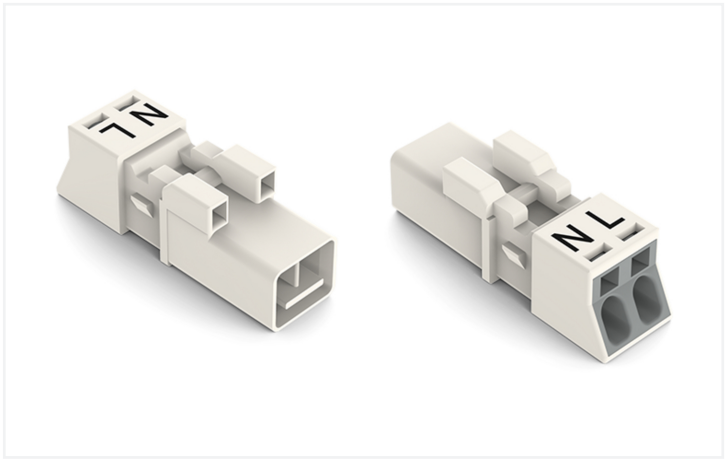
Data Sheet | Item Number: 890-232

Plug; 2-pole; 1,50 mm²; white

https://www.wago.com/890-232



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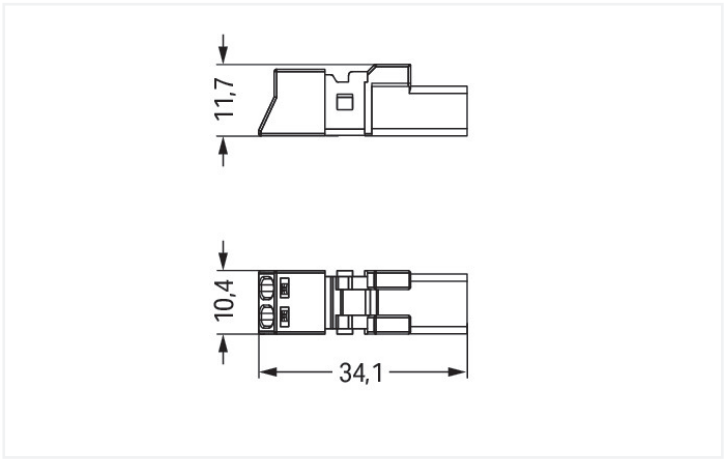


Dimensions in mm

Male connector/plug *WINSTA*® MINI rated current 16 A

The *WINSTA*® MINI male connector/plug with protection against mismating is the pluggable solution for your application in control cabinets, on PCBs or for lighting connections. The pluggable installation connectors with spring pressure connection technology function without screw connections. They allow flexible, error-free installation in numerous applications. The coding options reduce installation errors, allowing fast, secure wiring of all components. The *WINSTA*® MINI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. Due to its particularly minimal dimensions, our *WINSTA*® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is especially suitable in very tight spaces, i.e., for installations when very little room is available.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and thus more efficient, 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 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
- consistent IP40 protection
- with A coding for a large number of uses
- flexible installation to save space
- 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	16 A	-	-

Approvals per	UL 1977
Rated voltage	600 V
Rated current	14 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	2
Total number of potentials	2

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross-section	1.5 mm² / 16 AWG
Solid conductor	0.25 … 1.5 mm² / 22 … 16 AWG
Solid conductor; push-in termination	0.75 … 1.5 mm² / 20 … 16 AWG
Stranded conductor	0.25 … 1 mm² / 22 … 18 AWG
Fine-stranded conductor	0.25 … 1.5 mm² / 22 … 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 … 0.75 mm² / 22 … 20 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 … 0.75 mm² / 22 … 20 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.75 mm² / 20 AWG
Strip length	9 mm / 0.35 inches
Pole number	2
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	10.4 mm / 0.409 inches
Height	11.7 mm / 0.461 inches
Depth	34.1 mm / 1.343 inches

Mechanical data

Use	General mains applications
Coding	A
Variable coding	No
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; IP40 when mated with strain relief housing

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 (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	0.08 MJ
Weight	2.5 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)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143548496
Customs tariff number	85366990990

