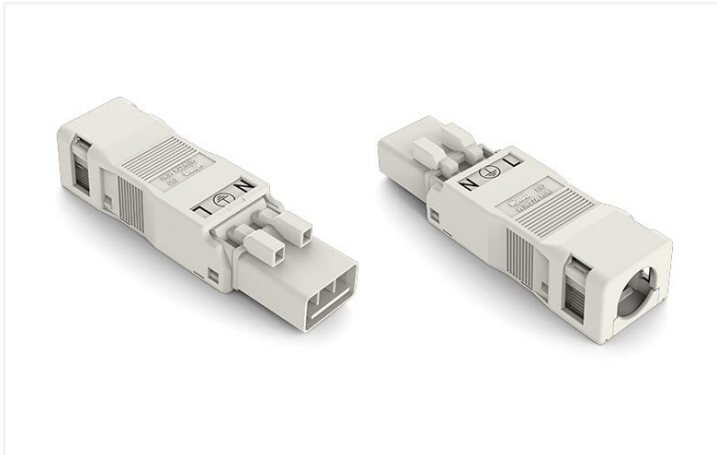



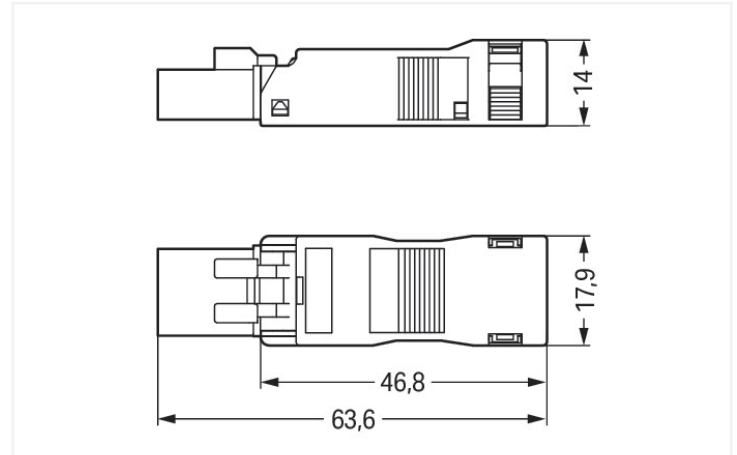
## Data Sheet | Item Number: 890-133

Plug; with strain relief housing; 3-pole; 1,50 mm<sup>2</sup>; white

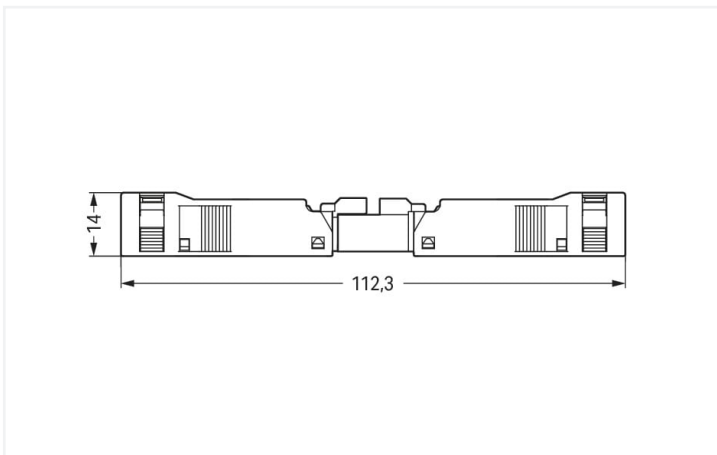
<https://www.wago.com/890-133>



Color:  white



Dimensions in mm



Dimensions in mm

Overall length when mated

### Male connector/plug WINSTA® MINI with protection type IP40

The WINSTA® MINI male connector/plug with protection type IP40 allows assembly of fine-stranded and solid conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to an enormous variety of requirements in next to no time. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. The pluggable installation connector is protected against ingress by solid granular objects with a diameter of less than 1 mm in accordance with protection type IP40. Standard mains applications for almost any domain of use can be implemented with WINSTA® MINI pluggable installation connectors with A coding. WINSTA® MINI satisfies the demand for miniaturisation. Our smallest pluggable connection system is especially suitable for lights, for example, since as a result of LED technology; due to complex systems, these offer less and less space for the connection technology. The strip length is 40 mm.

