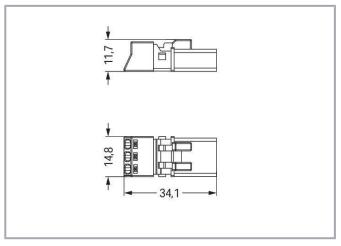
Plug; 3-pole; Cod. A; 1,50 mm<sup>2</sup>; white

www.wago.com/890-233







### Item description

### Male connector/plug WINSTA® MINI with protection against mismating

For power and signal transmission: The WINSTA® MINI male connector/plug with protection against mismating. WAGO pluggable installation connectors can be used when criteria repeat or are distributed on a defined grid, for example for installing grid lighting or flush-mount lighting. The coding options reduce installation errors, allowing fast, secure wiring of all components. Thanks to the color coding and mechanical A coding of WINSTA® MINI pluggable installation connectors, you can clearly distinguish different circuits. Due to its particularly compact dimensions, our WINSTA® MINI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology is specifically suitable in very tight spaces, i.e., for connections 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 allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with *WINSTA®* MINI pluggable installation connectors with protection against mismating from WAGO.

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

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- protection against mismating eliminates errors
- easy tool-free operation, a wide range of coding options
- with A coding for use in many general mains applications
- ready to install and use immediately
- 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 $m\Omega$ of contact resistance
	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®

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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°

# Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	15 mm / 0.591 inches
Height	11.7 mm / 0.461 inches
Depth	34.1 mm / 1.343 inches

# **Mechanical Data**

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	N <del>↓</del> 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 <i>WINSTA</i> ® components are 100% protected against mismating

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	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).

# **Material Data**

Note (material data)

Information on material specifications can be found here

Color	white
Cover color	gray
Material group	1
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	0.093 MJ
Weight	3.6 g

# **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

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PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4055143548540
Customs tariff number	85366990990
Environmental Product Compliance	
RoHS Compliance Status	Compliant.No Exemption

# Approvals / Certificates

# General approvals

		A 1 800 1 A 1 T	Certificate
Logo	Approval	Additional Approval Text	name
	CCA	IEC 61535	NL-85020
	DEKRA Certification B.V.		
	CCA	EN 61535	71-
KEMA	DEKRA Certification B.V.		123231
	cURus	UL 1977	E45171
<b>, 51</b> 1	Underwriters Laboratories Inc.		



# Declarations of conformity and manufacturer's declarations

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

# Approvals for marine applications

			Certificate
Logo	Approval	Additional Approval Text	name
	ABS	Steel Vessel Rules	19-
	American Bureau of Shipping		HG1869855-
			PDA

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**DNV GL** 

Det Norske Veritas, Germanischer Lloyd

TAE00001Z6



LR

Lloyds Register

EN 61535

08/20047

(E2)

# Counterpart



Item no.890-123

Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm<sup>2</sup>; white

www.wago.com/890-123



Item no.890-223

Socket; 3-pole; Cod. A; 1,50 mm2; white

www.wago.com/890-223



Item no.890-656

T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

www.wago.com/890-656



Item no.890-665

T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white

www.wago.com/890-665



Item no.890-686

h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for www.wago.com/890-686 flying leads; white



Item no.890-684

h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

www.wago.com/890-684



Item no.890-723

Snap-in socket; 3-pole; Cod. A; 1,50 mm<sup>2</sup>; white

www.wago.com/890-723

Item no.890-823

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	Socket for PCBs; straight; 3-pole; Cod. A; white	www.wago.com/890-823
mon.	Item no.890-823/011-000	www.wago.com/890-823/011-
3	Socket for PCBs; angled; 3-pole; Cod. A; white	000
40 13	Item no.891-8993/005-102	www.wago.com/891-8993
	pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; white	/005-102
*( t) ====	Item no.891-8993/105-102	www.wago.com/891-8993
	pre-assembled connecting cable: Fca: Socket/open-ended: 3-pole: Cod. A: 1 m: 1.00 mm <sup>2</sup> : white	/105-102

### Required accessories

trair	

Strain relief housing



Item no.: 890-513

Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 ... 10.0 mm; 37 mm; white

www.wago.com/890-513



Item no.: 890-503

Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 ... 10.0 mm; 37 mm; black

www.wago.com/890-503

# 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

# Mounting

Mounting accessories



Item no.: 890-310

Mounting carrier; 2- to 5-pole; for flying leads; black

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Item no.: 890-311

Mounting carrier; 2- to 5-pole; for flying leads; white

www.wago.com/890-311

Shie	ld ·	termi	nation

Shield termination



Item no.: 890-523

Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

www.wago.com/890-523

Cover

Cover



Item no.: 897-2001

Protective cap; Type1; for sockets and plugs; PVC; red

www.wago.com/897-2001

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

# Downloads

### **Documentation**

### **Bid Text**

890-233 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
890-233 doc - Datei	2015 Jun 8	doc 24.1 kB	Download

### CAD/CAE-Data

#### **CAD** data

2D/3D Models 890-233 URL Download

CAE data

EPLAN Data Portal 890-233

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	URL	Download
WSCAD Universe 890-233	URL	Download
ZUKEN Portal 890-233	URL	Download

# **Environmental Product Compliance**

### Compliance Search

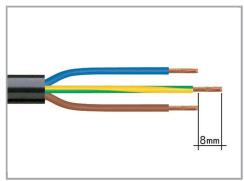
Environmental Product Compliance 890-233 Plug; 3-pole; Cod. A; 1,50 mm²; white

URL

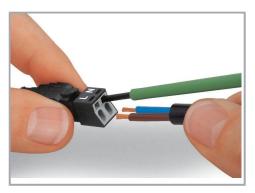
Download

#### **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.

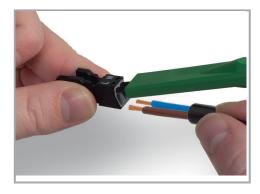
 $\label{thm:condition} \textbf{Subject to changes. Please also observe the further product documentation!}$ 

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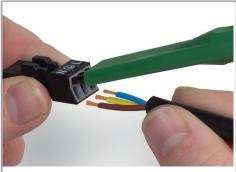
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To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.

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.

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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

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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!