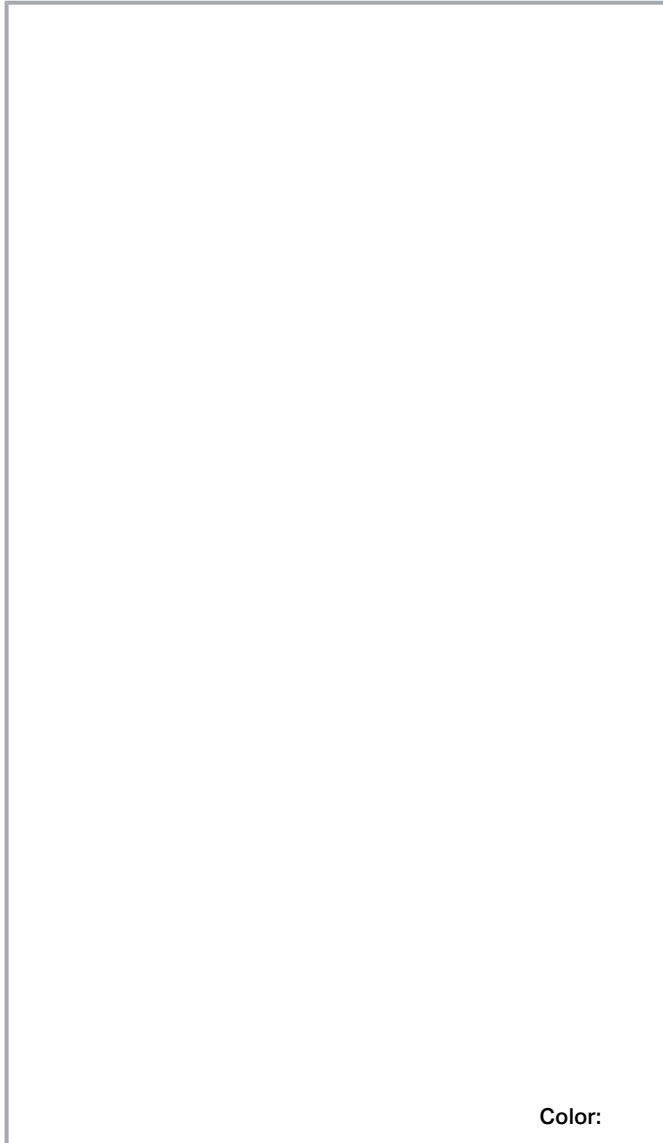


**Data sheet | Item number: 890-813**

Plug for PCBs; straight; 3-pole; Cod. A; black

[www.wago.com/890-813](http://www.wago.com/890-813)



**Color:**

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

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## Item description

### Male connector/plug *WINSTA*® MINI 3-pole

WAGO has various connection solutions for any challenge in building installation, for example, the *WINSTA*® MINI male connector/plug. Our extensive selection of pluggable PCB connectors with different insertion directions and operating variants offers you the perfect solution for your application at any time. For greater protection in electrical installations, the pcb connector is equipped with mechanical protection against mismatching. Thanks to the color coding and mechanical A coding of *WINSTA*® MINI pcb connectors, you can clearly distinguish different circuits. Especially where space is tight, our smallest pluggable connection system, *WINSTA*® MINI, conveniently displays its advantageous properties. It saves space, and, with Push-in CAGE CLAMP® spring pressure connection technology, it additionally can be installed quickly, since the connection is low-maintenance and requires no screw connections.

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

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## 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 saves time, lowers costs, and reduces the need for servicing. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with WINSTA® MINI pcb connectors with protection against mismatching from WAGO.

- protection against mismatching eliminates errors
- consistent IP40 protection
- with A coding for a large number of applications
- 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 information

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket
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#### Connection data

Total number of potentials	3
----------------------------	---

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



Number of levels	1
PE function	Preceding PE contact

### Connection 1

Pole number	3
-------------	---

### Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	14.8 mm / 0.583 inches
Height	31.9 mm / 1.256 inches
Height from the surface	28.4 mm / 1.118 inches
Depth	12.2 mm / 0.48 inches
Solder pin length	3.5 mm
Solder pin dimensions	1 x 0.8 mm
Drilled hole diameter with tolerance	1.3 <sup>(+0.1)</sup> mm

### Mechanical Data

Application	General mains applications
Coding	A
Variable coding	No
Marking	N $\perp$ L
Potential marking	N $\perp$ 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
Design	straight

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
Connector (connection type)	for PCB
Mismating protection	Yes
Note on mismating protection	All <i>WINSTA</i> <sup>®</sup> components are 100% protected against mismating when: a.) plugging different numbers of poles b.) plugging while rotated 180

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



	c.) plugging while laterally staggered d.) plugging one pole
Mating direction to the PCB	90 °
Locking lever	yes
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).

### PCB contact

PCB contact	THT
Solder pin arrangement	2 in-line solder pins/pole
Number of solder pins per potential	2

### 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	0.064 MJ
Weight	3.2 g

### Environmental requirements

Processing temperature	-5 ... +40 °C
Continuous operating temperature	-35 ... +85 °C
Note on continuous operating temperature	Insulating parts for temperatures $\leq$ 105 °C

### Commercial data

Product Group	20 (Winsta)
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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)	100 pcs
Packaging type	box
Country of origin	PL
GTIN	4050821695509
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
	<b>CCA</b> DEKRA Certification B.V.	EN 61535	71-123231
	<b>CCA</b> 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	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

#### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	Steel Vessel Rules	19-HG1869855-PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	<b>LR</b>	EN 61535	08/20047

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## Counterpart

<b>Item no.890-103</b> Socket; with strain relief housing; 3-pole; Cod. A; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/890-103">www.wago.com/890-103</a>
<b>Item no.890-203</b> Socket; 3-pole; Cod. A; 1,50 mm <sup>2</sup> ; black	<a href="http://www.wago.com/890-203">www.wago.com/890-203</a>
<b>Item no.891-8993/005-101</b> pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/891-8993/005-101">www.wago.com/891-8993/005-101</a>
<b>Item no.891-8993/105-101</b> pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm <sup>2</sup> ; black	<a href="http://www.wago.com/891-8993/105-101">www.wago.com/891-8993/105-101</a>

## Downloads

### CAD/CAE-Data

#### PCB Design

Symbol and Footprint 890-813

URL

Download

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

#### Supported formats:

- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!

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- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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#### CAE data

ZUKEN Portal 890-813	URL	Download
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#### CAD data

2D/3D Models 890-813	URL	Download
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### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 890-813 Plug for PCBs; straight; 3-pole; Cod. A; black	URL	Download
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### Installation Notes

#### Product family

**WINSTA® MINI**

[Show all products from the family](#)

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