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

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. Choose quality and durability – the WINSTA® MINI pluggable installation connector with protection against mismatching from WAGO makes the electrical installation of electrical components significantly easier.

- pluggable installation connectors with protection against mismatching
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- with A coding for use in many general mains applications
- custom-engineered solutions
- convenient installation and commissioning



This item includes:



Item No.: 890-233	1	Item No.: 890-513	1
Plug; 3-pole; Cod. A; 1,50 mm <sup>2</sup> ; white		Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 ... 10.0 mm; 37 mm; white	

Electrical data

Ratings per IEC/EN	
Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	250 V
Rated impulse voltage (III/3)	4 kV
Rated current	16 A
Legend (ratings)	(III / 3) △ Overvoltage category III / Pollution degree 3

Ratings per UL 1977	
Note for the US market	Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 5 A and voltages up to 600 V. For further information, please contact your local sales office.
Rated voltage (UL 1977)	600 V
Rated current UL 1977	14 A

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

Connection data

Connection points	3
Total number of potentials	3
PE function	Preceding PE contact

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross-section	1.5 mm <sup>2</sup> / 16 AWG
Solid conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG
Solid conductor; push-in termination	0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG
Stranded conductor	0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG
Fine-stranded conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.75 mm <sup>2</sup> / 20 AWG
Strip length	9 mm / 0.35 inches
Pole number	3
Connectable sheathed cable diameter	4.5 ... 10 mm
Conductor entry direction to mating direction	0 °
Strip length (outer insulation)	40 mm

## Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	17.9 mm / 0.705 inches
Height	14 mm / 0.551 inches
Depth	63.6 mm / 2.504 inches

## Mechanical Data

Application	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	IP40

## 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	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)	<a href="#">Information on material specifications can be found here</a>
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	0.284 MJ
Weight	6.6 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)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454233013
Customs tariff number	85366990990

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

Approvals for marine applications



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

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 890-133	<a href="#">↓</a>

Documentation

Bid Text			
890-133	19.02.2019	xml 3.03 KB	<a href="#">↓</a>
890-133	08.06.2015	doc 23.00 KB	<a href="#">↓</a>

CAD/CAE-Data




CAD data	CAE data
2D/3D Models 890-133	EPLAN Data Portal 890-133
	WSCAD Universe 890-133
	ZUKEN Portal 890-133


1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly




**Item No.: 891-8993/105-102**  
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; white




**Item No.: 891-8993/005-102**  
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; white


1.1.2 Distribution connector




**Item No.: 890-684**  
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white



**Item No.: 890-686**  
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white




**Item No.: 890-656**  
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white




**Item No.: 890-665**  
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white


1.1.3 Female connector/socket




**Item No.: 890-723**  
Snap-in socket; 3-pole; Cod. A; 1,50 mm²; white




**Item No.: 890-823/011-000**  
Socket for PCBs; angled; 3-pole; Cod. A; white



**Item No.: 890-823**  
Socket for PCBs; straight; 3-pole; Cod. A; white



**Item No.: 890-223**  
Socket; 3-pole; Cod. A; 1,50 mm²; white




**Item No.: 890-123**  
Socket; with strain relief housing; 3-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

1.3 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

1.3.3 Shield termination

1.3.3.1 Shield termination



**Item No.: 890-523**  
Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

1.3.4 Tool

1.3.4.1 Operating tool



**Item No.: 890-383**  
Operating tool; 3-way; green



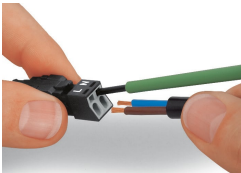
**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

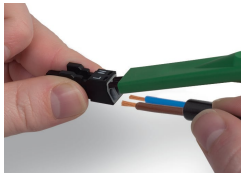
Conductor termination



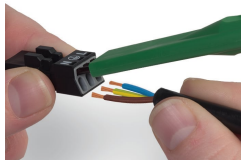
- 1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm



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.

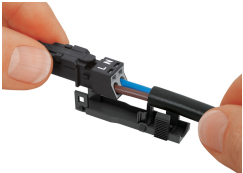


To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop. Terminate solid conductors by simply pushing them in.



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.

Shield termination



Connector with shield termination



Apply the shield to the sheathed cable.  
Strip length, outer insulation = 30 mm  
Shield length = 8 mm



Push the shield connecting plate into the connector until fully inserted.



First insert the wired connector into strain relief housing, then snap clamp and cover.