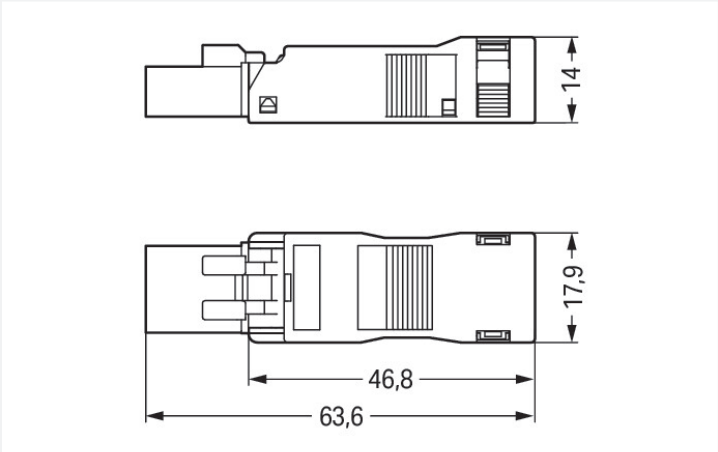
Data Sheet | Item Number: 890-113

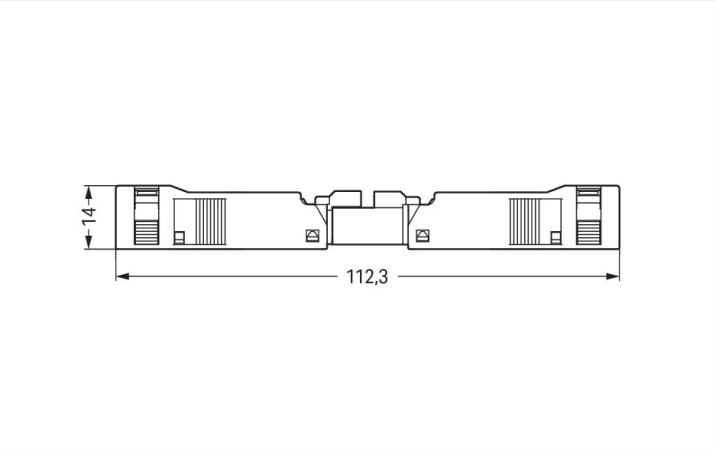
Plug; with strain relief housing; 3-pole; 1,50 mm²; black

https://www.wago.com/890-113



Color: ■ black

Dimensions in mm



Dimensions in mm
Overall length when mated

Male connector/plug *WINSTA*® MINI A coding

The *WINSTA*® MINI male connector/plug 3-pole allows assembly of solid and fine-stranded conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make connections according to various requirements in next to no time. 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 granular objects with a diameter below 1 mm in accordance with protection type IP40. Thanks to the color coding and mechanical A coding of *WINSTA*® MINI pluggable installation connectors, you can clearly distinguish different circuits. *WINSTA*® MINI is our response to the trend toward miniaturisation. Our smallest pluggable connection system is especially suitable for lights, for instance, since due to LED technology, these offer much less space for the connection technology. The strip length is 40 mm.

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

The WINSTA® Pluggable Connection System is ideally tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and thus more efficient, even more reliable, and error-free. Use of this pre-assembled system reduces assembly times and errors during installation at the construction site. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismating from WAGO.

- protection against mismating eliminates errors
- consistent IP40 protection
- with A coding for a large number of uses

 Continued on next page

- custom-engineered solutions
- convenient installation and commissioning

This item includes:

Item No.: 890-213	1
Plug; 3-pole; Cod. A; 1,50 mm²; black	

Item No.: 890-503	1
Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 … 10.0 mm; 37 mm; black	

Notes

General safety information	1. Only to be used by a qualified electrician or by a person electrically instructed for the task (EIP per DIN VDE 0105-100). 2. Do not install while energized or under load. 3. Use only for its intended purpose. 4. Observe applicable national regulations, standards and directives. 5. Observe the technical specifications of the products. 6. Ensure correct polarity assignment. 7. Do not use damaged or contaminated components. 8. Observe conductor types, conductor cross-sections, strip lengths and cable diameters. 9. Insert conductors up to the stop. 10. Use only with locking lever and strain relief. 11. Use original accessories only. **To be sold only with installation instructions!**

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	-	-
Rated impulse withstand 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	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 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	3
Connectable sheathed cable diameter	4.5 … 10 mm

 Continued on next page

Connection 1

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

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	IP40

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	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	0.175 MJ
Connector color	black
Strain relief color	black
Weight	8.5 g

 Continued on next page

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	DE
GTIN	4045454232900
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 10.0	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

Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	Steel Vessel Rules	24-0095973-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	LR23317167TA
PRS Polski Rejestr Statków	-	TE/1096/880590/23

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	-	-

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Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 890-113

Documentation

Bid Text			
890-113	19.02.2019	xml 3.03 KB	
890-113	08.06.2015	doc 23.00 KB	

CAD/CAE-Data

CAD data
2D/3D Models 890-113

CAE data
EPLAN Data Portal 890-113
WSCAD Universe 890-113
ZUKEN Portal 890-113

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 891-8993/105-101
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; black

Item No.: 891-8993/005-101
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; black

1.1.2 Distribution connector

Item No.: 890-634
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black

Item No.: 890-636
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black

Item No.: 890-606
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black

Item No.: 890-615
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

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1.1.3 Female connector/socket

Item No.: 890-703
Snap-in socket; 3-pole; Cod. A; 1,50 mm²; black

Item No.: 890-803/011-000
Socket for PCBs; angled; 3-pole; Cod. A; black

Item No.: 890-803
Socket for PCBs; straight; 3-pole; Cod. A; black

Item No.: 890-203
Socket; 3-pole; Cod. A; 1,50 mm²; black

Item No.: 890-103
Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black

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

 Continued on next page

1.3.4 Tool

1.3.4.1 Operating tool

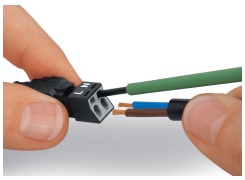
Item No.: 890-383
Operating tool; 3-way; green

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

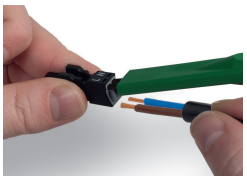
Installation Notes

Conductor termination

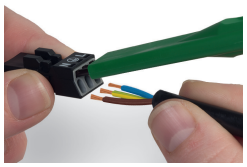
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

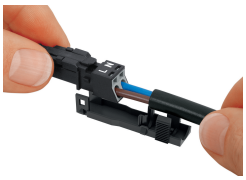


To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.
Terminate solid conductors by simply pushing them in.



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.