

## 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 with protection type IP20. The pluggable installation connectors with spring pressure connection technology work without screw connections. They allow fast, efficient, error-free installation in a large number of applications. The coding options reduce installation errors, allowing fast, maintenance-free wiring of all components. 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!)). Thanks to the color coding and mechanical A coding of WINSTA® MIDI pluggable installation connectors, you can clearly distinguish different

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

circuits. This pluggable installation connector can be employed for a load of up to 25 A. Thus, it can also be used for high power loads. **WINSTA®** MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in a broad range of individual products you can use for quick, easy, flexible, and secure electrical installation. The strip length is 55 mm.

### Lower costs through fast commissioning and elimination of service expenses – solutions from **WINSTA®** MIDI

**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 lower installation costs without compromising quality and safety: with protection type IP20 reduces the need for servicing and prevents unnecessary downtime.



- pluggable installation connectors with protection against mismatching
- for automation controllers
- with A coding for a large number of applications
- ready for immediate use
- rapid, structured electrical installation

## 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) $\triangleq$ 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

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

approx. 0.25 mΩ contact transition plug/socket

## Connection data

Connection points	5
Total number of potentials	5
PE function	Preceding PE contact

## 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	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
Marking	L3 L2 L1 $\pm$ N
Potential marking	L3 L2 L1 $\pm$ N

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

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
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).
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	VO
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper or copper alloy; surface-treated
Contact plating	Tin
Fire load	0.752 MJ

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

Weight

29.8 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
ETIM 7.0	EC002560
PU (SPU)	25 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918254663
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

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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
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

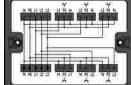
## Approvals for marine applications

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

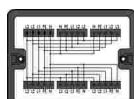
## Counterpart

	<b>Item no.770-105</b> Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-105">www.wago.com/770-105</a>
	<b>Item no.770-205</b> Socket; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-205">www.wago.com/770-205</a>
	<b>Item no.770-305</b> Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-305">www.wago.com/770-305</a>

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	<b>Item no.770-405</b> Socket; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-405">www.wago.com/770-405</a>
	<b>Item no.770-611</b> Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 2 outputs; with cable connection on the input side; black	<a href="http://www.wago.com/770-611">www.wago.com/770-611</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.770-805</b> Socket for PCBs; straight; 5-pole; Cod. A; black	<a href="http://www.wago.com/770-805">www.wago.com/770-805</a>
	<b>Item no.770-705</b> Snap-in socket; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-705">www.wago.com/770-705</a>
	<b>Item no.770-705/009-000</b> Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/770-705/009-000">www.wago.com/770-705/009-000</a>
	<b>Item no.770-805/011-000</b> Socket for PCBs; angled; 5-pole; Cod. A; black	<a href="http://www.wago.com/770-805/011-000">www.wago.com/770-805/011-000</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.771-9995/106-101</b> pre-assembled connecting cable; Eca; Socket/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/771-9995/106-101">www.wago.com/771-9995/106-101</a>
	<b>Item no.772-262</b> Tap-off module; for flat cable; 5 x 2.5 mm <sup>2</sup> + 2 x 1.5 mm <sup>2</sup> ; 5-pole; Cod. A; with cable connection on the output side; black	<a href="http://www.wago.com/772-262">www.wago.com/772-262</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>

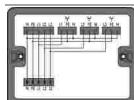
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**Item no.899-631/187-000**

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.899-631/346-000**

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

### 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

### 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)

### 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)

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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)



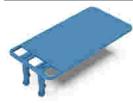
Item no.: 770-450/000-005  
Marker card; Plastic; red

[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)

## 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.: 897-2005  
Protective cap; Type4; for sockets and plugs; PVC; red

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

## Coding

Coding



Item no.: 770-401  
Coding pin; for plugs; Plastic; gray

[www.wago.com/770-401](http://www.wago.com/770-401)

## Downloads

### Documentation

#### Bid Text

770-315  
X81 - Datei

2019 Feb 19

xml  
3.1 kB

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## CAD/CAE-Data

### CAD data

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2D/3D Models 770-315

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#### Asset Administration Shell

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#### Environmental Product Compliance

