

## Item description

Male connector/plug **WINSTA®** MIDI with protection type IP20

Use effective pluggable connections instead of laborious screw connections: With the *WINSTA*® MIDI male connector/plug 2-pole. WAGO pluggable installation connectors are used when criteria repeat or are planned on a defined grid, for example for installing grid lighting or flush-mount lighting. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. 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!)). Pluggable installation connectors with B coding from the *WINSTA*® MIDI line are available in gray, light green, or pink, allowing you to distinguish different circuits, for example for light, pumps or, sun blinds. Your own pole marking is possible as well. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is especially suitable for high power loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates safe electrification. Thanks to the integrated test slot, it is possible to check connections even when they are plugged in. That saves time and reduces installation labor and costs.

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

WINSTA® is the pluggable connection system that is optimally tailored to the strict requirements of electrical installation. It allows fast, secure and, above all, error-free installation of components and cables. Now you can also reduce installation costs without compromising safety and quality:

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

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with marking eliminates the need for servicing and prevents unnecessary downtime.

- 
- effective protection against mismating
- pre-assembled versions
- for automation controllers
- custom-engineered solutions
- convenient installation and commissioning

## 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)	250 V
Rated impulse voltage (III/3)	4 kV
Rated current	25 A
Legend (ratings)	(III / 3) $\triangleq$ Overvoltage category III / Pollution degree 3

### 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

## General information

Note on contact resistance	approx. 1 m $\Omega$ of contact resistance approx. 0.25 m $\Omega$ contact transition plug/socket
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## Connection data

Connection points	4
Total number of potentials	2

## 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	2
Conductor entry direction to mating direction	0 °

## Physical data

Pin spacing	10 mm / 0.394 inches
Width	20 mm / 0.787 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

## Mechanical Data

Application	Control technology
Coding	B
Variable coding	No
Marking	2 1
Potential marking	2 1
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)

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

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 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)

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	0.137 MJ
Weight	6.4 g

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

## 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)
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)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821541875
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
	CCA DEKRA Certification B.V.	IEC 61984	NL-32104
	CCA DEKRA Certification B.V.	EN 61984	2173495.01

	cURus Underwriters Laboratories Inc.	UL 1977	E45171
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	cURus Underwriters Laboratories Inc.	UL 1059	E 45172
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## Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1868589- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	<b>LR</b> Lloyds Register	IEC 61984	LR22429487TA

## Counterpart

	<b>Item no.770-1601</b> T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; gray	<a href="http://www.wago.com/770-1601">www.wago.com/770-1601</a>
	<b>Item no.770-1608</b> h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 2 locking levers; gray	<a href="http://www.wago.com/770-1608">www.wago.com/770-1608</a>
	<b>Item no.770-1651</b> h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; gray	<a href="http://www.wago.com/770-1651">www.wago.com/770-1651</a>
	<b>Item no.770-1658</b> h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; gray	<a href="http://www.wago.com/770-1658">www.wago.com/770-1658</a>
	<b>Item no.770-1704</b> 3-way distribution connector; 2-pole; Cod. B; 1 input; 3 outputs; gray	<a href="http://www.wago.com/770-1704">www.wago.com/770-1704</a>

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**Item no.770-1701**

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; gray

[www.wago.com/770-1701](http://www.wago.com/770-1701)**Item no.770-1751**

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; gray

[www.wago.com/770-1751](http://www.wago.com/770-1751)**Item no.770-242**Socket; 2-pole; Cod. B; 4,00 mm<sup>2</sup>; gray[www.wago.com/770-242](http://www.wago.com/770-242)**Item no.771-8992/005-103**pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. B; Control cable 2 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>; gray[www.wago.com/771-8992/005-103](http://www.wago.com/771-8992/005-103)**Item no.771-8992/105-103**pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. B; Control cable 2 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>; gray[www.wago.com/771-8992/105-103](http://www.wago.com/771-8992/105-103)**Required accessories****Strain relief**

Strain relief housing

**Item no.: 770-502/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black

[www.wago.com/770-502/041-000](http://www.wago.com/770-502/041-000)**Item no.: 770-502/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; black

