

## Item description

### Male connector/plug *WINSTA*® MIDI B coding

The *WINSTA*® MIDI male connector/plug with protection against mismatching allows assembly of solid and fine-stranded conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to an enormous variety of requirements in no time flat. For greater protection in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismatching. 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 suitable for applications involving process control, such as for lighting or in data networks. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is especially suitable for high power loads. Our *WINSTA*® MIDI product line allows flexibility for the installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees time-saving, error-free installation and offers customization for meeting all installation requirements.

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

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

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We are always happy to take your call at +49 (571) 887-44222.



WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It offers fast, secure and, above all, error-free installation of components and cables. Choose quality and durability – with marking from WAGO makes the installation of electrical components visibly easier.

- effective protection against mismatching
- pre-assembled versions
- for automation controllers
- exact dimensions
- quick replacement of defective units during ongoing operation

## Data

### Notes

Variants:

Other pole markings

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## Electrical data

### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	400 V
Rated impulse voltage (III/3)	6 kV
Rated current	25 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

### Ratings per IEC/EN – Notes

Note (rated current)

25 A for 3-pole load  
20 A for 4- and 5-pole load

### Ratings per UL 1977

Note for the US market

Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 16 A and voltages up to 600 V. For further information, please contact your local sales office.

Rated voltage (UL 1977)	600 V
Rated current UL 1977	23 A

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## General information

Note on contact resistance

approx. 1 mΩ of contact resistance  
approx. 0.25 mΩ contact transition plug/socket

## Connection data

Connection points	10
Total number of potentials	5

## Connection 1

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	5
Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	10 mm / 0.394 inches
Width	50 mm / 1.969 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

## Mechanical Data

Application	Control technology
Coding	B
Variable coding	Yes
Marking	1L 2L L $\frac{1}{2}$ N
Potential marking	1L 2L L $\frac{1}{2}$ N

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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)	Information on material specifications can be found here
Color	gray
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	0.419 MJ
Weight	16.6 g

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## Environmental requirements

Processing temperature	-5 ... +40 °C
Continuous operating temperature	-35 ... +85 °C
Note on continuous operating temperature	Insulating parts for temperatures $\leq 105$ °C

## Commercial data



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)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821486275
Customs tariff number	85366990990

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	cURus Underwriters Laboratories Inc.	UL 1977	E45171
	cURus Underwriters Laboratories Inc.	UL 1059	E 45172

## Counterpart



Item no. 770-245/064-000  
Socket; 5-pole; Cod. B; 4,00 mm<sup>2</sup>; gray

[www.wago.com/770-245/064-000](http://www.wago.com/770-245/064-000)

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

**Item no. 770-845/011-000/064-000**

Socket for PCBs; angled; 5-pole; Cod. B; gray

[www.wago.com/770-845/011-000/064-000](http://www.wago.com/770-845/011-000/064-000)**Item no. 770-745/064-000**

Snap-in socket; 5-pole; Cod. B; 4,00 mm²; gray

[www.wago.com/770-745/064-000](http://www.wago.com/770-745/064-000)**Item no. 770-845/064-000**

Socket for PCBs; straight; 5-pole; Cod. B; gray

[www.wago.com/770-845/064-000](http://www.wago.com/770-845/064-000)

## Required accessories

### Strain relief

#### Strain relief housing

**Item no.: 770-505/021-000**

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; black

[www.wago.com/770-505/021-000](http://www.wago.com/770-505/021-000)**Item no.: 770-505/023-000**

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black

[www.wago.com/770-505/023-000](http://www.wago.com/770-505/023-000)**Item no.: 770-505**

Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black

[www.wago.com/770-505](http://www.wago.com/770-505)**Item no.: 770-515**

Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white

[www.wago.com/770-515](http://www.wago.com/770-515)**Item no.: 770-515/023-000**

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white

[www.wago.com/770-515/023-000](http://www.wago.com/770-515/023-000)**Item no.: 770-515/021-000**

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; white

[www.wago.com/770-515/021-000](http://www.wago.com/770-515/021-000)

### Locking levers

#### Locking system

**Item no.: 770-121**

Locking lever; for flying leads; for manual operation; white

[www.wago.com/770-121](http://www.wago.com/770-121)**Item no.: 770-131**

Locking lever; for flying leads; for tool operation; white

[www.wago.com/770-131](http://www.wago.com/770-131)

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**Item no.: 770-101**

Locking lever; for flying leads; for manual operation; black

[www.wago.com/770-101](http://www.wago.com/770-101)**Item no.: 770-111**

Locking lever; for flying leads; for tool operation; black

[www.wago.com/770-111](http://www.wago.com/770-111)

