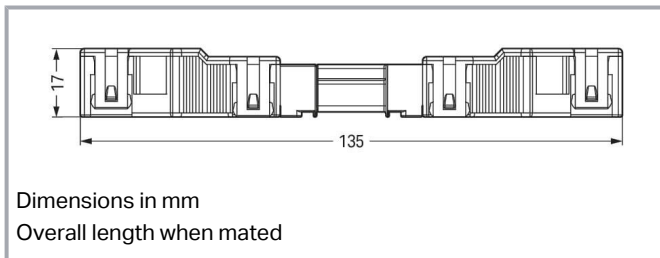
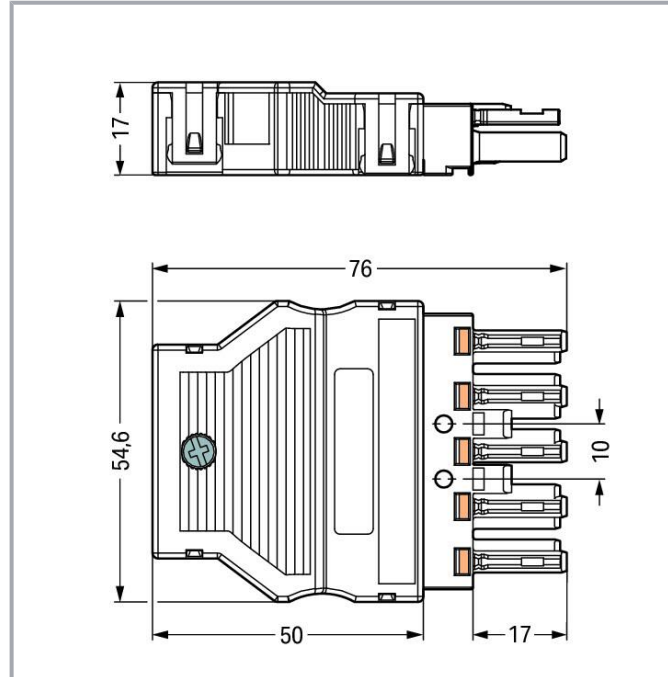


## Data sheet | Item number: 770-105

Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

[www.wago.com/770-105](http://www.wago.com/770-105)



### Item description

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

For power and signal transmission: The *WINSTA*® MIDI female connector/socket 5-pole. WAGO pluggable installation connectors are useful when criteria repeat or are distributed on a specified grid, for example for installing grid lighting or flush-mount lighting. For greater protection in electrical installations, the pluggable installation connector is provided 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!)). Standard mains applications for almost any domain of use can be implemented with *WINSTA*® MIDI pluggable installation connectors with A coding. Important parameters in the selection of a

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

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pluggable installation connector are the rated current and voltage: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is suitable for robust 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. That saves time and reduces installation labor and expense. The strip length is 55 mm.

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

*WINSTA*® is the pluggable connection system that is optimally tailored to the strict requirements of electrical installation. It ensures fast, secure and, above all, error-free installation of components and cables. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismatching from WAGO.

- effective protection against mismatching
- 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)	400 V
Rated impulse voltage (III/3)	6 kV
Rated current	25 A
Legend (ratings)	(III / 3) $\hat{=}$ 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

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



## 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	10
Total number of potentials	5

## 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	5
Conductor entry direction to mating direction	0°
Strip length (outer insulation)	55 mm

## Physical data

Pin spacing	10 mm / 0.394 inches
Width	54.6 mm / 2.15 inches
Height	17 mm / 0.669 inches
Depth	76 mm / 2.992 inches

## Mechanical Data

Application	General mains applications
Coding	A
Variable coding	Yes

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Marking	N $\downarrow$ L1 L2 L3
Potential marking	N $\downarrow$ L1 L2 L3
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 <sup>®</sup> 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).
Strain relief	strain relief housing

### Material data

Note (material data)	Information on material specifications can be found here
Color	black
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

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

Contact plating	Tin
Fire load	0.684 MJ
Weight	29 g

### 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


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
ECCN	NO DATA
PU (SPU)	25 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918252157
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.	EN 61535	71-123228
	CCA DEKRA Certification B.V.	IEC 61535	NL -84761
	cURus Underwriters Laboratories Inc.	UL 1977	E45171