[www.wago.com/770-502/042-000](http://www.wago.com/770-502/042-000)**Item no.: 770-512/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; white

[www.wago.com/770-512/041-000](http://www.wago.com/770-512/041-000)**Item no.: 770-512/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; white

[www.wago.com/770-512/042-000](http://www.wago.com/770-512/042-000)**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)**Item no.: 770-101**

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

[www.wago.com/770-101](http://www.wago.com/770-101)

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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

Cover

Cover



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.: 897-2003

Protective cap; Type2; for sockets and plugs; PVC; red

[www.wago.com/897-2003](http://www.wago.com/897-2003)

## Mounting

Mounting accessories



Item no.: 770-317

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; black

[www.wago.com/770-317](http://www.wago.com/770-317)



Item no.: 770-337

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; white

[www.wago.com/770-337](http://www.wago.com/770-337)



Item no.: 897-2100

Mounting plate; for Snap-in; Plastic; for detectors and sensors ; Ø 200 mm; red

[www.wago.com/897-2100](http://www.wago.com/897-2100)

## Tool

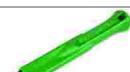
Operating tool



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)



Item no.: 770-382

Operating tool; 2-way; green

[www.wago.com/770-382](http://www.wago.com/770-382)

## Downloads

### Documentation

#### Bid Text

770-252

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## CAD/CAE-Data

### CAD data

2D/3D Models 770-252

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### CAE data

EPLAN Data Portal 770-252

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ZUKEN Portal 770-252

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WSCAD Universe 770-252

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## Asset Administration Shell

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 770-252

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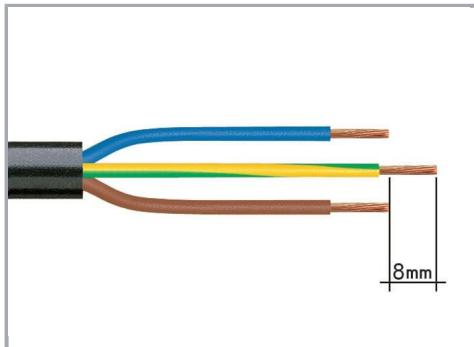
Download

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

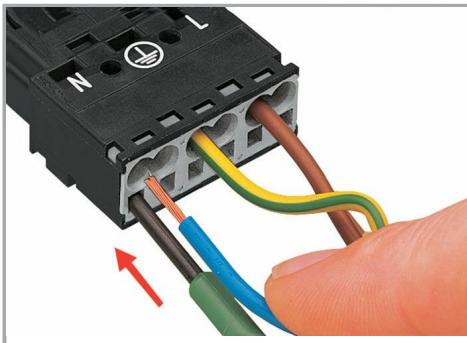
## Installation Notes

### Conductor termination

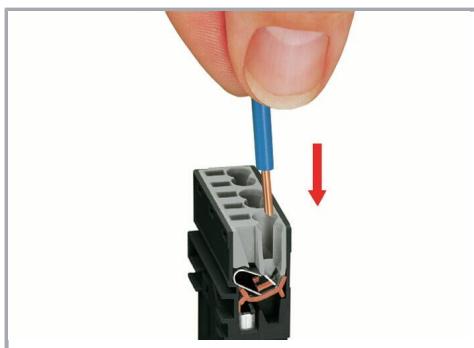
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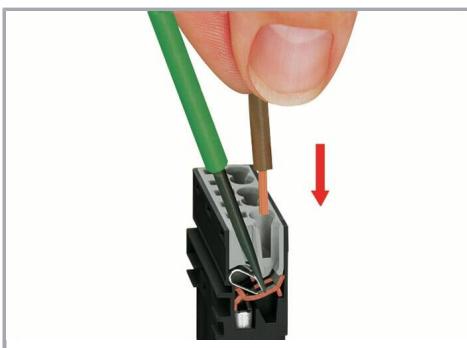
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

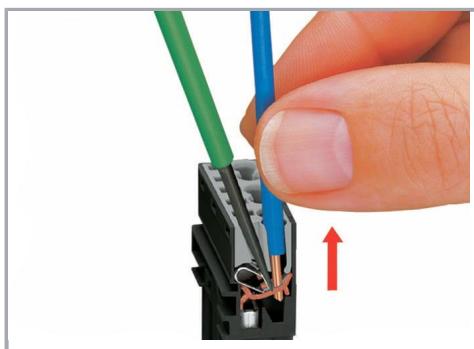


Insert the stripped solid conductor until it hits the backstop.