##### Compliance Search

Environmental Product Compliance 770-315

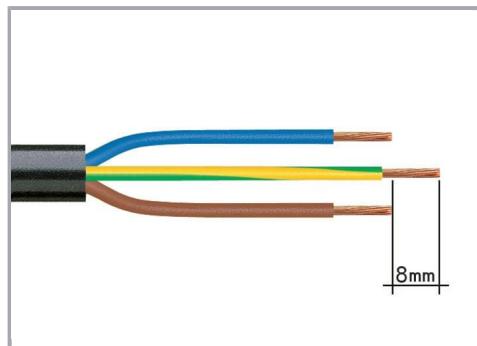
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Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; black

#### Installation Notes

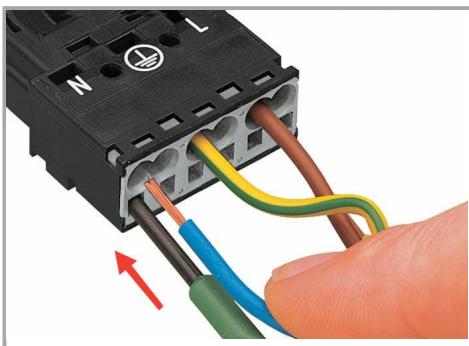
##### Conductor termination



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.

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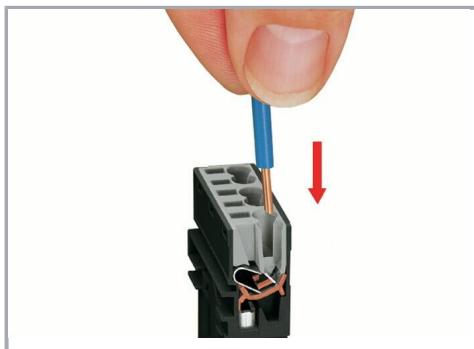
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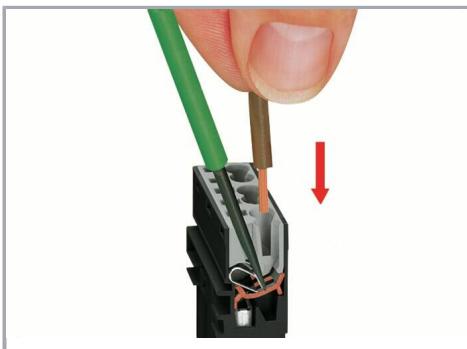
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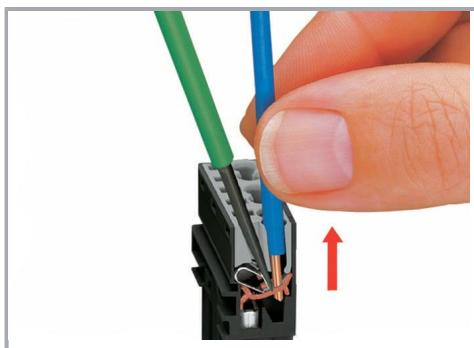


Insert the stripped solid conductor until it hits the backstop.



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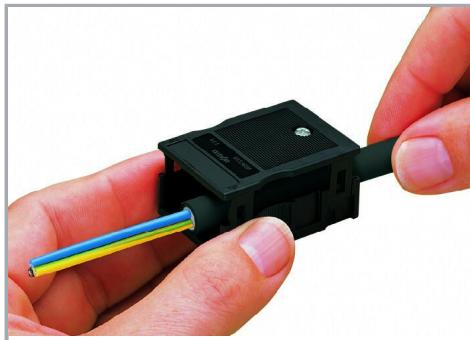
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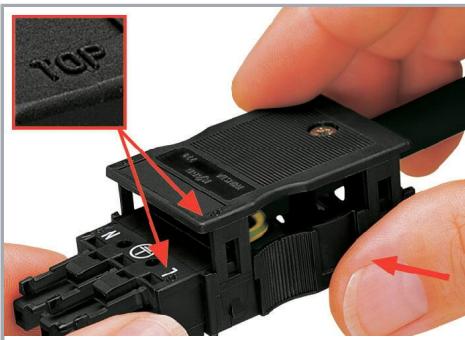
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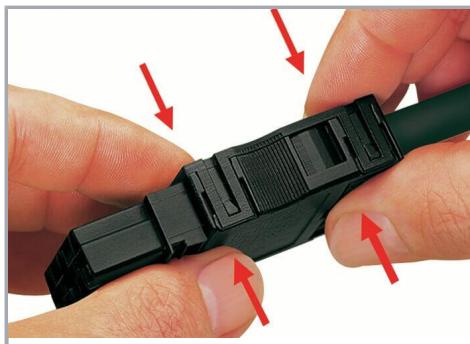
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We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



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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