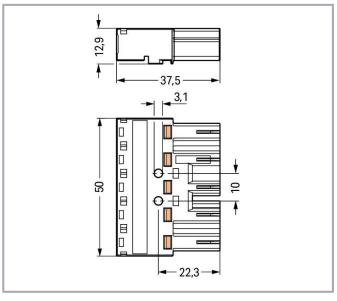
Plug; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; white

www.wago.com/770-235







#### Item description

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

The WINSTA® MIDI male connector/plug with protection against mismating supports rapid, correct installation. The pluggable installation connectors with spring pressure connection technology work without screw connections. They allow flexible, error-free installation in a large number of applications. The coding options reduce installation errors, allowing fast, secure wiring of all components. 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 energised elements. The WINSTA® MIDI pluggable installation connector with A coding in white or black is usually used for general mains applications in power distribution. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is especially suitable 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.

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

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# 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 significantly reduces the need for servicing and lowers costs. Choose quality and durability – the WINSTA® MIDI pluggable installation connector with protection against mismating from WAGO makes the installation of electrical components noticeably easier.

- protection against mismating eliminates errors
- simple circuits
- with A coding for use in many general mains applications
- ready to install and use immediately
- 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

Note on contact resistance	approx. 1 m $\Omega$ of contact resistance
	approx. 0.25 m $\Omega$ contact transition plug/socket

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#### Connection data

Connection points	10
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°

## Physical data

Pin spacing	10 mm / 0.394 inches
Width	50 mm / 1.969 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	L3 L2 L1
Potential marking	L3 L2 L1
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)

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n mated and secured with a strain relief housing: IP2xC npact connectors are not designed for use in open, easily 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).

#### **Material Data**

Note (material data)

Information on material specifications can be found here

Color	bita
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	0.357 MJ
Weight	16.3 g

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## **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)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918254601
Customs tariff number	85366990990

## **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

## Approvals / Certificates

## General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 61535	NL -84761
KEMA	CCA DEKRA Certification B.V.	EN 61535	71- 123228
	<b>cURus</b> Underwriters Laboratories Inc.	UL 1977	E45171



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EN 61984 40002889



VDE Prüf- und Zertifizierungsinstitut

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

## Approvals for marine applications

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

## Counterpart

	Item no.770-125 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; white	www.wago.com/770- 125
	Item no.770-325 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; white	www.wago.com/770- 325
Carlo Carlo	Item no.770-425 Socket; 5-pole; Cod. A; 4,00 mm²; white	www.wago.com/770- 425
The state of the s	Item no.770-225 Socket; 5-pole; Cod. A; 4,00 mm²; white	www.wago.com/770- 225

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www.wago.com/770-235





Item no.770-6225

Linect® T-connector; 5-pole; Cod. A; 1 input; 2 outputs; white

www.wago.com/770-6225



Item no.770-671

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

www.wago.com/770-

671



Item no.770-661

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; white

www.wago.com/770-

661



Item no.770-672

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white

www.wago.com/770-

672



Item no.770-690

Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; white

www.wago.com/770-

690



Item no.770-725

Snap-in socket; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; white

www.wago.com/770-

725



Item no.770-725/009-000

Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; white

www.wago.com/770-

725/009-000



Item no.770-825

Socket for PCBs; straight; 5-pole; Cod. A; white

www.wago.com/770-

825



Item no.770-825/011-000

Socket for PCBs; angled; 5-pole; Cod. A; white

www.wago.com/770-825/011-000



Item no.771-9995/006-102

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; white

www.wago.com/771-9995/006-102



Item no.771-9995/106-102

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>; white

www.wago.com/771-9995/106-102



Item no.899-681/100-000

Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; white

www.wago.com/899-

681/100-000

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## Required accessories

Str		

Strain relief housing



Item no.: 770-505/021-000

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; black

www.wago.com/770-505

/021-000



Item no.: 770-505/023-000

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black

www.wago.com/770-505

/023-000



Item no.: 770-505

Strain relief housing; 5-pole; for 2 cables; 9.0  $\dots$  13.0 mm; 55 mm; black

www.wago.com/770-505



Item no.: 770-515

Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white

www.wago.com/770-515



Item no.: 770-515/023-000

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white

www.wago.com/770-515

/023-000



Item no.: 770-515/021-000

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; white

www.wago.com/770-515

/021-000

## **Locking levers**

Locking system



Item no.: 770-121

Locking lever; for flying leads; for manual operation; white

www.wago.com/770-121



Item no.: 770-131

Locking lever; for flying leads; for tool operation; white

www.wago.com/770-131



Item no.: 770-101

Locking lever; for flying leads; for manual operation; black

www.wago.com/770-101



Item no.: 770-111

Locking lever; for flying leads; for tool operation; black

www.wago.com/770-111

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## Optional accessories

C	۸۱	ıρ	r

Cover



Item no.: 770-360

Lockout cap; for plugs; 5-pole; separable; yellow

www.wago.com/770-360



Item no.: 897-2005

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

www.wago.com/897-2005

Coding

Coding



Item no.: 770-401

Coding pin; for plugs; Plastic; gray

www.wago.com/770-401

Mounting

Snap-in frame



Item no.: 770-320

Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black

www.wago.com/770-320



Item no.: 770-321

Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black

www.wago.com/770-321



Item no.: 770-340

Snap-in frame; 5-pole; 1.0 ... 3.0 mm; white

www.wago.com/770-340



Item no.: 770-341

Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white

www.wago.com/770-341

Tool

Wiring aid



Item no.: 770-100

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

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

Marking accessories

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Marker



Item no.: 770-450/000-002 Marker card; Plastic; yellow www.wago.com/770-450 /000-002



Item no.: 770-450/000-001 Marker card; Plastic; green www.wago.com/770-450 /000-001



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

/000-005



Item no.: 770-450 Marker card; Plastic; white

www.wago.com/770-450



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

## Downloads Documentation

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#### CAD/CAE-Data

CAD data

2D/3D Models 770-235

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#### **CAE** data

ZUKEN Portal 770-235	URL	Download
EPLAN Data Portal 770-235	URL	Download
WSCAD Universe 770-235	URL	Download

## **Environmental Product Compliance**

#### Compliance Search

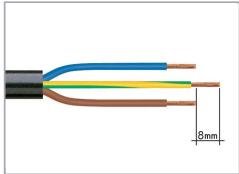
Environmental Product Compliance 770-235

Plug; 5-pole; Cod. A; 4,00 mm²; white

URL Download

#### **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.

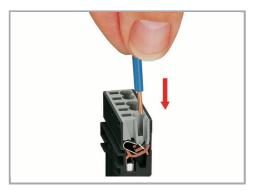
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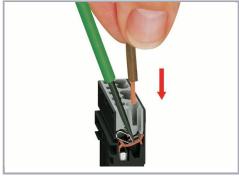
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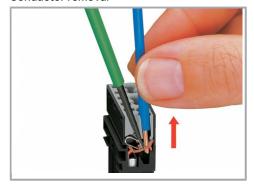


Insert the stripped solid conductor until it hits the backstop.



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.

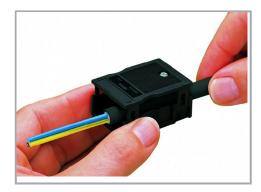
#### Installation

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

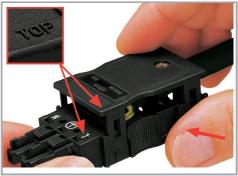
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We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



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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