

Item description

Male connector/plug *WINSTA*® MINI with protection type IP20

For signal and power transmission: The *WINSTA*® MINI male connector/plug with protection type IP20. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to a huge variety of requirements in next to no time. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. Solutions like the *WINSTA*® MINI pluggable installation connectors with B coding are appropriate for process control, such as for lighting or in data networks. Where space is tight, our smallest pluggable connection system, *WINSTA*® MINI, conveniently displays its strengths. It is very compact, and, with Push-in CAGE CLAMP® spring pressure connection technology, it also can be installed quickly, since the connection is low-maintenance and requires no screw connections.

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

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It allows error-free installation of cables and components, quickly and reliably. Choose quality and durability – with marking from WAGO makes the installation of electrical components substantially easier.

-
- protection against mismatching eliminates errors
- consistent IP40 protection

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



- with B coding for use in automation of processes, such as lighting technology, for instance
- custom-engineered solutions
- fast, secure installation

Data

Notes

Variants:

Other pole markings

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Electrical data

Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	400 V
Rated impulse voltage (III/3)	6 kV
Rated current	16 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Ratings per IEC/EN – Notes

Note (rated current)

13 A for 3-pole load

10 A for 4- and 5-pole load

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	12 A

General information

Note on contact resistance

approx. 1 mΩ of contact resistance

approx. 0.25 mΩ contact transition plug/socket

Connection data

Connection points

5

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

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: info.de@wago.com | Web: www.wago.com

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Total number of potentials	5
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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	5
Conductor entry direction to mating direction	0°

Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	23.6 mm / 0.929 inches
Height	11.7 mm / 0.461 inches
Depth	34.1 mm / 1.343 inches

Mechanical Data

Application	Control technology
Coding	B
Variable coding	No
Marking	5 4 3 2 1
Potential marking	5 4 3 2 1
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

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



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 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	gray
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	0.141 MJ
Weight	5.6 g

Environmental requirements

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

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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
ECCN	NO DATA
PU (SPU)	50 pcs
Packaging type	box
Country of origin	PL
GTIN	4055143499736
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
	CB DEKRA Certification B.V.	EN 61984	NL-64351
	CB DEKRA Certification B.V.	EN 61984	71-112993
	cURus Underwriters Laboratories Inc.	UL 1977	E45171
	KEMA/KEUR DEKRA Certification B.V.	EN 60320	2148952.04

Declarations of conformity and manufacturer's declarations

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

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UK-Declaration of Conformity
WAGO GmbH & Co. KG

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	LR Lloyds Register	EN 61535	08/20047 (E2)

Counterpart

	Item no.890-245 Socket; 5-pole; Cod. B; 1,50 mm ² ; gray	www.wago.com/890-245
	Item no.890-745 Snap-in socket; 5-pole; Cod. B; 1,50 mm ² ; gray	www.wago.com/890-745
	Item no.891-8995/005-103 pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. B; (H)05VV-F 5x1,0 mm ² ; 1 m; 1,00 mm ² ; gray	www.wago.com/891-8995/005-103
	Item no.890-845/011-000 Socket for PCBs; angled; 5-pole; Cod. B; gray	www.wago.com/890-845/011-000
	Item no.890-845 Socket for PCBs; straight; 5-pole; Cod. B; gray	www.wago.com/890-845
	Item no.891-8995/105-103 pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. B; (H)05VV-F 5x1,0 mm ² ; 1 m; 1,00 mm ² ; gray	www.wago.com/891-8995/105-103

Required accessories

Strain relief

Strain relief housing

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

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Item no.: 890-505

Strain relief housing; 5-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black

www.wago.com/890-505



Item no.: 890-515

Strain relief housing; 5-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; white

www.wago.com/890-515

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

www.wago.com/890-310



Item no.: 890-311

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

www.wago.com/890-311

Cover

Cover



Item no.: 897-2003

Protective cap; Type2; for sockets and plugs; PVC; red

www.wago.com/897-2003

Tool

Operating tool

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

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Item no.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft