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



<b>cURus</b> Underwriters Laboratories Inc.	UL 1059	E 45172
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<b>VDE</b> VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808
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<b>VDE</b> 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
	<b>EU-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

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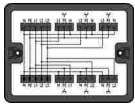
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## Counterpart

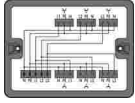
	<b>Item no.770-115</b> Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-115">www.wago.com/770-115</a>
	<b>Item no.770-215</b> Plug; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-215">www.wago.com/770-215</a>
	<b>Item no.770-315</b> Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-315">www.wago.com/770-315</a>
	<b>Item no.770-415</b> Plug; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-415">www.wago.com/770-415</a>
	<b>Item no.770-609</b> 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black	<a href="http://www.wago.com/770-609">www.wago.com/770-609</a>
	<b>Item no.770-621</b> T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	<a href="http://www.wago.com/770-621">www.wago.com/770-621</a>
	<b>Item no.770-622</b> T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	<a href="http://www.wago.com/770-622">www.wago.com/770-622</a>
	<b>Item no.770-640</b> Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; black	<a href="http://www.wago.com/770-640">www.wago.com/770-640</a>
	<b>Item no.770-659</b> 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white	<a href="http://www.wago.com/770-659">www.wago.com/770-659</a>
	<b>Item no.770-715</b> Snap-in plug; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-715">www.wago.com/770-715</a>
	<b>Item no.770-715/007-000</b> Snap-in plug; with direct ground contact; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-715/007-000">www.wago.com/770-715/007-000</a>
	<b>Item no.770-815</b> Plug for PCBs; straight; 5-pole; Cod. A; black	<a href="http://www.wago.com/770-815">www.wago.com/770-815</a>
	<b>Item no.770-815/011-000</b> Plug for PCBs; angled; 5-pole; Cod. A; black	<a href="http://www.wago.com/770-815/011-000">www.wago.com/770-815/011-000</a>
	<b>Item no.771-9995/006-101</b> pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm <sup>2</sup> ; 1 m; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/771-9995/006-101">www.wago.com/771-9995/006-101</a>
	<b>Item no.771-9995/206-101</b> pre-assembled connecting cable; Eca; Plug/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm <sup>2</sup> ; 1 m; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/771-9995/206-101">www.wago.com/771-9995/206-101</a>

**Item no.899-631/100-000**

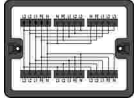
Subject to changes. Please also observe the further product documentation!



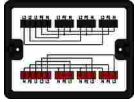
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; black [www.wago.com/899-631/100-000](http://www.wago.com/899-631/100-000)



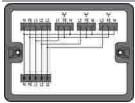
**Item no.899-631/105-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 6 outputs; Cod. A; MIDI; black [www.wago.com/899-631/105-000](http://www.wago.com/899-631/105-000)



**Item no.899-631/187-000**  
Distribution box; Three-phase current (400 V); 1 input; 5 outputs; Cod. A; MIDI; black [www.wago.com/899-631/187-000](http://www.wago.com/899-631/187-000)



**Item no.899-631/302-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 2 inputs; 6 outputs; Cod. A, P; MIDI; black [www.wago.com/899-631/302-000](http://www.wago.com/899-631/302-000)



**Item no.899-631/346-000**  
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 4 outputs; Cod. A; MIDI; black [www.wago.com/899-631/346-000](http://www.wago.com/899-631/346-000)

## Required accessories

### Cover

#### Cover



**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)

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



## Optional accessories

### Tool

#### Wiring aid



**Item no.: 770-100**

Wiring aid; 2- to 5-pole; Plastic; orange

[www.wago.com/770-100](http://www.wago.com/770-100)

#### 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



**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)



**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)

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## Downloads

### Documentation

#### Bid Text

770-105 X81 - Datei	2019 Feb 19	xml 3.1 kB	Download
770-105 doc - Datei	2015 Jun 8	doc 24.1 kB	Download
ausschreiben.de 770-105		URL	Download

## CAD/CAE-Data

### CAD data

2D/3D Models 770-105		URL	Download
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### CAE data

EPLAN Data Portal 770-105		URL	Download
WSCAD Universe 770-105		URL	Download
ZUKEN Portal 770-105		URL	Download

