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

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	I .
Color:	

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### Item description

#### Male connector/plug WINSTA® MIDI A coding

For power and signal transmission: The *WINSTA*® MIDI male connector/plug with protection type IP20. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to a huge variety of requirements in next to no time. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical 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. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is also suitable for high power loads. Our *WINSTA*® MIDI product line achieves flexibility for the electrical installation. With its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees time-saving, error-free installation and offers flexibility and customization for meeting an enormous variety of installation requirements.

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

The WINSTA® Pluggable Connection System is ideally tailored to the strict requirements of building installation. It makes electrical installation pluggable, and consequently faster, even more reliable, and error-free. Using this pre-assembled system decreases time spent on assembly and installation errors at the construction site. Take advantage 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 mismating from WAGO.

- protection against mismating eliminates errors
- simple circuits
- with A coding for a great number of uses
- custom-engineered solutions
- convenient installation and commissioning

#### Data

#### Electrical data

#### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	250 V
Rated impulse voltage (III/3)	4 kV
Rated current	25 A

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Legend (ratings)	
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 approx. 0.25 m $\Omega$ contact transition plug/socket
Connection data	
Connection points	4
Total number of potentials	2
Total number of potentials  Connection 1  Connection technology	2 Push-in CAGE CLAMP <sup>®</sup>
Connection 1	
Connection 1 Connection technology	Push-in CAGE CLAMP <sup>®</sup> Operating tool
Connection 1  Connection technology  Actuation type	Push-in CAGE CLAMP <sup>®</sup> Operating tool  Push-in
Connection 1  Connection technology  Actuation type  Nominal cross-section	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm <sup>2</sup> / 12 AWG
Connection 1 Connection technology Actuation type Nominal cross-section Solid conductor	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm <sup>2</sup> / 12 AWG  0.5 4 mm <sup>2</sup> / 20 12 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm <sup>2</sup> / 12 AWG  0.5 4 mm <sup>2</sup> / 20 12 AWG  1.5 4 mm <sup>2</sup> / 16 12 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination  Stranded conductor	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm² / 12 AWG  0.5 4 mm² / 20 12 AWG  1.5 4 mm² / 16 12 AWG  0.5 2.5 mm² / 20 14 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination  Stranded conductor  Fine-stranded conductor	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm² / 12 AWG  0.5 4 mm² / 20 12 AWG  1.5 4 mm² / 16 12 AWG  0.5 2.5 mm² / 20 14 AWG  0.5 4 mm² / 20 12 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination  Stranded conductor  Fine-stranded conductor; with insulated ferrule	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm² / 12 AWG  0.5 4 mm² / 20 12 AWG  1.5 4 mm² / 16 12 AWG  0.5 2.5 mm² / 20 14 AWG  0.5 4 mm² / 20 15 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination  Stranded conductor  Fine-stranded conductor  Fine-stranded conductor; with insulated ferrule  Fine-stranded conductor; with uninsulated ferrule	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm² / 12 AWG  0.5 4 mm² / 20 12 AWG  1.5 4 mm² / 16 12 AWG  0.5 2.5 mm² / 20 14 AWG  0.5 4 mm² / 20 16 AWG  0.25 1.5 mm² / 20 16 AWG
Connection 1  Connection technology  Actuation type  Nominal cross-section  Solid conductor  Solid conductor; push-in termination  Stranded conductor  Fine-stranded conductor; with insulated ferrule  Fine-stranded conductor; with uninsulated ferrule  Fine-stranded conductor; with ferrule; push-in termination	Push-in CAGE CLAMP <sup>®</sup> Operating tool Push-in  4 mm² / 12 AWG  0.5 4 mm² / 20 12 AWG  1.5 4 mm² / 16 12 AWG  0.5 2.5 mm² / 20 14 AWG  0.5 4 mm² / 20 14 AWG  0.5 4 mm² / 20 14 AWG  1.5 4 mm² / 20 16 AWG  1.5 15 mm² / 20 14 AWG

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Pin spacing

Width

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10 mm / 0.394 inches

20 mm / 0.787 inches

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Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

#### **Mechanical Data**

General mains applications
A
Yes
N L
N L
approx. 20 70 N (depending on pole number)
Locked: > 80 N
Unlocked: approx. 20 70 N (depending on pole number)
200, without resistive load
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).

## **Material Data**

Note (material data)

Information on material specifications can be found here

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Color	black
Cover color	gray
Material group	1
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	0.139 MJ
Weight	6.5 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)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821028291
Customs tariff number	85366990990

## **Environmental Product Compliance**

## Approvals / Certificates

#### General approvals

			Certificate
Logo	Approval	Additional Approval Text	name
	CCA	IEC 61535	NL -84761
	DEKRA Certification B.V.		

