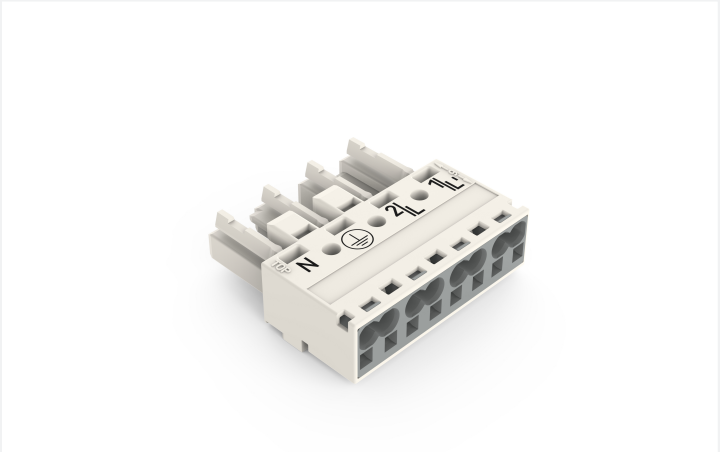
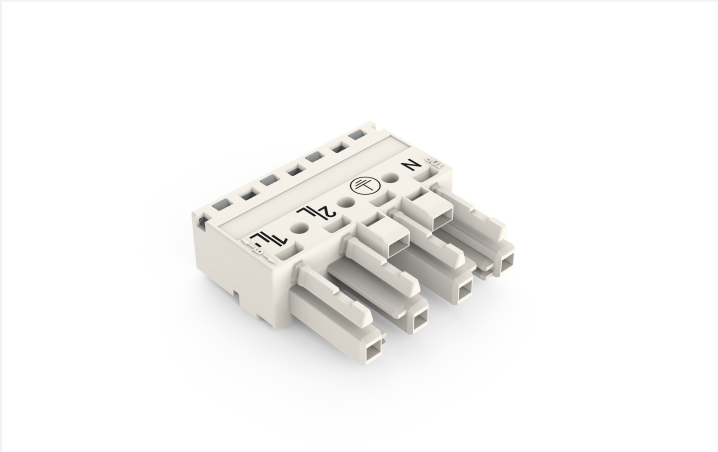
Data Sheet | Item Number: 770-224

Socket; 4-pole; Cod. A; white

https://www.wago.com/770-224





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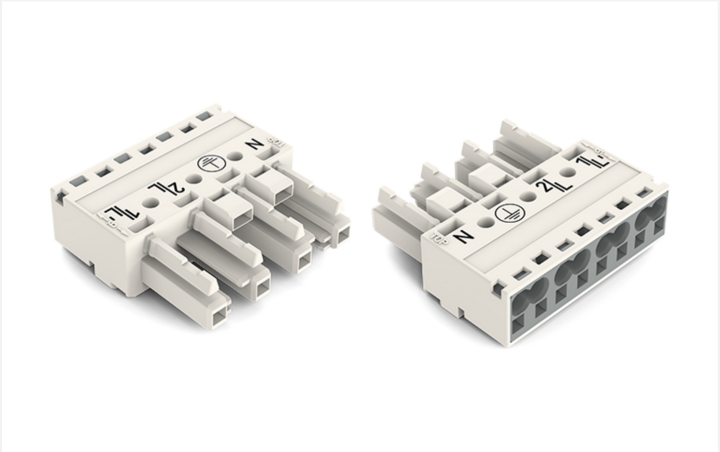
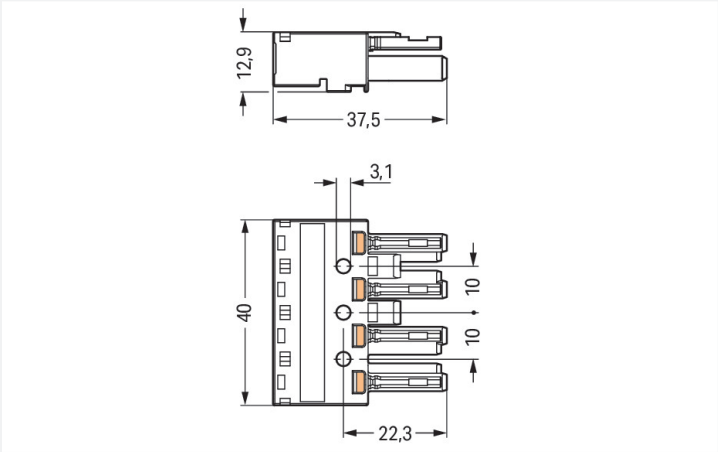




