

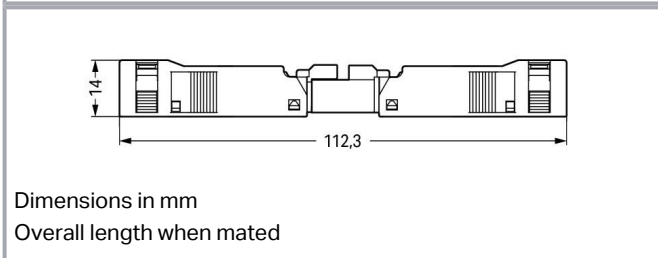
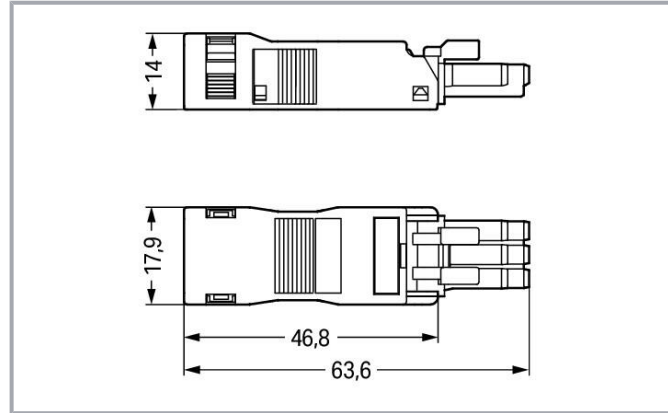
Data sheet | Item number: 890-103

Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black

www.wago.com/890-103



Color: ■



Dimensions in mm

Overall length when mated

Item description

Female connector/socket WINSTA® MINI with protection type IP40

For power and signal transmission: The WINSTA® MINI female connector/socket with protection type IP40. Our pluggable installation connectors with spring pressure connection technology function without screw connections. They allow resource-efficient, error-free installation in a large number of applications. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. The pluggable installation connector is protected in accordance with protection type IP40. Users' fingers and tools will never come into contact with live elements. Thanks to the color coding and mechanical A coding of WINSTA® MINI pluggable installation connectors, you can clearly distinguish different circuits. Thanks to its particularly small dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is very suitable in very restricted spaces, i.e., for connections when very little room is available. The strip length is 40 mm.

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

WAGO GmbH & Co. KG

Hansastr. 27

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Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.



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

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Choose quality and durability – the WINSTA® MINI pluggable installation connector with marking from WAGO makes the installation of electrical components substantially easier.

- effective protection against mismatching
- compact design for conductors with a cross-section up to 1.5 mm²
- with A coding for use in a large number of general mains applications
- custom-engineered solutions
- convenient installation and commissioning

Data

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



Connection data

Connection points	3
Total number of potentials	3

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross-section	1.5 mm ² / 16 AWG
Solid conductor	0.25 ... 1.5 mm ² / 22 ... 16 AWG
Solid conductor; push-in termination	0.75 ... 1.5 mm ² / 20 ... 16 AWG
Stranded conductor	0.25 ... 1 mm ² / 22 ... 18 AWG
Fine-stranded conductor	0.25 ... 1.5 mm ² / 22 ... 16 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.75 mm ² / 22 ... 20 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.75 mm ² / 22 ... 20 AWG
Fine-stranded conductor; with ferrule; push-in termination	0.75 mm ² / 20 AWG
Strip length	9 mm / 0.35 inches
Pole number	3
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	L $\frac{1}{3}$ N
Potential marking	L $\frac{1}{3}$ N
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

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



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)	Female connector/socket
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)	Information on material specifications can be found here
Color	black
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	7.2 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



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	4045454232856
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 61535	NL-85020
	CCA DEKRA Certification B.V.	EN 61535	71- 123231
	cURus Underwriters Laboratories Inc.	UL 1977	E45171

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
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EU-Declaration of Conformity
WAGO GmbH & Co. KG

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UK-Declaration of Conformity
WAGO GmbH & Co. KG






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Approvals for marine applications

Logo	Approval	Additional Approval Text	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)


Counterpart

	Item no.890-113 Plug; with strain relief housing; 3-pole; 1,50 mm ² ; black	www.wago.com/890-113
	Item no.890-213 Plug; 3-pole; Cod. A; 1,50 mm ² ; black	www.wago.com/890-213
	Item no.890-606 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/890-606
	Item no.890-615 T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	www.wago.com/890-615
	Item no.890-634 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black	www.wago.com/890-634
	Item no.890-636	

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 h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black www.wago.com/890-636

 **Item no.890-713**
Snap-in plug; 3-pole; Cod. A; 1,50 mm²; black www.wago.com/890-713

 **Item no.890-813**
Plug for PCBs; straight; 3-pole; Cod. A; black www.wago.com/890-813

 **Item no.890-813/011-000**
Plug for PCBs; angled; 3-pole; Cod. A; black www.wago.com/890-813/011-000

 **Item no.891-8993/005-101**
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; black www.wago.com/891-8993/005-101

 **Item no.891-8993/205-101**
pre-assembled connecting cable; Eca; Plug/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; black www.wago.com/891-8993/205-101

