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

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Color	

 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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Dimensions in mm
Overall length when mated

#### Item description

#### Male connector/plug WINSTA® MINI A coding

The WINSTA® MINI male connector/plug A coding allows installation of solid and fine-stranded conductors. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to an enormous variety of requirements in next to no time. For greater security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismating. 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. General mains applications for almost any domain of use can be realised with WINSTA® MINI pluggable installation connectors with A coding. Thanks to its particularly minimal dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is specifically suitable in very restricted spaces, i.e., for connections when very

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little room is available. A range up to 40 mm can be used for the strip length.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and consequently more efficient, even more reliable, and error-free. Using this pre-assembled system reduces assembly times and errors during installation at the construction site. Choose quality and durability – the WINSTA® MINI pluggable installation connector with marking from WAGO makes the electrical installation of electrical components noticeably easier.

- protection against mismating eliminates errors
- easy tool-free operation, a wide range of coding options
- for any mains application
- ready for immediate use
- 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)

#### 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 information**

Note on contact resistance approx. 1 m $\Omega$  of contact resistance

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#### approx. 0.25 m $\Omega$ 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 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
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

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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	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	0.23 MJ
Weight	8.5 g

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# **Environmental requirements**

Processing temperature	-5 +40 °C
Continuous operating temperature	-35 +85 ℃
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	4045454232900
Customs tariff number	85366990990

# **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

# Approvals / Certificates

#### General approvals

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

#### Declarations of conformity and manufacturer's declarations

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

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#### Approvals for marine applications

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

# Counterpart

Item no.890-103	www.waga.gom/900_102
Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm²; black	www.wago.com/890-103
Item no.890-203	WWW.Waga aam/800 202
Socket; 3-pole; Cod. A; 1,50 mm <sup>2</sup> ; black	www.wago.com/890-203
Item no.890-615	www.wago.com/890-615
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black	www.wago.com/690-013
Item no.890-606	www.wogo.com/900.606
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black	www.wago.com/890-606
Item no.890-634	
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers;	www.wago.com/890-634
black	
Item no.890-636	
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for	www.wago.com/890-636
flying leads; black	
Item no.890-703	www.wago.com/890-703
Snap-in socket; 3-pole; Cod. A; 1,50 mm²; black	www.wago.com/890-703
Item no.890-803	
Socket for PCBs; straight; 3-pole; Cod. A; black	www.wago.com/890-803
Item no.890-803/011-000	www.wago.com/890-803/011-
Socket for PCBs; angled; 3-pole; Cod. A; black	000
Item no.891-8993/005-101	www.wago.com/891-8993
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; black	/005-101
Item no.891-8993/105-101	www.wago.com/891-8993
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; black	/105-101

# Required accessories

# Locking levers

Locking system

Item no.: 890-111

Locking lever; for flying leads; for tool operation; black

www.wago.com/890-111

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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

Tool		
Operation	ng 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	WWW.Waga aam/900 292
	Operating tool; 3-way; green	www.wago.com/890-383
Cover		
Cover		
	Item no.: 897-2001	www.waga.com/907_2001
	Protective cap; Type1; for sockets and plugs; PVC; red	www.wago.com/897-2001
Shield ter	rmination	
Shield to	ermination	
	Item no.: 890-523	www.wogo.com/900.F22
	Shield connecting plate; 3-pole; for sockets and plugs; silver-colored	www.wago.com/890-523
Mounting	l	
Mountin	ng accessories	
	Item no.: 890-310	
	Mounting carrier; 2- to 5-pole; for flying leads; black	www.wago.com/890-310
	Item no.: 890-311	1000 044
	Mounting carrier; 2- to 5-pole; for flying leads; white	www.wago.com/890-311

# Downloads Documentation

#### **Bid Text**

2019 年2月19日	xml 3.1 kB	Download
2015 年6月8日	doc 23.6 kB	Download
		3.1 kB 2015 年6月8日 doc

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#### CAD/CAE-Data

CAD	data

2D/3D Models 890-113	URL	Download
CAE data		
EPLAN Data Portal 890-113	URL	Download
ZUKEN Portal 890-113	URL	Download
WSCAD Universe 890-113	URL	Download

# **Environmental Product Compliance**

Compliance Search

Environmental Product Compliance 890-113 URL Download Plug; with strain relief housing; 3-pole; 1,50 mm²; black

#### Installation Notes

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- 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.

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To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.	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.	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.
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# Data sheet | Item number: 890-113 www.wago.com/890-113



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

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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.

#### **Product family**

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WINSTA® MINI

Show all products from the family

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