## Optional accessories

### Marking accessories

#### Marker

**Item no.: 770-450/000-002**

Marker card; Plastic; yellow

[www.wago.com/770-450/000-002](http://www.wago.com/770-450/000-002)**Item no.: 770-450/000-001**

Marker card; Plastic; green

[www.wago.com/770-450/000-001](http://www.wago.com/770-450/000-001)**Item no.: 770-450/000-005**

Marker card; Plastic; red

[www.wago.com/770-450/000-005](http://www.wago.com/770-450/000-005)**Item no.: 770-450**

Marker card; Plastic; white

[www.wago.com/770-450](http://www.wago.com/770-450)**Item no.: 770-450/000-006**

Marker card; Plastic; blue

[www.wago.com/770-450/000-006](http://www.wago.com/770-450/000-006)**Item no.: 770-450/000-012**

Marker card; Plastic; orange

[www.wago.com/770-450/000-012](http://www.wago.com/770-450/000-012)

### Coding

#### Coding

**Item no.: 770-401**

Coding pin; for plugs; Plastic; gray

[www.wago.com/770-401](http://www.wago.com/770-401)

### Tool

#### Operating tool

**Item no.: 210-719**

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

[www.wago.com/210-719](http://www.wago.com/210-719)

### Cover

#### Cover

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Item no.: 770-360  
Lockout cap; for plugs; 5-pole; separable; yellow

[www.wago.com/770-360](http://www.wago.com/770-360)



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

[www.wago.com/897-2005](http://www.wago.com/897-2005)

Mounting

Mounting accessories



Item no.: 770-320  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black

[www.wago.com/770-320](http://www.wago.com/770-320)



Item no.: 770-321  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black

[www.wago.com/770-321](http://www.wago.com/770-321)



Item no.: 770-340  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; white

[www.wago.com/770-340](http://www.wago.com/770-340)



Item no.: 770-341  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white

[www.wago.com/770-341](http://www.wago.com/770-341)

Downloads  
Documentation

Bid Text

770-255/064-000 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
770-255/064-000 doc - Datei	2015 Jun 8	doc 24.6 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 770-255/064-000	URL	Download
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CAE data

WSCAD Universe 770-255/064-000	URL	Download
ZUKEN Portal 770-255/064-000	URL	Download
WSCAD Universe 770-255/064-000	URL	Download

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## Asset Administration Shell

Asset Administration Shell 770-255/064-000

URL

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 770-255/064-000

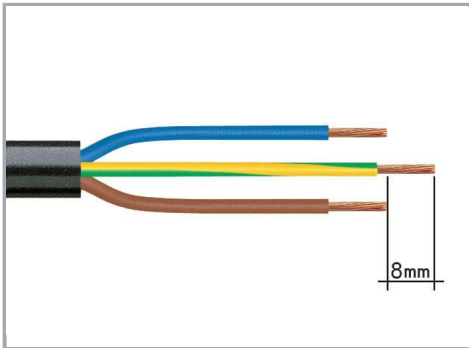
URL

Download

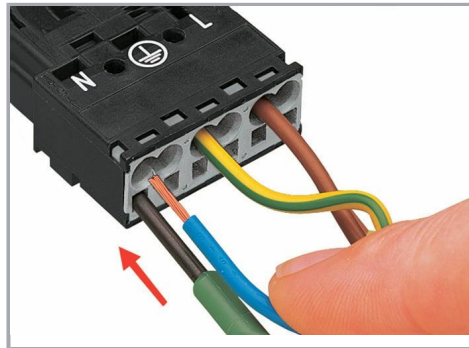
Plug; 5-pole; Cod. B; 4,00 mm<sup>2</sup>; gray

## Installation Notes

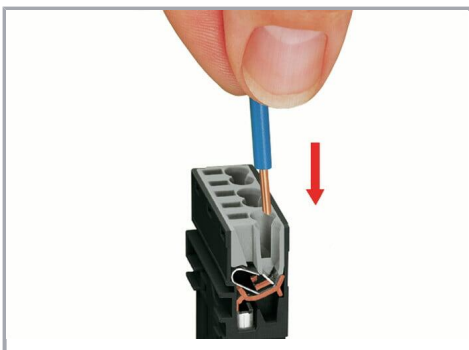
### Conductor termination



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

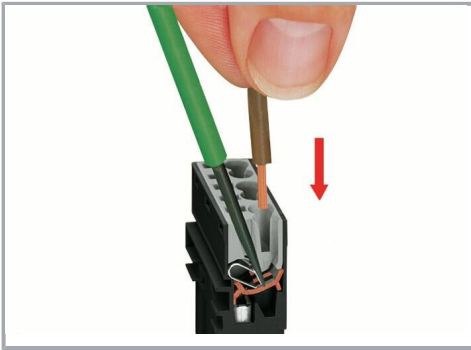


To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.



