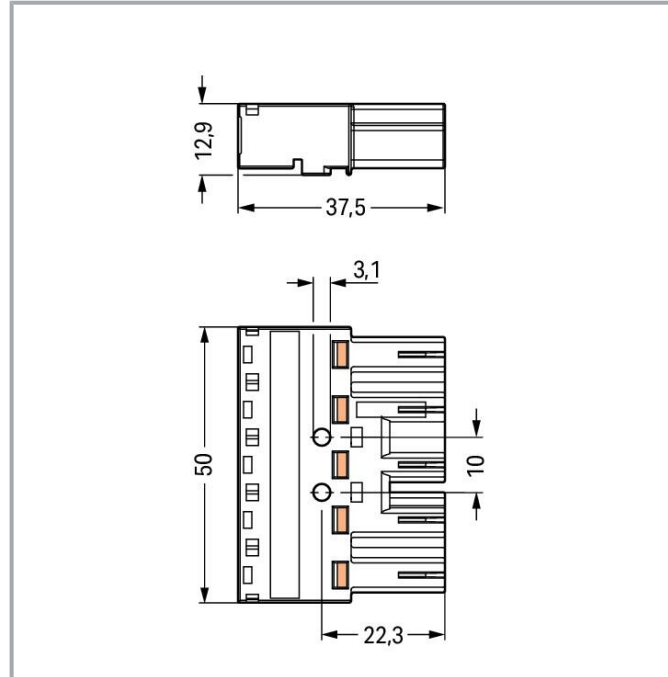
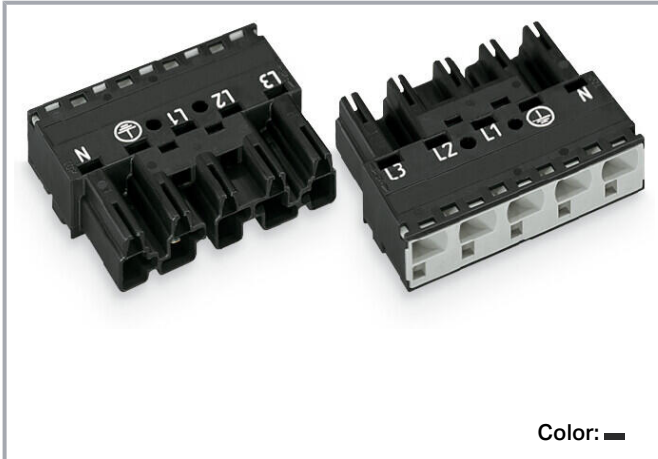


Data sheet | Item number: 770-415
Plug; 5-pole; Cod. A; 4,00 mm²; black

www.wago.com/770-415



Item description

Male connector/plug *WINSTA*® MIDI 5-pole

The *WINSTA*® MIDI male connector/plug with protection type IP20 allows installation of fine-stranded and solid conductors. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to many different requirements in seconds. The coding options reduce installation errors, allowing fast, maintenance-free wiring of all components. The pluggable installation connector offers touch-proof protection 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 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. Our *WINSTA*® MIDI product line achieves total flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it ensures error-free, time-saving installation and offers customization for meeting an enormous variety of installation requirements.

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

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

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and therefore faster, even more reliable, and error-free. Use of this pre-assembled system decreases assembly times and errors during installation at the construction site. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP20 from WAGO.

- protection against mismatching eliminates errors
- for automation controllers
- for any mains application
- exact dimensions
- fast, secure 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) ≙ 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
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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 mm ² / 12 AWG
Solid conductor	0.5 ... 4 mm ² / 20 ... 12 AWG
Solid conductor; push-in termination	1.5 ... 4 mm ² / 16 ... 12 AWG
Stranded conductor	0.5 ... 2.5 mm ² / 20 ... 14 AWG
Fine-stranded conductor	0.5 ... 4 mm ² / 20 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ² / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ² / 20 ... 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1.5 mm ² / 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 \perp N
Potential marking	L3 L2 L1 \perp 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)

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



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 <i>WINSTA</i> [®] 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	0.376 MJ
Weight	16.4 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
ECCN	NO DATA
PU (SPU)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918254717
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
	cURus Underwriters Laboratories Inc.	UL 1059	E 45172

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




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

	Item no.770-105 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-105
	Item no.770-205 Socket; 5-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-205
	Item no.770-305 Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-305

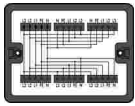
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	Item no.770-609 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black	www.wago.com/770-609
	Item no.770-405 Socket; 5-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-405
	Item no.770-611 Three-phase to single-phase distribution 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.770-622 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.770-621 T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/770-621
	Item no.770-659 3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white	www.wago.com/770-659
	Item no.770-640 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.770-705 Snap-in socket; 5-pole; Cod. A; 4,00 mm ² ; 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 mm ² ; 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 mm ² ; 1 m; 1,50 mm ² ; black	www.wago.com/771-9995/006-101
	Item no.772-262 Tap-off module; for flat cable; 5 x 2.5 mm ² + 2 x 1.5 mm ² ; 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 mm ² ; 1 m; 1,50 mm ² ; black	www.wago.com/771-9995/106-101
	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

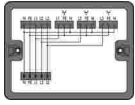
Subject to changes. Please also observe the further product documentation!