Dimensions in mm

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 A coding. Our pluggable installation connectors with spring pressure connection technology function entirely without screw connections. They allow flexible, error-free installation in numerous applications. For greater protection in electrical installations, the pluggable installation connector is provided 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!)). General mains applications for almost any domain of use can be realised with *WINSTA*® MIDI pluggable installation connectors with A coding. This pluggable installation connector can be employed for a load of up to 25 A. Therefore, it can also be used for high power loads. The *WINSTA*® MIDI product line achieves flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees error-free, time-saving installation and offers customization and flexibility for meeting various installation requirements.

Push-in CAGE CLAMP® spring pressure connection technology – pluggable installation instead of laborious screw connections!

The WINSTA® Pluggable Connection System is ideally tailored to the strict requirements of building installation. It makes electrical installation pluggable, and therefore faster, more reliable, and error-free. Using this pre-assembled system decreases assembly times and errors during installation at the construction site. Now you can also lower installation expenses without compromising safety and quality: with protection type IP20 reduces the need for servicing and prevents unnecessary downtime.

- pluggable installation connectors with protection against mismating
- for automation controllers
- for any mains application

- exact dimensions
- quick replacement of defective units during ongoing operation

Notes

General safety information	**NOTICE: Observe installation and safety instructions!** • Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden! • Nicht unter Spannung/Last installieren! • Nur für bestimmungsgemäßen Gebrauch einsetzen! • Nationale Vorschriften/Normen/Richtlinien beachten! • Technische Daten der Produkte beachten! • Auf die richtige Polbelegung achten! • Keine beschädigten/verschmutzten Komponenten verwenden! • Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten! • Leiter bis zum Anschlag einführen! • Nur mit Verriegelungsklinke und Zugentlastung verwenden! • Originalzubehör verwenden! **To be sold only with installation instructions!**

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated impulse withstand voltage	6 kV	-	-
Rated current	25 A	-	-

Approvals per	UL 1977
Rated voltage	600 V
Rated current	23 A

General information

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket

Connection Data

Clamping units	8
Total number of potentials	4

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	4
Conductor entry direction to mating direction	0 °

 Continued on next page

Physical data

Pin spacing	10 mm / 0.394 inches
Width	40 mm / 1.575 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

Mechanical data

Use	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 *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
Color	white
Cover color	gray
Material group	I
Insulation material (main housing)	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	0.215 MJ
Weight	12.8 g

Continued on next page

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)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918252386
Customs tariff number	85366990990

Product Classification

UNSPSC	39121421
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	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 61984	40002889

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Continued on next page

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0095977-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-224

Documentation

Bid Text

770-224	19.02.2019	xml 2.93 KB
770-224	10.04.2018	doc 23.50 KB
770-224	10.04.2018	docx 14.40 KB

CAD/CAE-Data

CAD data

2D/3D Models 770-224

CAE data

EPLAN Data Portal 770-224

WSCAD Universe 770-224

ZUKEN Portal 770-224

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 771-9994/206-102
pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; white

Item No.: 771-9994/006-102
pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; white

1.1.2 Distribution connector

Item No.: 770-994
h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

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

Item No.: 770-6224
Linect® T-connector; 4-pole; Cod. A; 1 input; 2 outputs; white