Required accessories


Locking levers

Locking system

 **Item no.: 890-111**
Locking lever; for flying leads; for tool operation; black www.wago.com/890-111

 **Item no.: 890-101**
Locking lever; for manual operation; black www.wago.com/890-101

 **Item no.: 890-121**
Locking lever; for manual operation; white www.wago.com/890-121

 **Item no.: 890-131**
Locking lever; for flying leads; for tool operation; white www.wago.com/890-131

Optional accessories

Cover

Cover

 **Item no.: 897-2001**
Protective cap; Type1; for sockets and plugs; PVC; red www.wago.com/897-2001

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

Tool

Operating tool



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

www.wago.com/210-719



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

www.wago.com/890-383

Mounting

Mounting accessories



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

www.wago.com/890-310



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

www.wago.com/890-311

Shield termination

Shield termination



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

www.wago.com/890-523

Downloads

Documentation

Bid Text

890-103 X81 - Datei	2019 Feb 19	xml 3.1 kB	Download
890-103 doc - Datei	2015 Jun 8	doc 23.6 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 890-103	URL	Download
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CAE data

EPLAN Data Portal 890-103	URL	Download
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WSCAD Universe 890-103

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ZUKEN Portal 890-103

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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-103

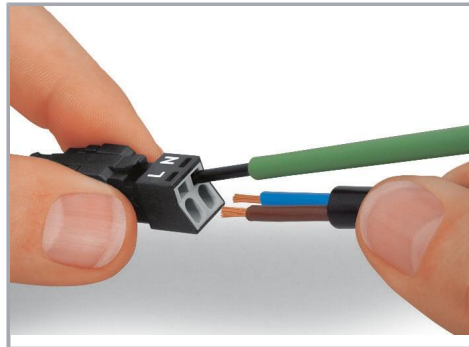
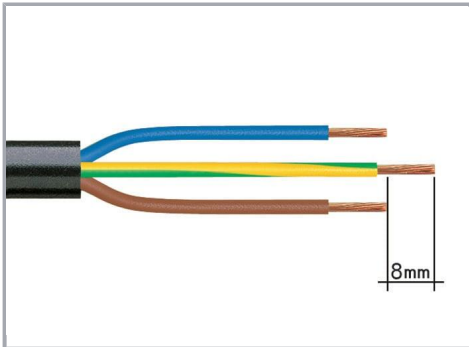
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Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black

Installation Notes

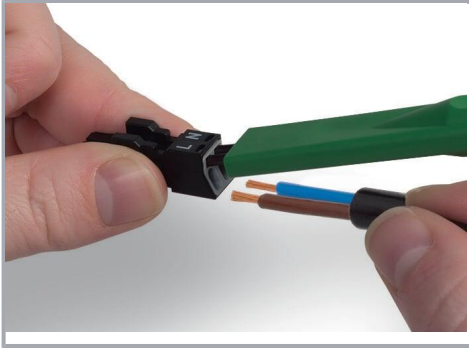
Conductor termination



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

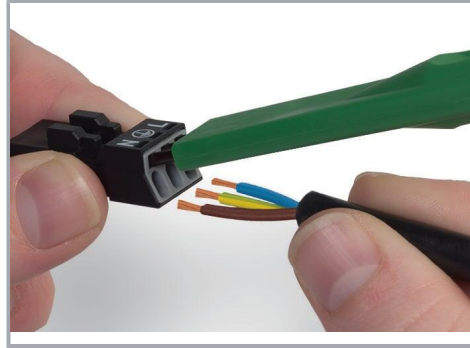
To terminate fine-stranded conductors, open the clamping unit via screwdriver – 2.5 mm blade width – and insert a stripped conductor until it hits the backstop. Terminate solid conductors by simply pushing them in.

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



To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.

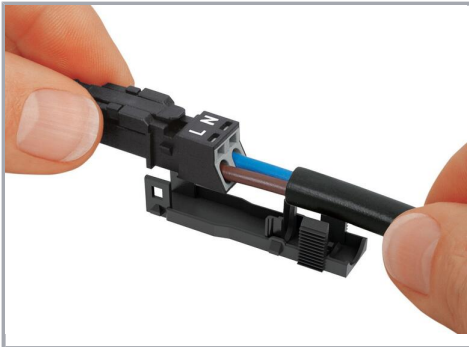
Terminate solid conductors by simply pushing them in.



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.

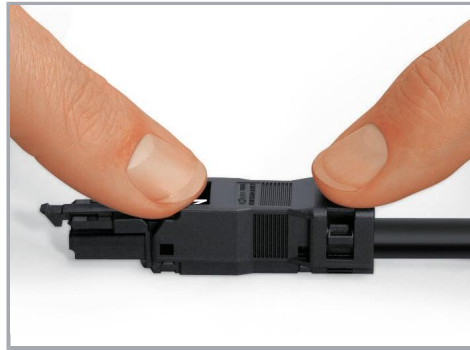


Push down strain relief clamp by hand.

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



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

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



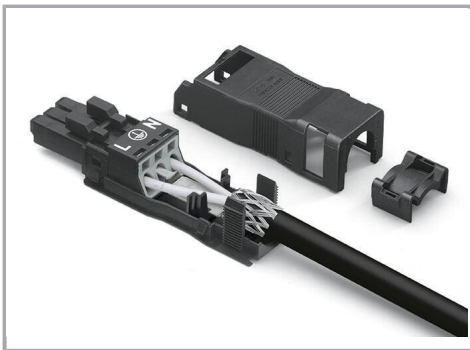
Apply the shield to the sheathed cable.

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.

Product family

WINSTA® MINI

[Show all products from the family](#)

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