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.899-631/346-000

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



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

Optional accessories

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

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

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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



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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Bid Text

770-415 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
770-415 doc - Datei	2015 Jun 8	doc 24.1 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 770-415		URL	Download
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CAE data

EPLAN Data Portal 770-415		URL	Download
WSCAD Universe 770-415		URL	Download
ZUKEN Portal 770-415		URL	Download

Asset Administration Shell

Asset Administration Shell 770-415		URL	Download
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Environmental Product Compliance

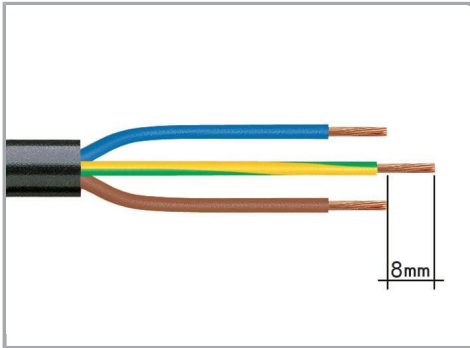
Compliance Search

Environmental Product Compliance 770-415 Plug; 5-pole; Cod. A; 4,00 mm ² ; black		URL	Download
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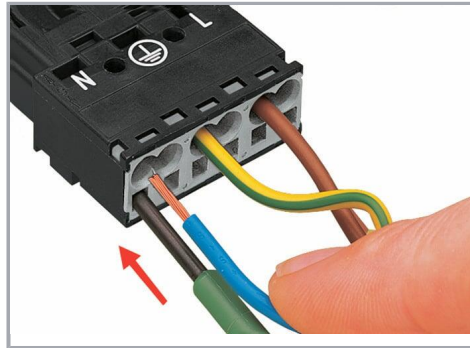
Installation Notes

Conductor termination

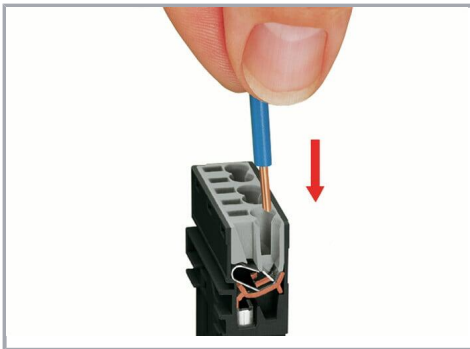
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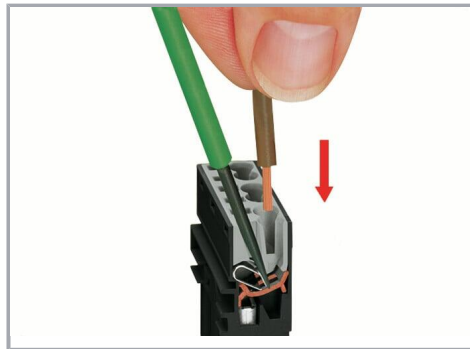
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

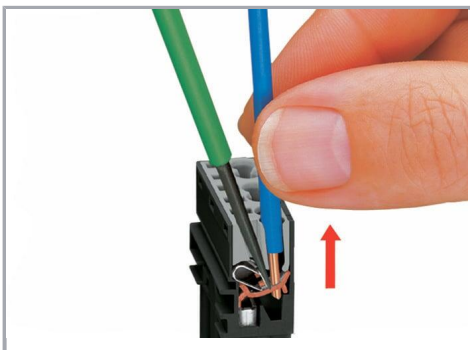


Insert the stripped solid conductor until it hits the backstop.



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.

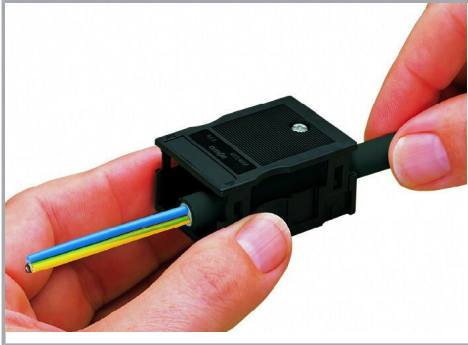
Conductor removal



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

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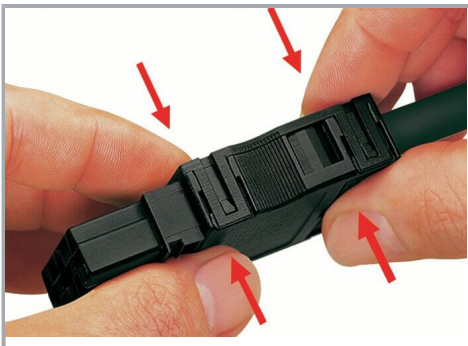
Installation



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](#)

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