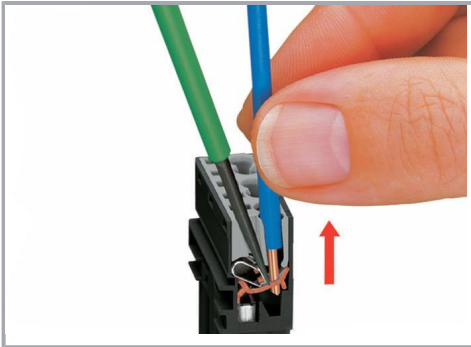
Insert the stripped solid conductor until it hits the backstop.

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



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.

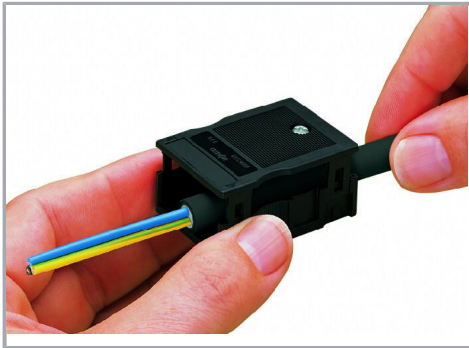
#### Conductor removal



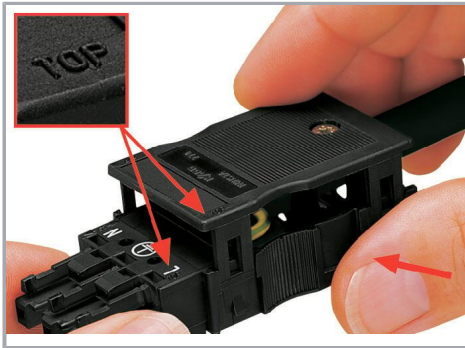
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

#### Installation

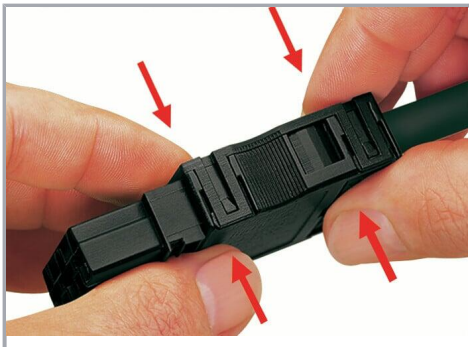
Subject to changes. Please also observe the further product documentation!



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.

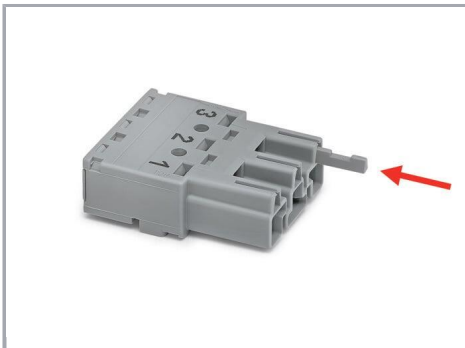


Tighten strain relief screw with screwdriver (2.5 mm blade width).

## Coding



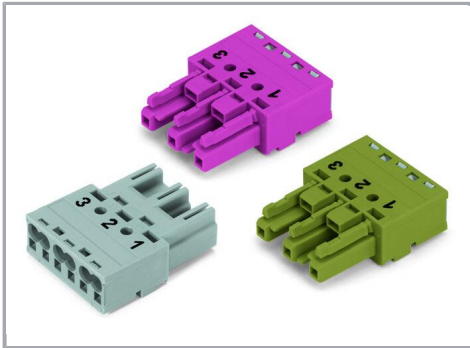
Simply cut off the coding pin from the socket.



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

## Mismatching protection

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

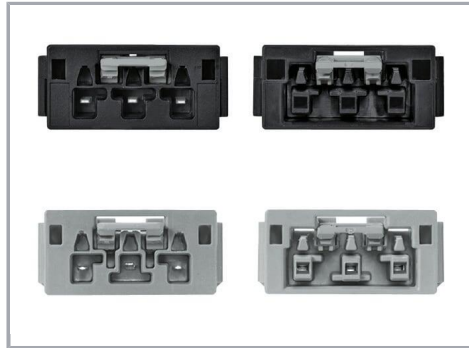


B-coded connectors with different colors can be plugged together.

**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

## Product family

### WINSTA® MIDI

[Show all products from the family](#)

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