

Data sheet | Item number: 770-103

Socket; with strain relief housing; 3-pole; Cod. A; 4,00 mm²; black

www.wago.com/770-103

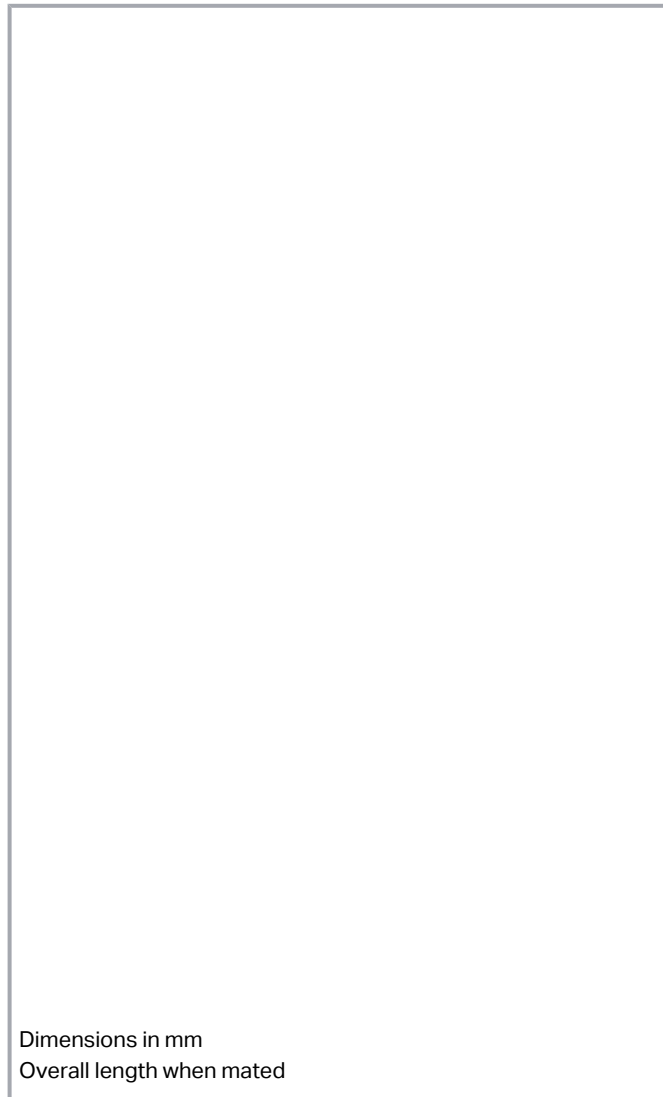


Color:

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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

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Item description

Female connector/socket *WINSTA*® MIDI with strain relief

The *WINSTA*® MIDI female connector/socket rated current 25 A provides the foundation for assembly of fine-stranded and solid conductors. WAGO pluggable installation connectors are useful when criteria repeat or are planned on a defined pattern, for example for installing grid lighting or flush-mount lighting. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. 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 especially suitable for high power loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in a

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broad range of individual products you can use for quick, easy, flexible, and secure installation. A range up to 55 mm can be used for the strip length.

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 allows error-free installation of cables and components, quickly and reliably. Choose durability and quality – the WINSTA® MIDI pluggable installation connector with marking from WAGO makes the installation of electrical components significantly easier.

- protection against mismatching eliminates errors
- for automation controllers
- for any mains application
- flexible installation to save space
- 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
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	6
Total number of potentials	3
Number of test slots	3

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	3
Connectable sheathed cable diameter	8 ... 11.5 mm
Conductor entry direction to mating direction	0°
Strip length (outer insulation)	55 mm

Physical data

Pin spacing	10 mm / 0.394 inches
Width	34.6 mm / 1.362 inches
Height	15 mm / 0.591 inches
Depth	76 mm / 2.992 inches

Mechanical Data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	L $\frac{1}{3}$ N
Potential marking	L $\frac{1}{3}$ N
Mating force of a plug-in connection	approx. 20 ... 70 N (depending on pole number)

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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	IP2XC; 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)	Female connector/socket
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).
Strain relief	strain relief housing

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	0.447 MJ
Strain relief color	black

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Weight	20 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)	25 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918252096
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
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808
	VDE VDE Prüf- und Zertifizierungsinstitut	EN 61984	40002889