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	CCA	EN 61535	71-
	DEKRA Certification B.V.		123228
	cURus	UL 1977	E45171
	Underwriters Laboratories Inc.		
	cURus	UL 1059	E 45172
	Underwriters Laboratories Inc.		
Declaration	ns of conformity and manufacturer's declarations		
			Certificate
Logo	Approval	Additional Approval Text	name
	EU-Declaration of Conformity	-	-
	WAGO GmbH & Co. KG		
Approvals 1	for marine applications		
			Certificate
Logo	Approval	Additional Approval Text	name
	ABS	-	19-
	American Bureau of Shipping		HG1868589-
			PDA
	DNV GL	-	TAE00001Z6
	Det Norske Veritas, Germanischer Lloyd		
	LR	IEC 61984	LR22429487TA
	Lloyds Register		

## Counterpart

Item no.770-1606		
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/770-1606	
Item no.770-102/041-000	www.wago.com/770-102/041-	
Socket; with strain relief housing; 2-pole; Cod. A; 4,00 mm <sup>2</sup> ; black	000	
Item no.770-1615	www.wago.com/770-1615	
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	www.wago.com///0-1015	
Item no.770-1634		
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers;	www.wago.com/770-1634	
black		
Item no.770-1636		
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for	r www.wago.com/770-1636	
flying leads; black		
Item no.770-202	WANA Wago com/770-202	
Socket; 2-pole; Cod. A; 4,00 mm²; black	www.wago.com/770-202	
Item no.771-8992/006-101	e; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; /006-101	
pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m;		
1,50 mm²; black	7000-101	
Item no.771-8992/106-101		
	www.wago.com/771-8992	

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pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm $^2$ ; 1 m; 1,50 mm $^2$ ; black	/106-101
Item no.899-631/477-000	www.wago.com/899-631/477-
Distribution box; Single-phase current (230 V); 1 input; 11 outputs; Cod. A; MIDI	000

## Required accessories

Strain relief	
Strain relief housing	
Item no.: 770-502/041-000 Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 10.5 mm; 35 mm; black	www.wago.com/770-502 /041-000
Item no.: 770-502/042-000	www.wago.com/770-502
Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 9.0 mm; 35 mm; black	/042-000
Item no.: 770-512/041-000	www.wago.com/770-512
Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 10.5 mm; 35 mm; white	/041-000
Item no.: 770-512/042-000	www.wago.com/770-512
Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 9.0 mm; 35 mm; white	/042-000
ocking levers	
Locking system	
Item no.: 770-121	www.wago.com/770-121
Locking lever; for flying leads; for manual operation; white	www.wago.com///0-121
Item no.: 770-131	www.wago.com/770-131
Locking lever; for flying leads; for tool operation; white	www.wago.com/170-131
Item no.: 770-101	www.wago.com/770-101
Locking lever; for flying leads; for manual operation; black	www.wago.com/770-101
Item no.: 770-111	www.wago.com/770-111
Locking lever; for flying leads; for tool operation; black	www.wago.com/770-111

## Optional accessories

Cover		
Cover		
	Item no.: 770-360	www.wago.com/770-360
	Lockout cap; for plugs; 5-pole; separable; yellow	www.wago.com///o-300
	Item no.: 897-2003	
	Protective cap; Type2; for sockets and plugs; PVC; red	www.wago.com/897-2003
Mounting		

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Mounting	accessories
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Item no.: 770-317	
Snap-in frame; 2-pole; 1.0 3.0 mm; black	www.wago.com/770-317
Item no.: 770-337	
Snap-in frame; 2-pole; 1.0 3.0 mm; white	www.wago.com/770-337
Item no.: 897-2100	(007.0400
Mounting plate; for Snap-in; Plastic; for detectors and sensors; Ø 200 mm; red	www.wago.com/897-2100
Tool	
Operating tool	
Item no.: 210-719	WARNING COM/210 710
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft	www.wago.com/210-719
Item no.: 770-382	770 000
Operating tool; 2-way; green	www.wago.com/770-382

## Downloads

## Documentation

## **Bid Text**

770-212 X81 - Datei	2019 年2月19日	xml 3.0 kB	Download
770-212 doc - Datei	2015 年6月8日	doc 24.1 kB	Download

## CAD/CAE-Data

## CAE data

EPLAN Data Portal 770-212	URL	Download
WSCAD Universe 770-212	URL	Download
ZUKEN Portal 770-212	URL	Download
CAD data		
2D/3D Models 770-212	URL	Download

## **Environmental Product Compliance**

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**Compliance Search** 

Environmental Product Compliance 770-212 URL Download

Plug; 2-pole; Cod. A; 4,00 mm²; black

Installation Notes	
Conductor termination	
<ol> <li>Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)</li> <li>Strip length = 9 mm</li> <li>Extended ground conductor = 8 mm</li> </ol>	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.  Conductor removal	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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# www.wago.com/770-212 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 Latch the strain relief housing onto the plug relief housing over the cable prior to /socket. Note the "TOP" inscription. termination. However, the strain relief can be mounted at a later time as well. Prepare strain relief housing by snapping Tighten strain relief screw with screwdriver (2.5 mm blade width). together upper and bottom part. **Product family** WINSTA® MIDI

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Data sheet | Item number: 770-212

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Show all products from the family

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