

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

www.wago.com/770-415



Color:

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

WAGO GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

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

The *WINSTA*® MIDI male connector/plug rated current 25 A is the pluggable solution for your use in control cabinets, on PCBs or for lighting connections. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to various requirements in no time flat. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. 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!)). General 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 electrical currents up to 25 A. Thus the product is ideally suitable for high power loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in can be found in a variety of projects you can use for quick, easy, secure, tailored installation.

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

The *WINSTA*® Pluggable Connection System is perfectly tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and consequently faster, even more reliable, and error-free. Use of this pre-assembled system reduces 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 *WINSTA*® MIDI pluggable installation connectors with protection against mismatching from WAGO.

- effective protection against mismatching
- for automation controllers
- with A coding for a large number of 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

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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

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°

Physical data

Pin spacing

10 mm / 0.394 inches

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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 $\frac{1}{3}$ N
Potential marking	L3 L2 L1 $\frac{1}{3}$ 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!)

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

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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

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	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	EN 61535	71-

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



DEKRA Certification B.V.		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

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
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

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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
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

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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

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

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

Coding

Coding		
Item no.: 770-401		

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



Coding pin; for plugs; Plastic; gray

www.wago.com/770-401

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

Downloads

Documentation

Bid Text

770-415 X81 - Datei	2019 年2月19 日	xml 3.0 kB	Download
770-415 doc - Datei	2015 年6月8 日	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

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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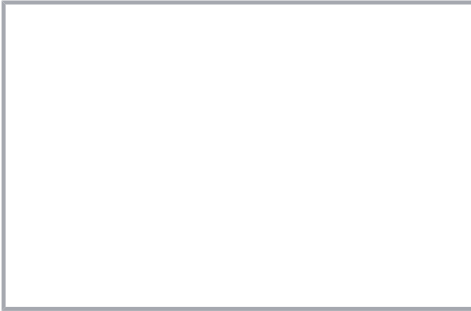
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Installation Notes

Conductor termination



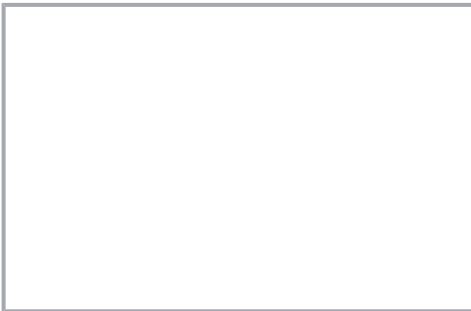
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)

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

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

WINSTA® MIDI

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



[Show all products from the family](#)

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