
|---|---|
| Rated voltage | 600 V |
| Rated current | 23 A |

| General information | |
|---|---|
| Note on contact resistance | approx. 1 mΩ of contact resistance<br>approx. 0.25 mΩ contact transition plug/socket |

## Connection Data

| | |
|---|---|
| Clamping units | 8 |
| Total number of potentials | 4 |

| Connection 1 | |
|---|---|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Operating tool<br>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 | 4 |
| Conductor entry direction to mating direction | 0 ° |

## Physical data

| | |
|---|---|
| Pin spacing | 10 mm / 0.394 inches |
| Width | 40 mm / 1.575 inches |
| Height | 12.9 mm / 0.508 inches |
| Depth | 37.5 mm / 1.476 inches |


Continued on next page

## Mechanical data

| | |
|---|---|
| Use | Control technology |
| Coding | B |
| Variable coding | Yes |
| Marking | 1 2 5 3 |
| Potential marking | 1 2 5 3 |
| 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:<br>a.) plugging different numbers of poles<br>b.) plugging while rotated 180<br>c.) plugging while laterally staggered<br>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 | 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 | 0.212 MJ |
| Weight | 12.7 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

| | |
|---|---|
| PU (SPU) | 50 pcs |
| Packaging type | Box |
| Country of origin | PL |
| GTIN | 4050821517559 |
| 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 |

## 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

**Compliance Search**

Environmental Product Compliance 770-244/081-000

## CAD/CAE-Data

**CAD data**

2D/3D Models 770-244/081-000

**CAE data**

WSCAD Universe 770-244/081-000

# 1 Compatible Products

## 1.1 System counterpart

### 1.1.1 Male connector/plug

Item No.: 770-254/081-000
Plug; 4-pole; Cod. B; 4,00 mm²; 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.: 770-504/023-000
Strain relief housing; 4-pole; for 2 cables; 5.0 … 9.0 mm; 55 mm; black

Item No.: 770-514/023-000
Strain relief housing; 4-pole; for 2 cables; 5.0 … 9.0 mm; 55 mm; white

Item No.: 770-504
Strain relief housing; 4-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; black

Item No.: 770-514
Strain relief housing; 4-pole; for 2 cables; 9.0 … 13.0 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

Item No.: 897-2005
Protective cap; Type4; for sockets and plugs; PVC; red

### 1.3.2 Installation

#### 1.3.2.1 Mounting accessories

Item No.: 770-319
Snap-in frame; 4-pole; 1.0 … 3.0 mm; black



Item No.: 770-339
Snap-in frame; 4-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.: 770-504/020-000
Strain relief housing; 4-pole; for 1 cable; 11.5 … 16.5 mm; 71 mm; black

## 1.3.5 Tool

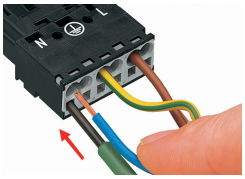
### 1.3.5.1 Operating tool

Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

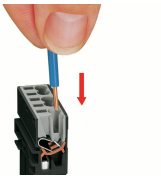
## Installation Notes

### 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



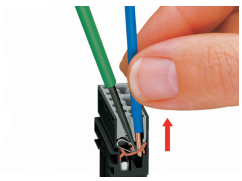
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.



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.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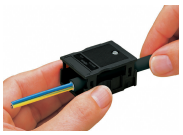
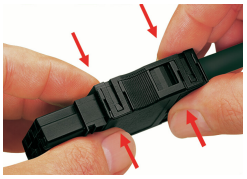
## Installation



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.

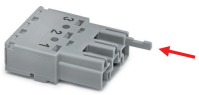


Prepare strain relief housing by snapping together upper and bottom part.

Tighten strain relief screw with screwdriver (2.5 mm blade width).

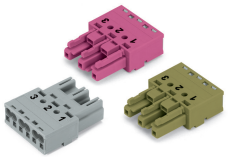
## Coding

Simply cut off the coding pin from the socket.



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

## Mismating 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