

## Item description

### Male connector/plug *WINSTA*® MIDI with protection against mismating

For signal and power transmission: The *WINSTA*® MIDI male connector/plug with protection against mismating. The pluggable installation connectors with spring pressure connection technology work completely without screw connections. They allow fast, efficient, error-free installation in numerous possible uses. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismating. The pluggable installation connector is protected 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!)). This means that users' fingers will never come into contact with electrified elements. General mains applications for almost any domain of use can be realised with *WINSTA*® MIDI pluggable installation connectors with A coding. This pluggable installation connector can be employed for a current load of up to 25 A. Thus, it can also be used for high power loads. Our *WINSTA*® MIDI product line allows maximum flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it ensures error-free, time-saving installation and offers flexibility for meeting various installation requirements.

### *WINSTA*® MIDI solutions for your electrical installation – protected against mismating and maintenance-free

The *WINSTA*® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Choose quality and durability – with protection against mismating from WAGO makes the electrical installation of electrical components noticeably easier.

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



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- protection against mismating eliminates errors
- for automation controllers
- with A coding for use in many general mains applications
- 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)	250 V
Rated impulse voltage (III/3)	4 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	4
Total number of potentials	2

#### Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool

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



	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	General mains applications
Coding	A
Variable coding	Yes
Marking	N L
Potential marking	N 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
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

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



## Note on mismatching protection

All **WINSTA**<sup>®</sup> components are 100% protected against mismatching 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	0.139 MJ
Weight	6.5 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

Product Group	20 (Winsta)
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 8.0	EC002560

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

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ETIM 7.0	EC002560
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821028314
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

### 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-

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**DNV GL**

Det Norske Veritas, Germanischer Lloyd

-

TAE00001Z6

**LR**

Lloyds Register

IEC 61984

LR22429487TA

## Counterpart

**Item no.770-122/041-000**Socket; with strain relief housing; 2-pole; Cod. A; 4,00 mm<sup>2</sup>; white[www.wago.com/770-122/041-000](http://www.wago.com/770-122/041-000)**Item no.770-1656**

T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

[www.wago.com/770-1656](http://www.wago.com/770-1656)**Item no.770-1665**

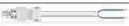
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; white

[www.wago.com/770-1665](http://www.wago.com/770-1665)**Item no.770-1684**

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

[www.wago.com/770-1684](http://www.wago.com/770-1684)**Item no.770-1686**

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

[www.wago.com/770-1686](http://www.wago.com/770-1686)**Item no.770-222**Socket; 2-pole; Cod. A; 4,00 mm<sup>2</sup>; white[www.wago.com/770-222](http://www.wago.com/770-222)**Item no.771-8992/106-102**pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; white[www.wago.com/771-8992/106-102](http://www.wago.com/771-8992/106-102)**Item no.771-8992/006-102**pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; white[www.wago.com/771-8992/006-102](http://www.wago.com/771-8992/006-102)

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## 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)



**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

### 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)

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	<b>Item no.: 897-2100</b> Mounting plate; for Snap-in; Plastic; for detectors and sensors ; Ø 200 mm; red	<a href="http://www.wago.com/897-2100">www.wago.com/897-2100</a>
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<b>Tool</b>		
Operating tool		

	<b>Item no.: 210-719</b> Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-719">www.wago.com/210-719</a>
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	<b>Item no.: 770-382</b> Operating tool; 2-way; green	<a href="http://www.wago.com/770-382">www.wago.com/770-382</a>
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<b>Cover</b>		
Cover		

	<b>Item no.: 770-360</b> Lockout cap; for plugs; 5-pole; separable; yellow	<a href="http://www.wago.com/770-360">www.wago.com/770-360</a>
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	<b>Item no.: 897-2003</b> Protective cap; Type2; for sockets and plugs; PVC; red	<a href="http://www.wago.com/897-2003">www.wago.com/897-2003</a>
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Downloads  
Documentation

<b>Bid Text</b>			
770-232 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
770-232 doc - Datei	2015 Jun 8	doc 24.1 kB	Download

CAD/CAE-Data

<b>CAD data</b>			
2D/3D Models 770-232		URL	Download
<b>CAE data</b>			
WSCAD Universe 770-232		URL	Download

71 IKFN Portal 770-232  
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EPLAN Data Portal 770-232	<a href="#">URL</a>	<a href="#">Download</a>
EPLAN Data Portal 770-232	<a href="#">URL</a>	<a href="#">Download</a>
Asset Administration Shell		
Asset Administration Shell 770-232	<a href="#">URL</a>	<a href="#">Download</a>