Item No.: 770-676
T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

Item No.: 770-677
T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white

1.1.3 Male connector/plug

Item No.: 770-834/011-000
Plug for PCBs; angled; 4-pole; Cod. A; white

Item No.: 770-834
Plug for PCBs; straight; 4-pole; Cod. A; white

Item No.: 770-234
Plug; 4-pole; Cod. A; white

Item No.: 770-134
Plug; with strain relief housing; 4-pole; Cod. A; 4,00 mm²; white

Item No.: 770-734
Snap-in plug; 4-pole; Cod. A; white

Item No.: 770-734/007-000
Snap-in plug; with direct ground contact; 4-pole; Cod. A; white

1.2 Required Accessories

1.2.1 Cover

1.2.1.1 Cover

Item No.: 770-201
Lockout cap; 12-pole, separable; for sockets; Plastic; black

Item No.: 770-221
Lockout cap; 12-pole, separable; for sockets; Plastic; white

Continued on next page

1.2.2 Locking system

1.2.2.1 Locking system

Item No.: 770-101
Locking lever; for flying leads; for manual operation; black

Item No.: 770-121
Locking lever; for flying leads; for manual operation; white

Item No.: 770-111
Locking lever; for flying leads; for tool operation; black

Item No.: 770-131
Locking lever; for flying leads; for tool operation; white

1.2.3 Strain relief

1.2.3.1 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

Item No.: 770-514/023-000
Strain relief housing; 4-pole; for 2 cables; 5.0 … 9.0 mm; 55 mm; white

Item No.: 770-504
Strain relief housing; 4-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; black

Item No.: 770-514
Strain relief housing; 4-pole; for 2 cables; 9.0 … 13.0 mm; 55 mm; white

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 Cover

Item No.: 897-2005
Protective cap; Type4; for sockets and plugs; PVC; red

1.3.2 Installation

1.3.2.1 Mounting accessories

Item No.: 770-319
Snap-in frame; 4-pole; 1.0 … 3.0 mm; black

Item No.: 770-339
Snap-in frame; 4-pole; 1.0 … 3.0 mm; white

1.3.3 Marking

1.3.3.1 Marker

Item No.: 770-450/000-006
Marker card; Plastic; blue

Item No.: 770-450/000-001
Marker card; Plastic; green

Item No.: 770-450/000-012
Marker card; Plastic; orange

Item No.: 770-450/000-005
Marker card; Plastic; red

Item No.: 770-450
Marker card; Plastic; white

Item No.: 770-450/000-002
Marker card; Plastic; yellow

Continued on next page

1.3.4 Strain relief

1.3.4.1 Strain relief housing

Item No.: 770-504/020-000
Strain relief housing; 4-pole; for 1 cable; 11.5 … 16.5 mm; 71 mm; black

1.3.5 Tool

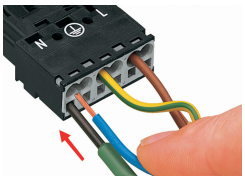
1.3.5.1 Operating tool

Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

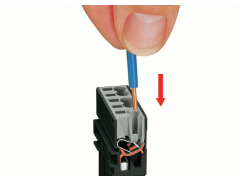
Installation Notes

Conductor termination

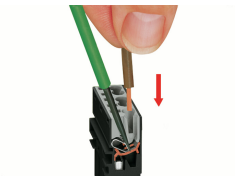
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

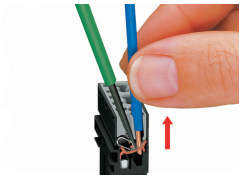


Insert the stripped solid conductor until it hits the backstop.



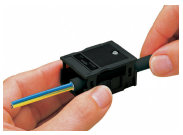
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal



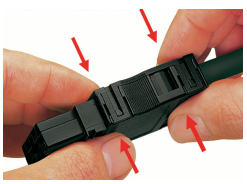
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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).