

Data sheet | Item number: 770-224

Socket; 4-pole; Cod. A; 4,00 mm²; white

www.wago.com/770-224



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

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Item description

Female connector/socket WINSTA® MIDI with protection type IP20

Use effective pluggable connections instead of laborious screw connections: With the WINSTA® MIDI female connector/socket rated current 25 A. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to various requirements in seconds. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismatching. 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. Important parameters in the selection of a pluggable installation connector are the rated current and voltage: They tell us about the product's domains of use. This product has a current rating of 25 A – as a result it is also suitable for powerful loads. The WINSTA® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates precise electrification. Due to the built-in test slot, connections can be checked even when they are plugged in. That saves time and reduces installation labor and expense.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and consequently more efficient, even more reliable, and error-free. Using this pre-assembled system decreases assembly times and installation errors at the construction site. Now you can also reduce installation costs without compromising safety and quality: The WINSTA® MIDI pluggable installation connector with protection against mismatching reduces the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- for automation controllers
- with A coding for use in many general mains applications
- custom-engineered solutions
- 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

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Rated current	25 A
Legend (ratings)	(III / 3) \triangleq 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 m Ω of contact resistance approx. 0.25 m Ω contact transition plug/socket
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Connection data

Connection points	8
Total number of potentials	4

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	4
Conductor entry direction to mating direction	0°

Physical data

Pin spacing	10 mm / 0.394 inches
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Width	40 mm / 1.575 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	N ∇ 2/L 1/L'
Potential marking	N ∇ 2/L 1/L'
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)	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).

Material Data

Note (material data)

Information on material specifications can be found here

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



Color	white
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	0.218 MJ
Weight	12.5 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)	50 pcs
Packaging type	box
Country of origin	DE
GTIN	4044918252386
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	IEC 61535	NL -84761

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DEKRA Certification B.V.		
CCA DEKRA Certification B.V.	EN 61535	71- 123228
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.770-134 Plug; with strain relief housing; 4-pole; Cod. A; 4,00 mm ² ; white	www.wago.com/770-134
Item no.770-234 Plug; 4-pole; Cod. A; 4,00 mm ² ; white	www.wago.com/770-234
Item no.770-6224 Linect® T-connector; 4-pole; Cod. A; 1 input; 2 outputs; white	www.wago.com/770-6224
Item no.770-676 T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white	www.wago.com/770-676
Item no.770-677 T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white	www.wago.com/770-677
Item no.770-734 Snap-in plug; 4-pole; Cod. A; 4,00 mm ² ; white	www.wago.com/770-734
Item no.770-734/007-000 Snap-in plug; with direct ground contact; 4-pole; Cod. A; 4,00 mm ² ; white	www.wago.com/770-734/007-000
Item no.770-994	

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h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white	www.wago.com/770-994
Item no.770-834 Plug for PCBs; straight; 4-pole; Cod. A; white	www.wago.com/770-834
Item no.770-834/011-000 Plug for PCBs; angled; 4-pole; Cod. A; white	www.wago.com/770-834/011-000
Item no.770-995 h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white	www.wago.com/770-995
Item no.771-9994/006-102 pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm ² ; 1 m; 1,50 mm ² ; white	www.wago.com/771-9994/006-102
Item no.771-9994/206-102 pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm ² ; 1 m; 1,50 mm ² ; white	www.wago.com/771-9994/206-102

Required accessories

Strain relief

Strain relief housing

Item no.: 770-504/023-000 Strain relief housing; 4-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black	www.wago.com/770-504/023-000
Item no.: 770-514 Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white	www.wago.com/770-514
Item no.: 770-504 Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black	www.wago.com/770-504
Item no.: 770-514/023-000 Strain relief housing; 4-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white	www.wago.com/770-514/023-000

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

Cover

Cover

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



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

Optional accessories

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

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

Cover

Cover

Item no.: 897-2005

Protective cap; Type4; for sockets and plugs; PVC; red

www.wago.com/897-2005

Mounting

Mounting accessories

Item no.: 770-319

Snap-in frame; 4-pole; 1.0 ... 3.0 mm; black

www.wago.com/770-319

Item no.: 770-339

Snap-in frame; 4-pole; 1.0 ... 3.0 mm; white

www.wago.com/770-339

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Downloads

Documentation

Bid Text

770-224 X81 - Datei	2019 年2月19 日	xml 3.0 kB	Download
770-224 docx - Datei	2018 年4月10 日	docx 14.7 kB	Download
770-224 doc - Datei	2018 年4月10 日	doc 24.1 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 770-224	URL	Download
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CAE data

EPLAN Data Portal 770-224	URL	Download
WSCAD Universe 770-224	URL	Download
ZUKEN Portal 770-224	URL	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-224 Socket; 4-pole; Cod. A; 4,00 mm ² ; white	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

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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

WINSTA® MIDI

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[Show all products from the family](#)

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