Product classification

UNSPSC	39121402
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 8.0	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	71-123231
CCA DEKRA Certification B.V.	IEC 61535	NL-85020
cURus Underwriters Laboratories Inc.	UL 1977	E45171

Declarations of conformity and manufacturer's declarations

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

Continued on next page

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	Steel Vessel Rules	19-HG1869855-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	08/20047 (E2)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-232

CAD/CAE-Data

CAD data

2D/3D Models 890-232

CAE data

EPLAN Data Portal 890-232

WSCAD Universe 890-232

ZUKEN Portal 890-232

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 891-8992/105-102
pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. A; H05VV-F 2 x 1.0 mm²; 1 m; 1,00 mm²; white

Item No.: 891-8992/005-102
pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. A; H05VV-F 2 x 1.0 mm²; 1 m; 1,00 mm²; white

1.1.2 Distribution connector

Item No.: 890-1684
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

Item No.: 890-1686
h-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white

Item No.: 890-1656
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

Item No.: 890-1665
T-distribution connector; 2-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white

1.1.3 Female connector/socket

Item No.: 890-722
Snap-in socket; 2-pole; Cod. A; 1,50 mm²; white

Item No.: 890-822/011-000
Socket for PCBs; angled; 2-pole; Cod. A; white

Item No.: 890-822
Socket for PCBs; straight; 2-pole; Cod. A; white

Item No.: 890-222
Socket; 2-pole; Cod. A; 1,50 mm²; white

Item No.: 890-122
Socket; with strain relief housing; 2-pole; Cod. A; 1,50 mm²; white

1.2 Required Accessories

1.2.1 Locking system

1.2.1.1 Locking system

Item No.: 890-111
Locking lever; for flying leads; for tool operation; black

Item No.: 890-131
Locking lever; for flying leads; for tool operation; white

Item No.: 890-101
Locking lever; for manual operation; black

Item No.: 890-121
Locking lever; for manual operation; white

1.2.2 Strain relief

1.2.2.1 Strain relief housing

Item No.: 890-502/342-000
Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 … 8.2 mm; 17.5 mm; black

Item No.: 890-512/342-000
Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 … 8.2 mm; 17.5 mm; white

Item No.: 890-502
Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 … 8.2 mm; 30 mm; black

Item No.: 890-512
Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 … 8.2 mm; 30 mm; white

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 Cover

Item No.: 897-2001
Protective cap; Type1; for sockets and plugs; PVC; red

1.3.2 Installation

1.3.2.1 Mounting accessories

Item No.: 890-310
Mounting carrier; 2- to 5-pole; for flying leads; black

Item No.: 890-311
Mounting carrier; 2- to 5-pole; for flying leads; white

Continued on next page

1.3.3 Tool

1.3.3.1 Operating tool

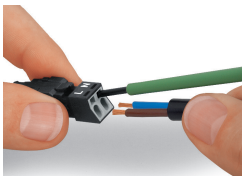
Item No.: 890-382
Operating tool; 2-way; green

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

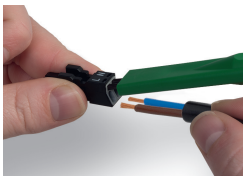
Installation Notes

Conductor termination

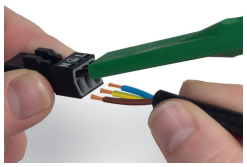
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.
Terminate solid conductors by simply pushing them in.

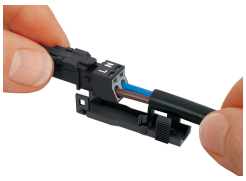


To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.
Terminate solid conductors by simply pushing them in.



To terminate fine-stranded conductors, open clamping units via operating tool (890-383) and insert stripped conductors until they hit backstop.
Terminate solid conductors by simply pushing them in.

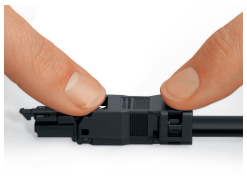
Installation



Latch the wired connector into the base of the strain relief housing.

Push down strain relief clamp by hand.

Push down strain relief clamp with 2.5 mm screwdriver alternately on both sides.



Latch the top of the strain relief housing.

The printed marking of the connector is clearly visible in the openings of the strain relief housing.