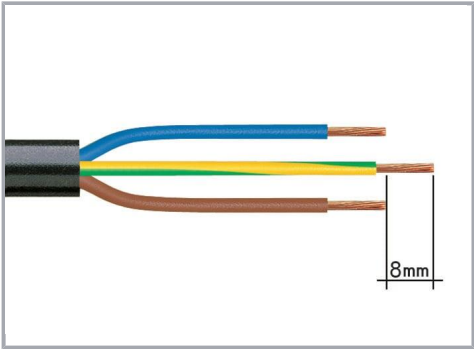
Environmental Product Compliance

Compliance Search

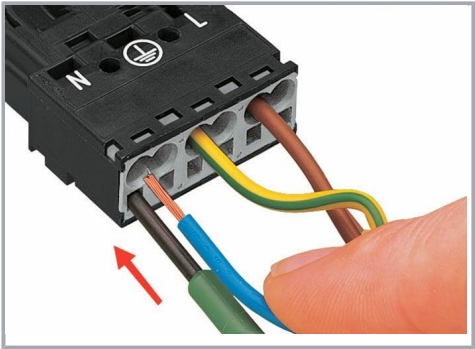
Environmental Product Compliance 770-232 Plug; 2-pole; Cod. A; 4,00 mm²; white	<a href="#">URL</a>	<a href="#">Download</a>
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Installation Notes

Conductor termination

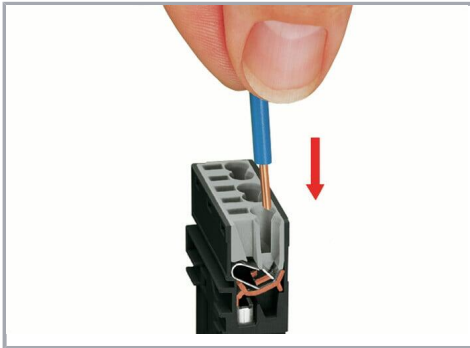


- 1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm

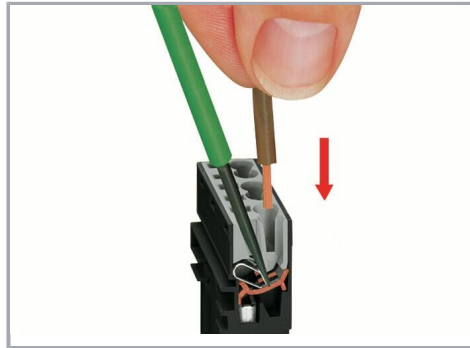


To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

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

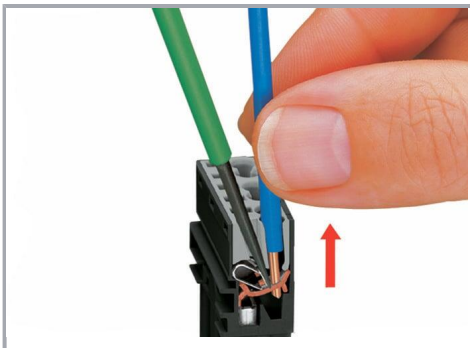


Insert the stripped solid conductor until it hits the backstop.



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.

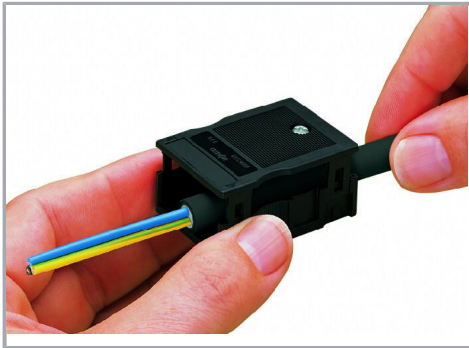
#### Conductor removal



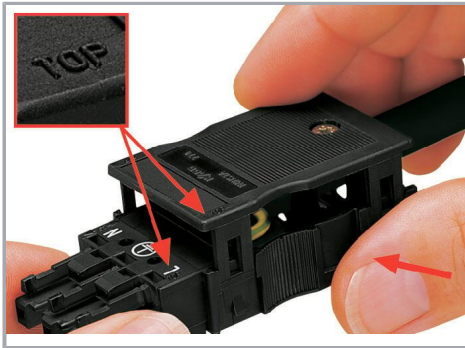
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

#### Installation

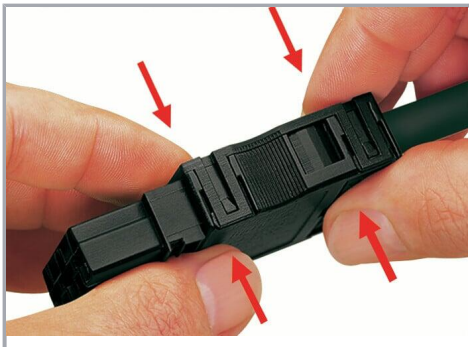
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We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



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](#)

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