

## Item description

### Female connector/socket *WINSTA*® MIDI with protection type IP20

The *WINSTA*® MIDI female connector/socket rated current 25 A allows assembly of fine-stranded and solid conductors. Our pluggable installation connectors with spring pressure connection technology function entirely without screw connections. They allow resource-efficient, error-free installation in a large number of possible uses. For greater security in electrical installations, the pluggable installation connector is provided with mechanical 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!)). Thanks to the color coding and mechanical A coding of *WINSTA*® MIDI pluggable installation connectors, you can clearly distinguish different circuits. The rated current and voltage are important criteria for selecting a pluggable installation connector: They tell us about the product's domains of use. This product has a current rating of 25 A – so it is also 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. This saves time, labor, and money.

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



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

WINSTA® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It ensures error-free installation of cables and components, quickly and reliably. Now you can also reduce installation expenses without compromising safety and quality: with protection type IP20 eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- for automation controllers
- for any mains application
- custom-engineered solutions
- quick replacement of defective units during ongoing operation

### Data

#### 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 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 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket
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## Connection data

Connection points	8
Total number of potentials	4

## 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	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

## Mechanical Data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	N $\nabla$ 2/L 1/L'
Potential marking	N $\nabla$ 2/L 1/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

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



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 <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	white
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	0.218 MJ
Weight	12.5 g

## Environmental requirements

Processing temperature	-5 ... +40 °C
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Continuous operating temperature	-35 ... +85 °C
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Note on continuous operating temperature	Insulating parts for temperatures ≤ 105 °C
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## 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)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918252386
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 61535	NL -84761
	CCA DEKRA Certification B.V.	EN 61535	71- 123228
	cURus Underwriters Laboratories Inc.	UL 1977	E45171
	cURus Underwriters Laboratories Inc.	UL 1059	E 45172
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 61984	40002889

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## Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

## Approvals for marine applications

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

## Counterpart

	<b>Item no.770-134</b> Plug; with strain relief housing; 4-pole; Cod. A; 4,00 mm <sup>2</sup> ; white	<a href="http://www.wago.com/770-134">www.wago.com/770-134</a>
	<b>Item no.770-234</b> Plug; 4-pole; Cod. A; 4,00 mm <sup>2</sup> ; white	<a href="http://www.wago.com/770-234">www.wago.com/770-234</a>
	<b>Item no.770-6224</b> Linect® T-connector; 4-pole; Cod. A; 1 input; 2 outputs; white	<a href="http://www.wago.com/770-6224">www.wago.com/770-6224</a>
	<b>Item no.770-676</b> T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white	<a href="http://www.wago.com/770-676">www.wago.com/770-676</a>
	<b>Item no.770-677</b> T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white	<a href="http://www.wago.com/770-677">www.wago.com/770-677</a>

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**Item no.770-734**

Snap-in plug; 4-pole; Cod. A; 4,00 mm²; white

[www.wago.com/770-734](http://www.wago.com/770-734)**Item no.770-734/007-000**

Snap-in plug; with direct ground contact; 4-pole; Cod. A; 4,00 mm²; white

[www.wago.com/770-734/007-000](http://www.wago.com/770-734/007-000)**Item no.770-994**

h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

[www.wago.com/770-994](http://www.wago.com/770-994)**Item no.770-834**

Plug for PCBs; straight; 4-pole; Cod. A; white

[www.wago.com/770-834](http://www.wago.com/770-834)**Item no.770-834/011-000**

Plug for PCBs; angled; 4-pole; Cod. A; white

[www.wago.com/770-834/011-000](http://www.wago.com/770-834/011-000)**Item no.770-995**

h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white

[www.wago.com/770-995](http://www.wago.com/770-995)**Item no.771-9994/006-102**

pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; white

[www.wago.com/771-9994/006-102](http://www.wago.com/771-9994/006-102)**Item no.771-9994/206-102**

pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; white

[www.wago.com/771-9994/206-102](http://www.wago.com/771-9994/206-102)

## Required accessories

### Strain relief

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

[www.wago.com/770-504/023-000](http://www.wago.com/770-504/023-000)**Item no.: 770-514**

Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white

[www.wago.com/770-514](http://www.wago.com/770-514)**Item no.: 770-504**

Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black

[www.wago.com/770-504](http://www.wago.com/770-504)**Item no.: 770-514/023-000**

Strain relief housing; 4-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white

[www.wago.com/770-514/023-000](http://www.wago.com/770-514/023-000)

### Cover

Cover

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**Item no.: 770-201**

Lockout cap; 12-pole, separable; for sockets; Plastic; black

[www.wago.com/770-201](http://www.wago.com/770-201)**Item no.: 770-221**

Lockout cap; 12-pole, separable; for sockets; Plastic; white

[www.wago.com/770-221](http://www.wago.com/770-221)**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)**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.: 897-2005**

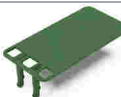
Protective cap; Type4; for sockets and plugs; PVC; red

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

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Item no.: 770-450/000-006  
Marker card; Plastic; blue

www.wago.com/770-450/000-006



Item no.: 770-450/000-012  
Marker card; Plastic; orange

www.wago.com/770-450/000-012

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

Mounting

Mounting accessories



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

www.wago.com/770-319



Item no.: 770-339  
Snap-in frame; 4-pole; 1.0 ... 3.0 mm; white

www.wago.com/770-339

Downloads  
Documentation

Bid Text

770-224 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
770-224 docx - Datei	2018 Apr 10	docx 14.7 kB	Download
770-224 doc - Datei	2018 Apr 10	doc 24.1 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 770-224	URL	Download
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CAE data

