

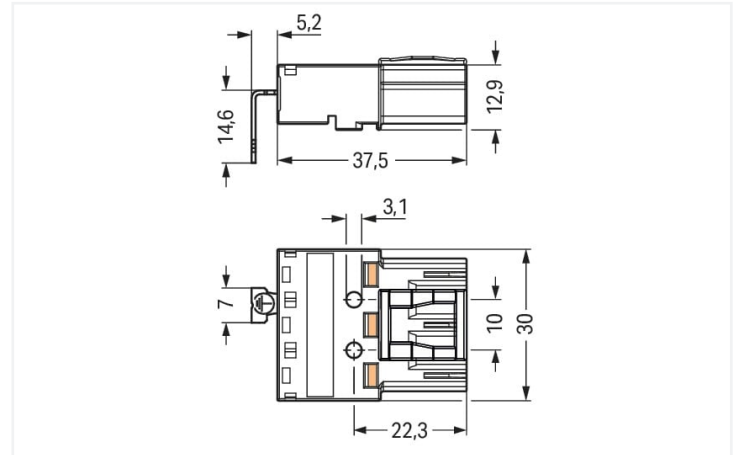
Data Sheet | Item Number: 770-233/002-000

Plug; with direct ground contact; 3-pole; Cod. A; 4,00 mm²; white

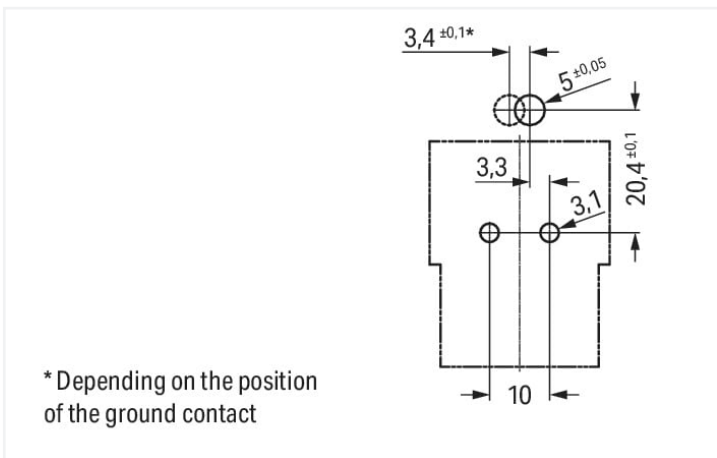
<https://www.wago.com/770-233/002-000>



Color: ■ white



Dimensions in mm



* Depending on the position of the ground contact

Dimensions in mm

Male connector/plug WINSTA® MIDI with protection type IP20

The WINSTA® MIDI male connector/plug rated current 25 A is the pluggable solution for your application in control cabinets, for lighting connections or on PCBs. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to an enormous variety of requirements in next to no time. The coding options reduce installation errors, allowing fast, secure wiring of all components. The pluggable installation connector is protected in accordance with protection type IP20. This means that users' fingers will never come into contact with energised contact elements. 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 can be used for electrical currents up to 25 A. Thus the product is also suitable for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in can be found in a variety of projects you can use for quick, easy, secure, tailored electrical installation.

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

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Choose durability and quality – the WINSTA® MIDI pluggable installation connector with protection type IP20 from WAGO makes the installation of electrical components visibly easier.

- effective protection against mismatching
- for automation controllers
- suitable for any application
- custom-engineered solutions
- quick replacement of defective units during ongoing operation



Notes	
Safety information	Application note for the U.S. market (USR): 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.
Note	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).

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	6
Total number of potentials	3
PE function	Preceding PE contact

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
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	3
Conductor entry direction to mating direction	0°

Physical data	
Pin spacing	10 mm / 0.394 inches
Width	30 mm / 1.181 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches
Drilled hole diameter with tolerance	5 (-0.05 ... +0.05) mm

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
Design	with direct ground contact
Protection type	IP20

Plug-in connection

Contact type (pluggable connector)	Male connector/plug
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	Yes
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	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	0.223 MJ
Weight	11.4 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		
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		4045454829551
Customs tariff number		85366990990

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations	
 			
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 1059	E 45172	

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

Approvals for marine applications		
  		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1868589-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA



Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 770-233/002-000			

Documentation

Bid Text			
770-233/002-000	19.02.2019	xml 3.14 KB	
770-233/002-000	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 770-233/002-000	

CAE data	
WSCAD Universe 770-233/002-000	

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9993/106-102
pre-assembled connecting cable; Eca;
Socket/open-ended; 3-pole; Cod. A;
H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; white



Item No.: 771-9993/006-102
pre-assembled interconnecting cable;
Eca; Socket/plug; 3-pole; Cod. A; H05VV-F 3G 1.5 mm²; 1 m; 1,50 mm²; white

1.1.2 Female connector/socket



Item No.: 770-223
Socket; 3-pole; Cod. A; 4,00 mm²; white



Item No.: 770-123
Socket; with strain relief housing; 3-pole;
Cod. A; 4,00 mm²; white



Item No.: 770-223/035-050
Socket; with strain relief housing; 3-pole;
Cod. A; 4,00 mm²; white

1.2 Required Accessories

1.2.1 Cover

1.2.1.1 Cover



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

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

1.3 Optional Accessories

1.3.1 Coding

1.3.1.1 Coding



Item No.: 770-401
Coding pin; for plugs; Plastic; gray

1.3.2 Marking

1.3.2.1 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

1.3.3 Tool

1.3.3.1 Operating tool



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