Item description

Male connector/plug *WINSTA*® MIDI with protection type IP20

For power and signal transmission: The *WINSTA*® MIDI male connector/plug A coding. WAGO pluggable installation connectors can be used when criteria repeat or are distributed on a defined pattern, for example for installing grid lighting or flush-mount lighting. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. The pluggable installation connector is protected against ingress by solid objects 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 circuits. The rated current and voltage are important criteria for selecting a pluggable installation connector: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is suitable for high power loads. Our *WINSTA*® MIDI product line achieves flexibility for the installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it ensures time-saving, error-free installation and offers flexibility for meeting all installation requirements.

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

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It ensures error-free

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

installation of cables and components, quickly and reliably. Now you can also reduce installation expenses without compromising quality and safety: with protection against mismating reduces the need for servicing and prevents unnecessary downtime.

-
- effective protection against mismating
- simple circuits
- with A coding for a great number of applications
- exact dimensions
- convenient installation and commissioning

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 information

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket

Connection data

Connection points	10
Total number of potentials	5
PE function	Preceding PE contact

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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 ⏚ N
Potential marking	L3 L2 L1 ⏚ N
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!)

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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	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
Contact plating	Tin
Fire load	0.412 MJ
Weight	16.3 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

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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	4044918254557
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.	EN 61535	71-123228
	CCA DEKRA Certification B.V.	IEC 61535	NL -84761
	cURus Underwriters Laboratories Inc.	UL 1977	E45171
	cURus Underwriters Laboratories Inc.	UL 1059	E 45172
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 61984	40002889

Declarations of conformity and manufacturer's declarations

Certificate

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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 GL** Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR	**LR** Lloyds Register	IEC 61984	LR22429487TA

Counterpart

	Item no.770-105 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-105
	Item no.770-305 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-305
	Item no.770-205 Socket; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-205
	Item no.770-405 Socket; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-405
	Item no.770-609 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black	www.wago.com/770-609
	Item no.770-611 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	www.wago.com/770-611
	Item no.770-621 T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/770-621

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	Item no.770-622 T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	www.wago.com/770-622
	Item no.770-640 Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; black	www.wago.com/770-640
	Item no.770-659 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white	www.wago.com/770-659
	Item no.770-705 Snap-in socket; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-705
	Item no.770-705/009-000 Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-705/009-000
	Item no.770-805 Socket for PCBs; straight; 5-pole; Cod. A; black	www.wago.com/770-805
	Item no.770-805/011-000 Socket for PCBs; angled; 5-pole; Cod. A; black	www.wago.com/770-805/011-000
	Item no.771-9995/006-101 pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black	www.wago.com/771-9995/006-101
	Item no.772-262 Tap-off module; for flat cable; 5 x 2.5 mm² + 2 x 1.5 mm²; 5-pole; Cod. A; with cable connection on the output side; black	www.wago.com/772-262
	Item no.771-9995/106-101 pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black	www.wago.com/771-9995/106-101
	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
	Item no.899-631/100-000 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
	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
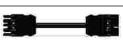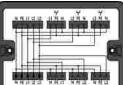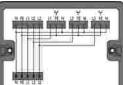
Required accessories

Locking levers

Locking system

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

	Item no.: 770-121	www.wago.com/770-121
	Locking lever; for flying leads; for manual operation; white	

	Item no.: 770-131	www.wago.com/770-131
	Locking lever; for flying leads; for tool operation; white	

	Item no.: 770-101	www.wago.com/770-101
	Locking lever; for flying leads; for manual operation; black	

	Item no.: 770-111	www.wago.com/770-111
	Locking lever; for flying leads; for tool operation; black	

Strain relief

Strain relief housing

	Item no.: 770-505/021-000	www.wago.com/770-505 /021-000
	Strain relief housing; 5-pole; for 1 cable; 11.5 … 16.5 mm; 71 mm; black	

	Item no.: 770-505/023-000	www.wago.com/770-505 /023-000
	Strain relief housing; 5-pole; for 2 cables; 5.0 … 9.0 mm; 55 mm; black	

	Item no.: 770-505	www.wago.com/770-505
	Strain relief housing; 5-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; black	

	Item no.: 770-515	www.wago.com/770-515
	Strain relief housing; 5-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; white	

	Item no.: 770-515/023-000	www.wago.com/770-515 /023-000
	Strain relief housing; 5-pole; for 2 cables; 5.0 … 9.0 mm; 55 mm; white	

	Item no.: 770-515/021-000	www.wago.com/770-515 /021-000
	Strain relief housing; 5-pole; for 1 cable; 11.5 … 16.5 mm; 71 mm; white	

Optional accessories

Tool

Wiring aid

	Item no.: 770-100	www.wago.com/770-100
	Wiring aid; 2- to 5-pole; Plastic; orange	

Operating tool

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Item no.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

www.wago.com/210-719

Cover

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

Mounting

Mounting accessories

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

Coding

Coding

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

www.wago.com/770-401

Marking accessories

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

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	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

Bid Text

770-215 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
770-215 doc - Datei	2015 Jun 8	doc 24.1 kB	Download

CAD/CAE-Data

CAE data

EPLAN Data Portal 770-215	URL	Download
ZUKEN Portal 770-215	URL	Download
WSCAD Universe 770-215	URL	Download

