

**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)



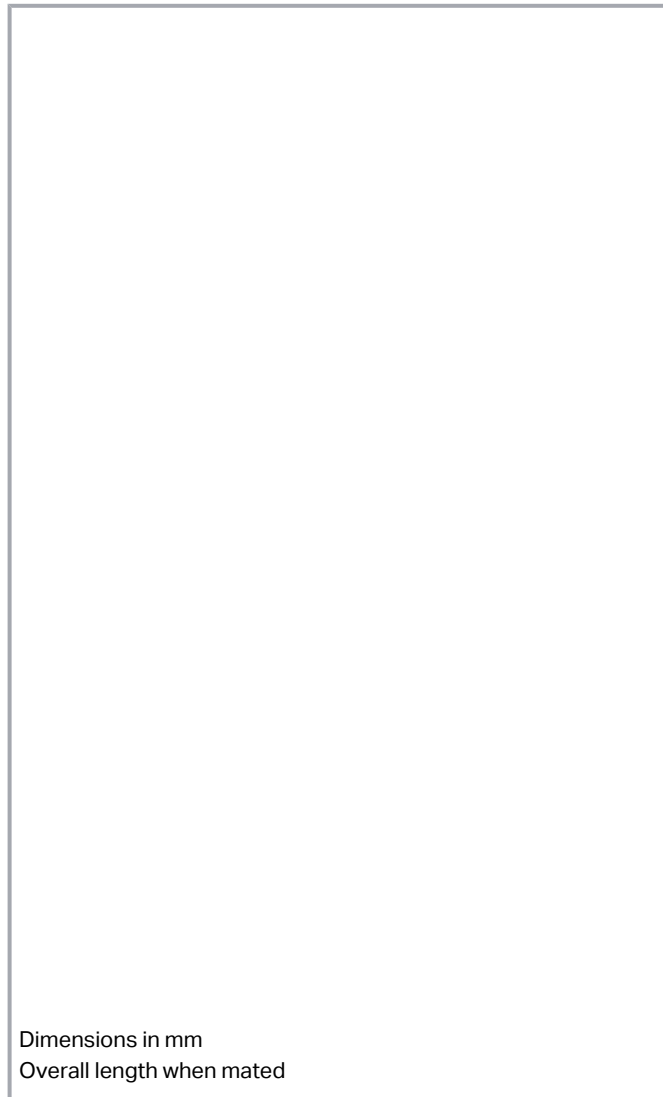
**Color:**

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## Item description

### Female connector/socket *WINSTA*® MIDI A coding

For signal and power transmission: The *WINSTA*® MIDI female connector/socket with protection against mismatching. 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 security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismatching. 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!)). That results in the fact that users' fingers will never come into contact with energised elements. Standard mains applications for almost any domain of use can be implemented with *WINSTA*® MIDI pluggable installation connectors with A coding. This pluggable installation connector can be used for a voltage load of up to 25 A. Therefore, it can also be

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used for high power loads. Our *WINSTA*® MIDI product line achieves total flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees error-free, time-saving installation and offers flexibility for meeting all installation requirements. A range up to 55 mm can be used for the strip length.

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

The *WINSTA*® Pluggable Connection System allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Now you can also cut installation costs without compromising quality and safety: The *WINSTA*® MIDI pluggable installation connector with protection type IP20 eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- simple circuits
- with A coding for use in a large number of 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) ≙ 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

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## 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 <i>WINSTA</i> <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

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Contact plating	Tin
Fire load	0.676 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
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
	<b>CCA</b> DEKRA Certification B.V.	EN 61535	71-123228
	<b>CCA</b> DEKRA Certification B.V.	IEC 61535	NL -84761
	<b>cURus</b> Underwriters Laboratories Inc.	UL 1977	E45171
	<b>cURus</b> Underwriters Laboratories Inc.	UL 1059	E 45172
	<b>VDE</b> VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808

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VDE  
VDE Prüf- und Zertifizierungsinstitut

EN 61984

40002889

**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

**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>

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<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>
<b>Item no.899-631/100-000</b> Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; black	<a href="http://www.wago.com/899-631/100-000">www.wago.com/899-631/100-000</a>
<b>Item no.899-631/105-000</b> Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 6 outputs; Cod. A; MIDI; black	<a href="http://www.wago.com/899-631/105-000">www.wago.com/899-631/105-000</a>
<b>Item no.899-631/187-000</b> Distribution box; Three-phase current (400 V); 1 input; 5 outputs; Cod. A; MIDI; black	<a href="http://www.wago.com/899-631/187-000">www.wago.com/899-631/187-000</a>
<b>Item no.899-631/302-000</b> Distribution box; Three-phase to single-phase current (400 V/230 V); 2 inputs; 6 outputs; Cod. A, P; MIDI; black	<a href="http://www.wago.com/899-631/302-000">www.wago.com/899-631/302-000</a>
<b>Item no.899-631/346-000</b> Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 4 outputs; Cod. A; MIDI; black	<a href="http://www.wago.com/899-631/346-000">www.wago.com/899-631/346-000</a>

## Required accessories

### Locking levers

Locking system	
<b>Item no.: 770-121</b> Locking lever; for flying leads; for manual operation; white	<a href="http://www.wago.com/770-121">www.wago.com/770-121</a>
<b>Item no.: 770-131</b> Locking lever; for flying leads; for tool operation; white	<a href="http://www.wago.com/770-131">www.wago.com/770-131</a>
<b>Item no.: 770-101</b> Locking lever; for flying leads; for manual operation; black	<a href="http://www.wago.com/770-101">www.wago.com/770-101</a>
<b>Item no.: 770-111</b> Locking lever; for flying leads; for tool operation; black	<a href="http://www.wago.com/770-111">www.wago.com/770-111</a>

### Cover

Cover	
<b>Item no.: 770-201</b> Lockout cap; 12-pole, separable; for sockets; Plastic; black	<a href="http://www.wago.com/770-201">www.wago.com/770-201</a>
<b>Item no.: 770-221</b> Lockout cap; 12-pole, separable; for sockets; Plastic; white	<a href="http://www.wago.com/770-221">www.wago.com/770-221</a>

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## 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)

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)

### 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)

## Downloads

### Documentation

#### Bid Text

770-105	2019 年2月19 日	xml	Download
X81 - Datei		3.1 kB	

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## 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
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WSCAD Universe 770-105		URL	Download
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ZUKEN Portal 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

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



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

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



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

### 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

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



**WINSTA® MIDI**

[Show all products from the family](#)

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