### Asset Administration Shell

Asset Administration Shell 770-105		URL	Download
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 770-105 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black		URL	Download
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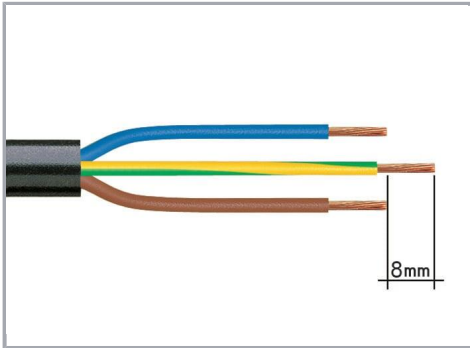
## Installation Notes

### Conductor termination

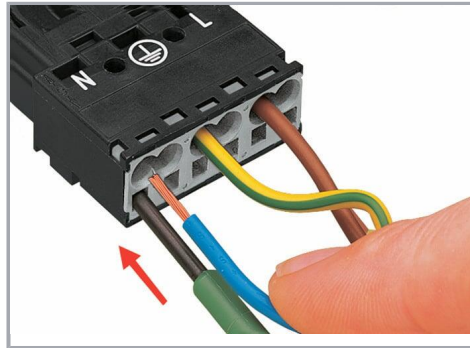
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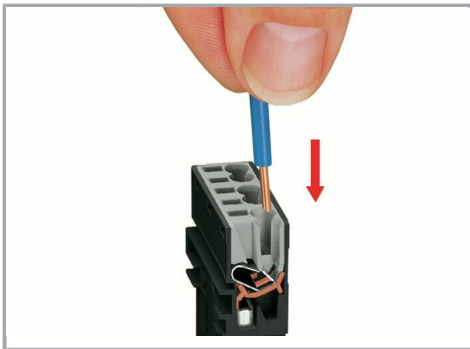
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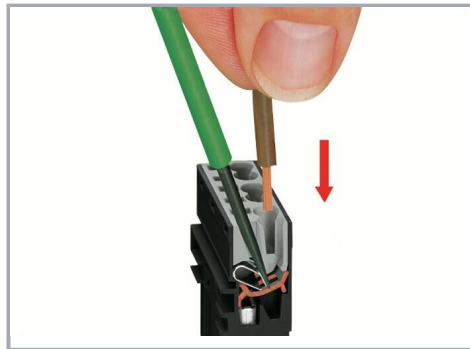
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

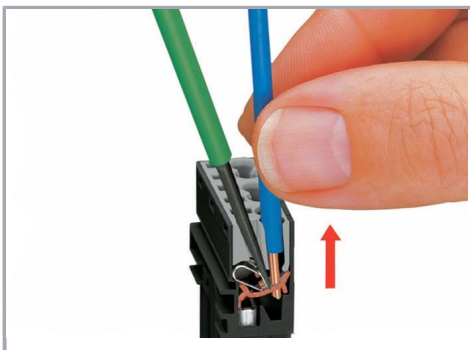


Insert the stripped solid conductor until it hits the backstop.



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.

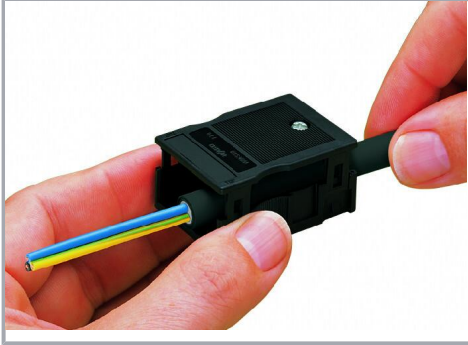
#### Conductor removal



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!

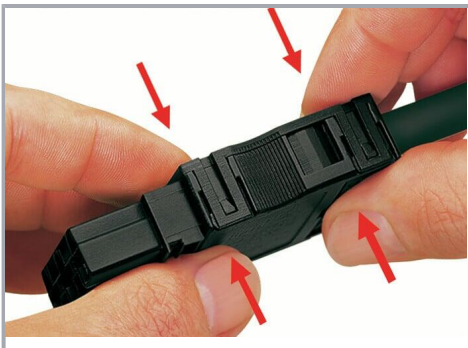
## Installation



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).

## Product family

**WINSTA® MIDI**

[Show all products from the family](#)

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