CAD data

2D/3D Models 770-215	URL	Download

Asset Administration Shell

| Asset Administration Shell 770-215	URL	Download

Environmental Product Compliance

Compliance Search

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URL   Download

Environmental Product Compliance 770-215

Plug; 5-pole; Cod. A; 4,00 mm²; black

Installation Notes

Conductor termination
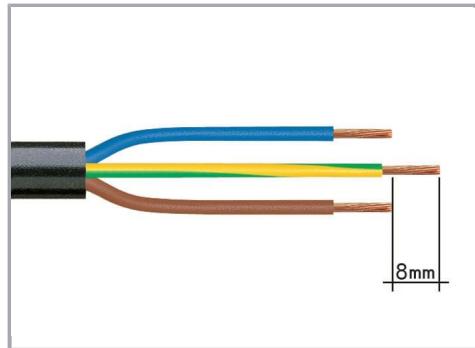
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm
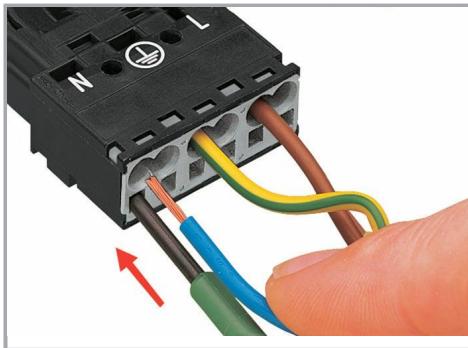
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.
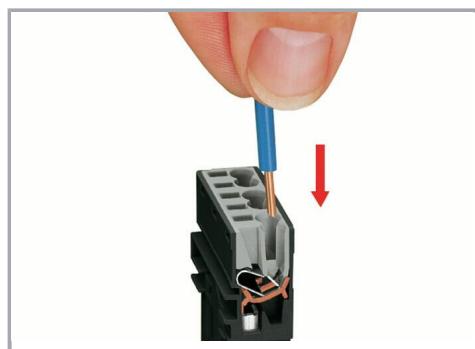
Insert the stripped solid conductor until it hits the backstop.
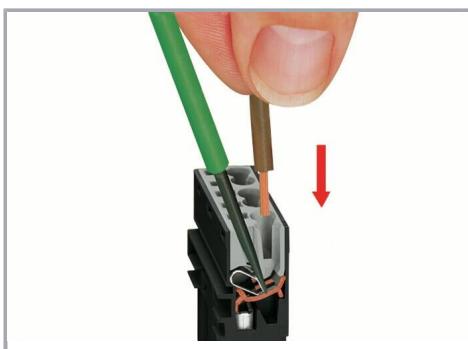
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

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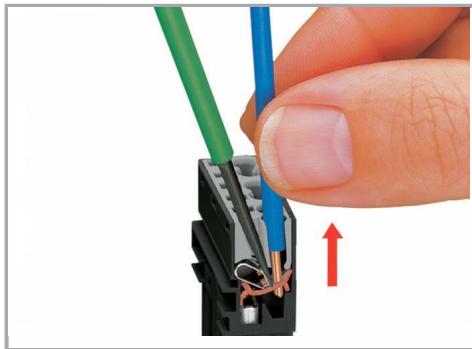
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

Installation
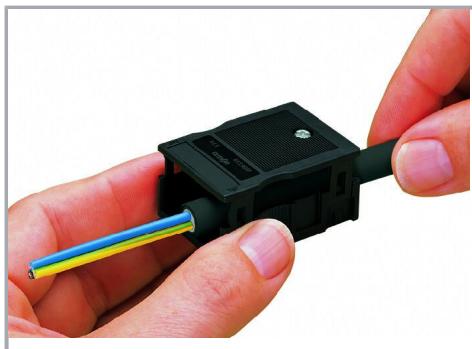
We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.
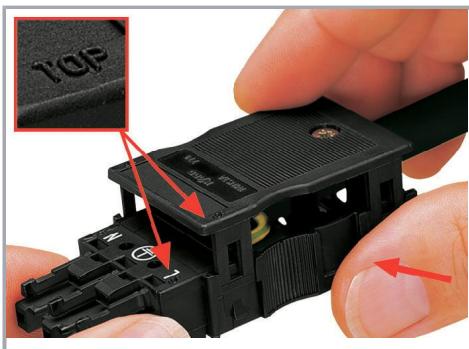
Latch the strain relief housing onto the plug /socket. Note the "TOP" inscription.
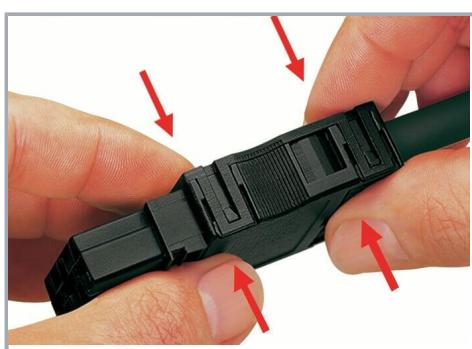
Prepare strain relief housing by snapping together upper and bottom part.
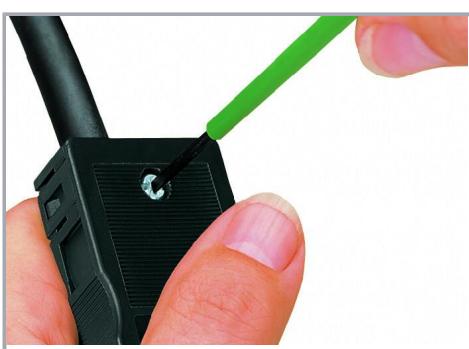
Tighten strain relief screw with screwdriver (2.5 mm blade width).

Product family

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WINSTA® MIDI
Show all products from the family

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