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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.770-113 Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-113
Item no.770-213 Plug; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-213
Item no.770-213/035-000 Plug; with strain relief housing; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-213/035-000
Item no.770-213/002-000 Plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-213/002-000
Item no.770-606 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/770-606
Item no.770-607 3-way distribution connector; 3-pole; Cod. A; 1 input; 3 outputs; black	www.wago.com/770-607
Item no.770-608 5-way distribution connector; 3-pole; Cod. A; 1 input; 5 outputs; outputs on both sides; black	www.wago.com/770-608
Item no.770-615 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	www.wago.com/770-615
Item no.770-633 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/770-633
Item no.770-635 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; black	www.wago.com/770-635
Item no.770-634 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black	www.wago.com/770-634
Item no.770-637	

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Distribution connector for switches; Single-pole switch and series circuit; 3-pole; Cod. A/S; 1 input; 5 outputs; black	www.wago.com/770-637
Item no.770-636 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black	www.wago.com/770-636
Item no.770-713 Snap-in plug; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-713
Item no.770-638 Distribution connector for switches; Single-pole and throttle two-way circuit; 3-pole; Cod. A/S; 1 input; 5 outputs; black	www.wago.com/770-638
Item no.770-813 Plug for PCBs; straight; 3-pole; Cod. A; black	www.wago.com/770-813
Item no.770-713/007-000 Snap-in plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm ² ; black	www.wago.com/770-713/007-000
Item no.771-9993/006-101 pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; H05VV-F 3G 1.5 mm ² ; 1 m; 1,50 mm ² ; black	www.wago.com/771-9993/006-101
Item no.770-813/011-000 Plug for PCBs; angled; 3-pole; Cod. A; black	www.wago.com/770-813/011-000
Item no.771-9993/206-101 pre-assembled connecting cable; Eca; Plug/open-ended; 3-pole; Cod. A; H05VV-F 3G 1.5 mm ² ; 1 m; 1,50 mm ² ; black	www.wago.com/771-9993/206-101

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

Tool

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
Item no.: 770-383	www.wago.com/770-383

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Operating tool; 3-way; green

Cover

Cover

Item no.: 770-201

Lockout cap; 12-pole, separable; for sockets; Plastic; black

www.wago.com/770-201**Item no.: 770-221**

Lockout cap; 12-pole, separable; for sockets; Plastic; white

www.wago.com/770-221**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****Bid Text**

770-103 X81 - Datei	2019 年2月19 日	xml 3.1 kB	Download
770-103 doc - Datei	2015 年6月8 日	doc 24.1 kB	Download
ausschreiben.de 770-103		URL	Download

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CAD/CAE-Data

CAD data

2D/3D Models 770-103	URL	Download
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CAE data

EPLAN Data Portal 770-103	URL	Download
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WSCAD Universe 770-103	URL	Download
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ZUKEN Portal 770-103	URL	Download
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Environmental Product Compliance

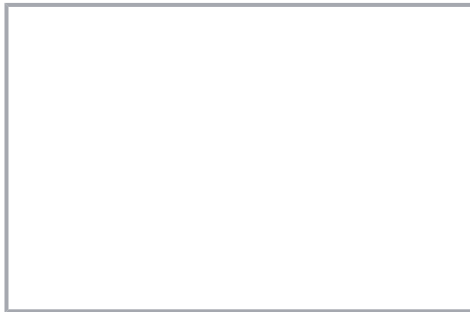
Compliance Search

Environmental Product Compliance 770-103	URL	Download
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Socket; with strain relief housing; 3-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.

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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

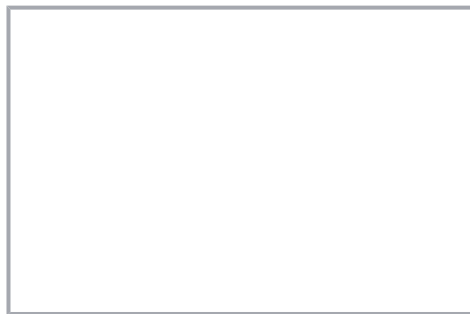


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

Installation



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.

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



Prepare strain relief housing by snapping together upper and bottom part.



Tighten strain relief screw with screwdriver (2.5 mm blade width).

Coding



Simply cut off the coding pin from the socket.



Insert coding pin into plug (break first) until it engages.

Shield termination



Connector with shield termination



Apply the shield to the sheathed cable.

Strip length, outer insulation = 55 mm

Shield length = 10 mm

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Push the shield connecting plate into the connector until fully inserted.



First insert the wired connector into a strain relief housing, then snap cover and tighten screw.

Product family

WINSTA® MIDI

[Show all products from the family](#)

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