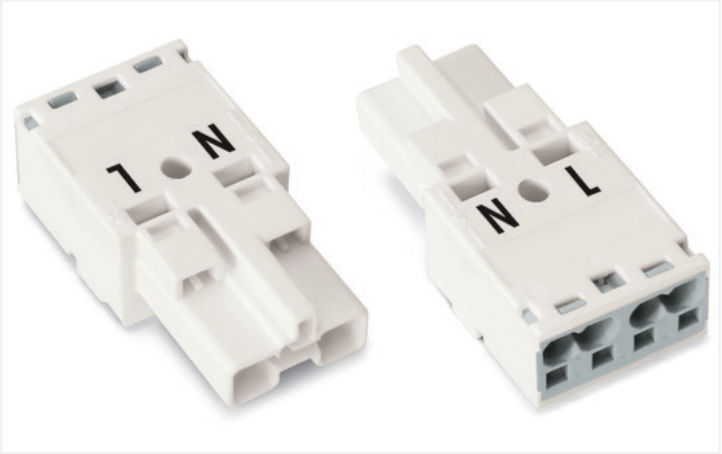
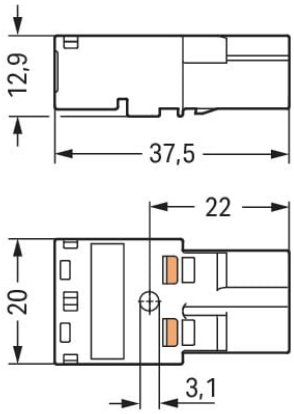
Data Sheet | Item Number: 770-232

Plug; 2-pole; Cod. A; 4,00 mm²; white

https://www.wago.com/770-232



Color: white



Dimensions in mm

Male connector/plug *WINSTA*® MIDI A coding

The *WINSTA*® MIDI male connector/plug 2-pole supports rapid, correct installation. The pluggable installation connectors with spring pressure connection technology function completely without screw connections. They allow fast, efficient, error-free installation in a large number of applications. The coding options reduce installation errors, allowing fast, maintenance-free wiring of all components. 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!)). The *WINSTA*® MIDI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. The rated current and voltage are important criteria for selecting a pluggable installation connector: They provide information about possible domains of use and applications. This product has a current rating of 25 A – as a result it is also suitable for robust loads. The *WINSTA*® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates safe electrification. Thanks 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

WINSTA® is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It ensures error-free installation of cables and components, quickly and reliably. Now you can also cut installation costs without compromising quality and safety: The *WINSTA*® MIDI pluggable installation connector with protection against mismating eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismating eliminates errors
- for automation controllers
- with A coding for use in many general mains applications
- custom-engineered solutions
- convenient installation and commissioning

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	-	-
Rated surge voltage	4 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

Connection points	4
Total number of potentials	2

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	2
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	10 mm / 0.394 inches
Width	20 mm / 0.787 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 L
Potential marking	N 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)	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).

Continued on next page

Material data

Note (material data)	Information on material specifications can be found here
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	0.139 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	4050821028314
Customs tariff number	85366990990

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

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	-	19-HG1868589-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-232

Documentation

Bid Text

770-232	19.02.2019	xml 2.93 KB
770-232	08.06.2015	doc 23.50 KB

CAD/CAE-Data

CAD data

2D/3D Models 770-232

CAE data

EPLAN Data Portal 770-232

WSCAD Universe 770-232

ZUKEN Portal 770-232

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 771-8992/106-102
pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; 1,50 mm²; white

Item No.: 771-8992/006-102
pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; 1,50 mm²; white

Continued on next page

1.1.2 Distribution connector

Item No.: 770-1684
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

Item No.: 770-1686
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white

Item No.: 770-1656
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

Item No.: 770-1665
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; white

1.1.3 Female connector/socket

Item No.: 770-222
Socket; 2-pole; Cod. A; 4,00 mm²; white

Item No.: 770-122/041-000
Socket; with strain relief housing; 2-pole; Cod. A; 4,00 mm²; white

1.2 Required Accessories

1.2.1 Locking system

1.2.1.1 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

1.2.2 Strain relief

1.2.2.1 Strain relief housing

Item No.: 770-502/042-000
Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 … 9.0 mm; 35 mm; black

Item No.: 770-512/042-000
Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 … 9.0 mm; 35 mm; white

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

Item No.: 770-512/041-000
Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 … 10.5 mm; 35 mm; white

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 Cover

Item No.: 770-360
Lockout cap; for plugs; 5-pole; separable; yellow

Item No.: 897-2003
Protective cap; Type2; for sockets and plugs; PVC; red

Continued on next page

1.3.2 Installation

1.3.2.1 Mounting accessories

Item No.: 897-2100
Mounting plate; for Snap-in; Plastic; for detectors and sensors ; Ø 200 mm; red

Item No.: 770-317
Snap-in frame; 2-pole; 1.0 … 3.0 mm; black

Item No.: 770-337
Snap-in frame; 2-pole; 1.0 … 3.0 mm; white

1.3.3 Tool

1.3.3.1 Operating tool

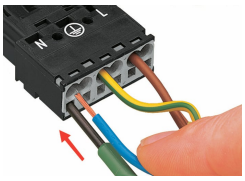
Item No.: 770-382
Operating tool; 2-way; green

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

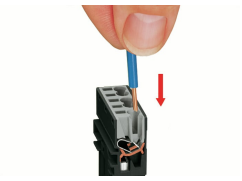
Installation Notes

Conductor termination

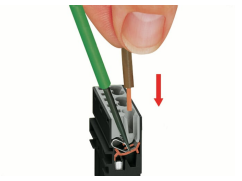
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

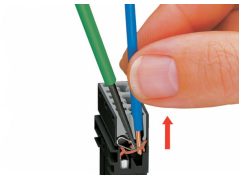


Insert the stripped solid conductor until it hits the backstop.



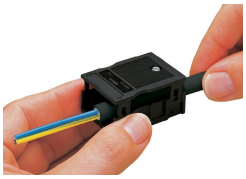
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

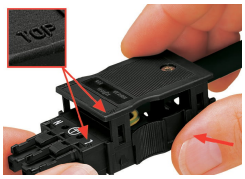


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

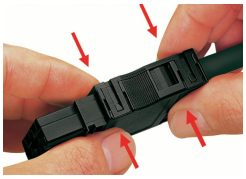
Installation



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).