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.

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

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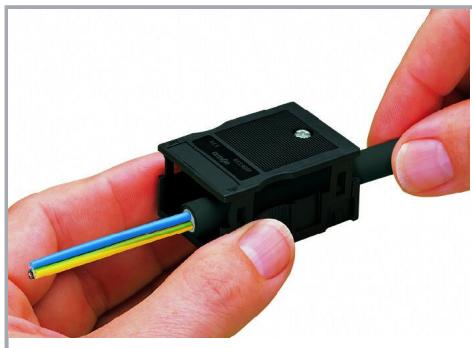
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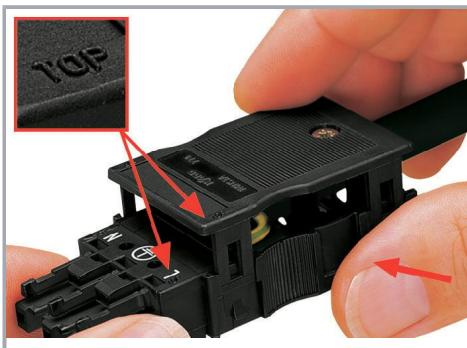
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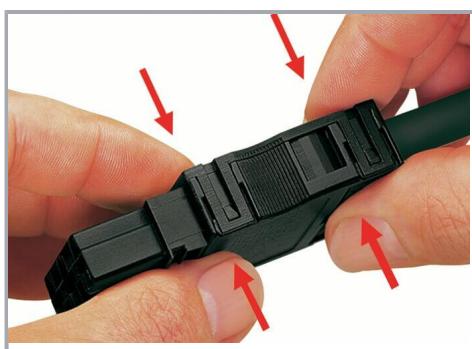
#### Installation



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.

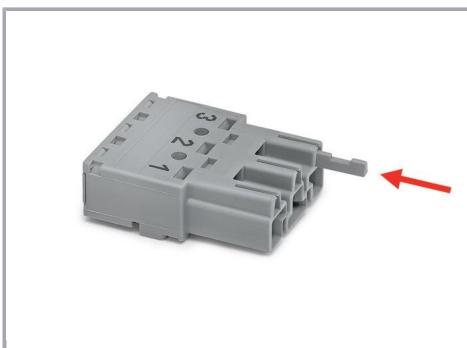


Tighten strain relief screw with screwdriver (2.5 mm blade width).

#### Coding



Simply cut off the coding pin from the socket.



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

#### Mismating protection

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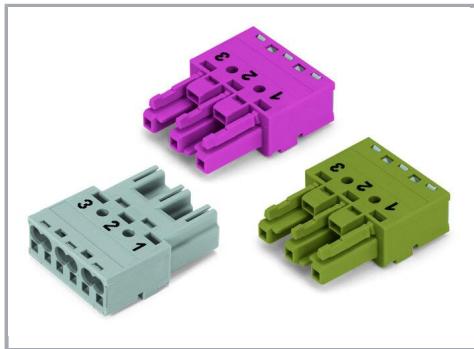
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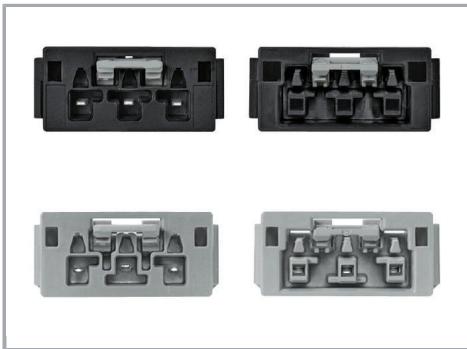


B-coded connectors with different colors can be plugged together.

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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