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EPLAN Data Portal 770-224	<a href="#">URL</a>	<a href="#">Download</a>
WSCAD Universe 770-224	<a href="#">URL</a>	<a href="#">Download</a>
ZUKEN Portal 770-224	<a href="#">URL</a>	<a href="#">Download</a>
<b>Asset Administration Shell</b>		
Asset Administration Shell 770-224	<a href="#">URL</a>	<a href="#">Download</a>

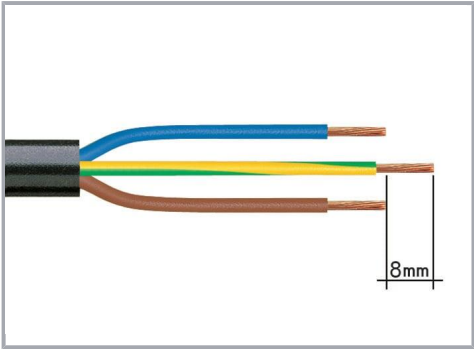
Environmental Product Compliance

Compliance Search

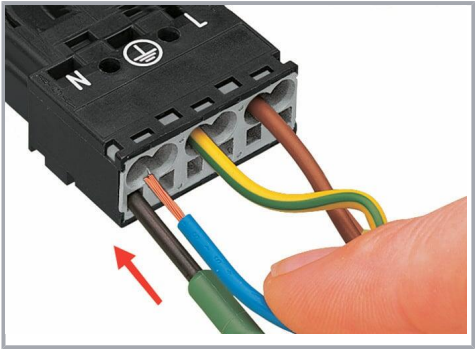
Environmental Product Compliance 770-224	<a href="#">URL</a>	<a href="#">Download</a>
Socket; 4-pole; Cod. A; 4,00 mm²; white		

Installation Notes

Conductor termination

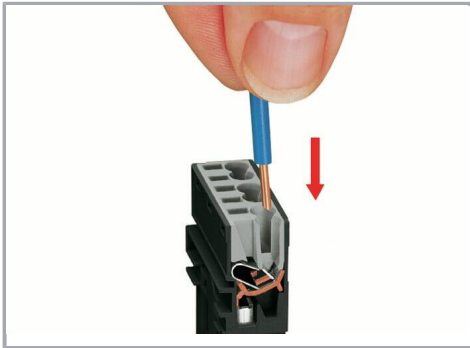


- 1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm

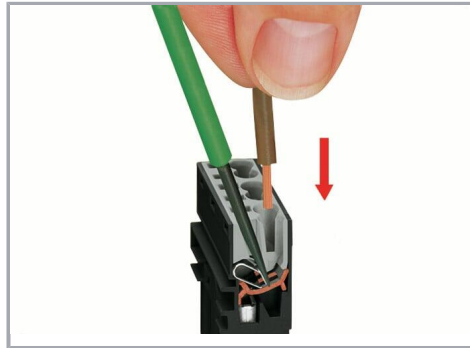


To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

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

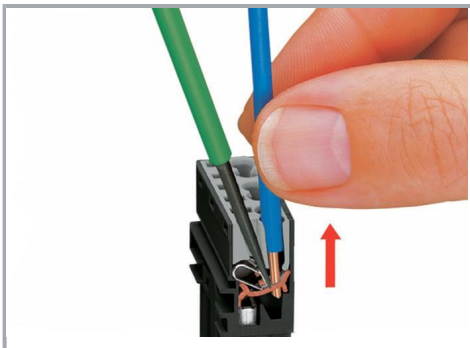


Insert the stripped solid conductor until it hits the backstop.



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.

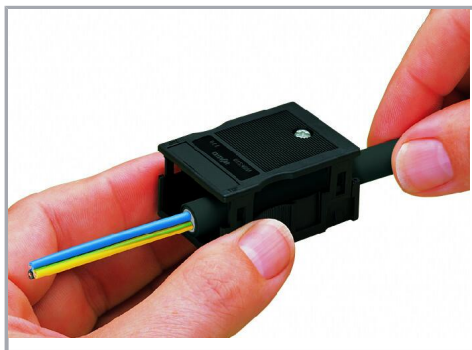
#### Conductor removal



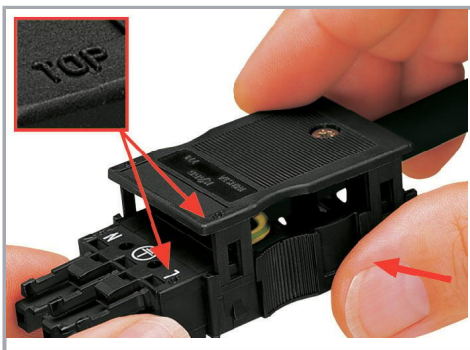
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

#### Installation

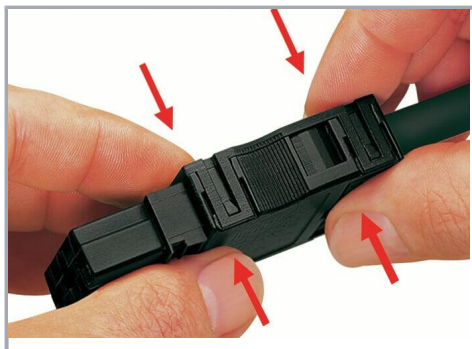
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We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



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).

## Product family

WINSTA® MIDI

[Show all products from the family](#)

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