Plug; with strain relief housing; 2-pole; Cod. A; 4,00 mm²; black

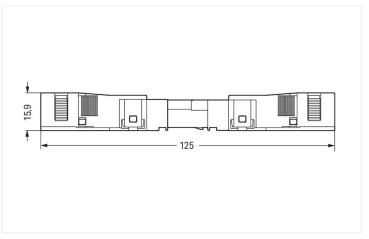
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71 - 749

Color: ■ black Dimensions in mm



Dimensions in mm Overall length when mated

Male connector/plug WINSTA® MIDI 2-pole

The WINSTA® MIDI male connector/plug 2-pole supports rapid, correct installation. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to a huge variety of requirements in seconds. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including 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!)). Standard 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 used for a current load of up to 25 A. Therefore, it can also be used for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used in a broad range of individual products you can use for quick, easy, secure, tailored electrical installation. The strip length is 35 mm.

WINSTA® MIDI solutions for your electrical installation – protected against mismating and maintenance-free

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with WINSTA® MIDI pluggable installation connectors with marking from WAGO.

- protection against mismating eliminates errors
- · simple circuits
- with A coding for a large number of applications
- · ready to install and use immediately
- rapid, structured electrical installation

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This item includes:



•

Item No.: 770-212

1

Item No.: 770-502/041-000

1

Plug; 2-pole; Cod. A; 4,00 mm²; black

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black

Electrical data			
Ratings per	IEC	C/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 m Ω of contact resistance approx. 0.25 m Ω contact transition plug/ socket

Actuation type Operating tool Push-in Nominal cross-section 4 mm² / 12 AWG Solid conductor 0.5 4 mm² / 12 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 Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter Conductor entry direction to mating direction	on data			
Actuation type 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 O.5 2.5 mm² / 20 14 AWG Fine-stranded conductor; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number Conductor entry direction to mating direction 0°	points	4	Connection 1	
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 Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction	tal number of potentials 2	2	Connection technology	Push-in CAGE CLAMP®
Solid conductor Solid conductor; push-in termination 1.5 4 mm² / 20 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 0.5 4 mm² / 20 12 AWG Fine-stranded conductor; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction		Actuation type		
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; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter Conductor entry direction to mating direction			Nominal cross-section	4 mm² / 12 AWG
Stranded conductor Fine-stranded conductor Fine-stranded conductor; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length Pole number Connectable sheathed cable diameter Conductor entry direction to mating direction			Solid conductor	0.5 4 mm² / 20 12 AWG
Fine-stranded conductor; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length Pole number Conductor entry direction to mating direction 0.25 2.5 mm² / 20 14 AWG 1.5 mm² / 16 AWG 9 mm / 0.35 inches 7 10.5 mm			Solid conductor; push-in termination	1.5 4 mm² / 16 12 AWG
Fine-stranded conductor; with insulated ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length Pole number Connectable sheathed cable diameter Conductor entry direction to mating direction 0.25 2.5 mm² / 20 14 AWG 1.5 mm² / 16 AWG 9 mm / 0.35 inches 2 Connectable sheathed cable diameter 7 10.5 mm			Stranded conductor	0.5 2.5 mm² / 20 14 AWG
ferrule Fine-stranded conductor; with uninsulated ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length Pole number Connectable sheathed cable diameter Conductor entry direction to mating direction 9.25 2.5 mm² / 20 14 AWG 1.5 mm² / 16 AWG 9 mm / 0.35 inches 2 Connectable diameter 7 10.5 mm			Fine-stranded conductor	0.5 4 mm² / 20 12 AWG
ted ferrule Fine-stranded conductor; with ferrule; push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction		•	0.25 1.5 mm² / 20 16 AWG	
push-in termination Strip length 9 mm / 0.35 inches Pole number 2 Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction			·	0.25 2.5 mm² / 20 14 AWG
Pole number 2 Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction				1.5 mm² / 16 AWG
Connectable sheathed cable diameter 7 10.5 mm Conductor entry direction to mating direction			Strip length	9 mm / 0.35 inches
Conductor entry direction to mating direction			Pole number	2
rection			Connectable sheathed cable diameter	7 10.5 mm
Strip length (outer insulation) 35 mm			0°	
out pronger (out or mountain)		Strip length (outer insulation)	35 mm	

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Physical data	
Pin spacing	10 mm / 0.394 inches
Width	24.6 mm / 0.969 inches
Height	15.9 mm / 0.626 inches
Depth	71 mm / 2.795 inches

Mechanical data	
Application	General mains applications
Coding	A
Variable coding	No
Marking	NL
Potential marking	NL
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).
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	1
Insulation material	Polyamide (PA66)
Flammability class per UL94	VO
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper or copper alloy; surface-treated
Contact plating	Tin
Fire load	0.405 MJ
Weight	12.9 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	
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	4050821117940
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	-	-

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

https://www.wago.com/770-112/041-000



Downloads

Environmental Product Compliance

Compliance Search **Environmental Product**

Compliance 770-112/041-000



Documentation

2000			
Bid Text			
770-112/041-000	19.02.2019	xml 3.02 KB	$\underline{\downarrow}$
770-112/041-000	08.06.2015	doc 23.50 KB	$\underline{\downarrow}$

CAD/CAE-Data

CAD data

2D/3D Models 770-112/041-000



WSCAD Universe 770-112/041-000

ZUKEN Portal 770-112/041-000

CAE data



1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly





Item No.: 771-8992/106-101 pre-assembled connecting cable; Eca;

Socket/open-ended; 2-pole; Cod. A; $H05VV-F \ 2 \ x \ 1.5 \ mm^2; \ 1 \ m; \ 1,50 \ mm^2;$

Item No.: 771-8992/006-101

pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution box



Item No.: 899-631/477-000

Distribution box; Single-phase current (230 V); 1 input; 11 outputs; Cod. A; MIDI;

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1.1.3 Distribution connector



Item No.: 770-1634

h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black

Item No.: 770-1636

h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black

Item No.: 770-1606

T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black

Item No.: 770-1615

T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

1.1.4 Female connector/socket





Item No.: 770-202 Socket; 2-pole; Cod. A; 4,00 mm²; black Socket; with strain relief hor

Socket; with strain relief housing; 2-pole; Cod. A; 4,00 mm²; black

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

1.3 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

1.3.2 Tool

1.3.2.1 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

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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).

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