Item no.: 890-385

Operating tool; 5-way; green

Downloads

Documentation

Bid Text

890-255 X81 - Datei	2019 Feb 19	xml 3.0 kB	Download
890-255 doc - Datei	2015 Jun 8	doc 24.1 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 890-255	URL	Download
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CAE data

ZUKEN Portal 890-255	URL	Download
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Asset Administration Shell

Asset Administration Shell 890-255	URL	Download
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Environmental Product Compliance

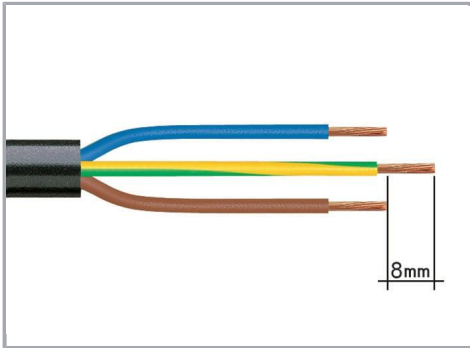
Compliance Search

Environmental Product Compliance 890-255 Plug; 5-pole; Cod. B; 1,50 mm ² ; gray	URL	Download
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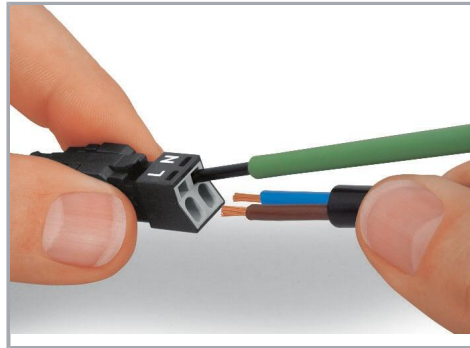
Installation Notes

Conductor termination

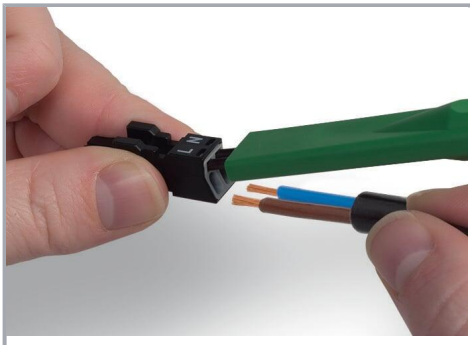
Subject to changes. Please also observe the further product documentation!



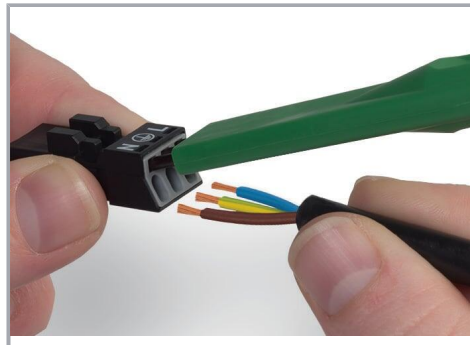
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.



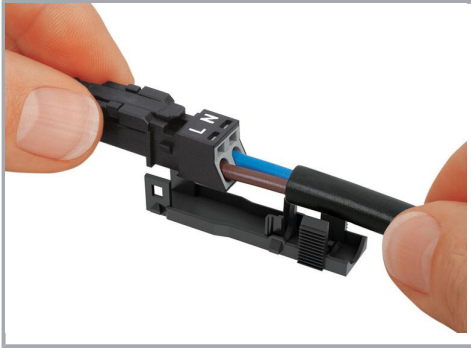
To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop. Terminate solid conductors by simply pushing them in.



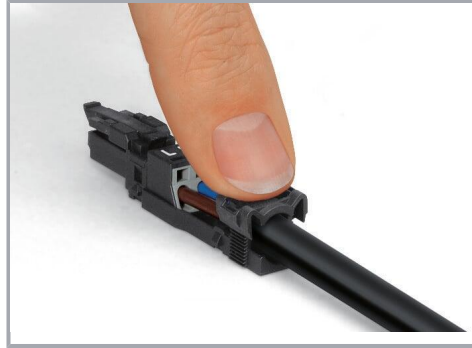
To terminate fine-stranded conductors, open clamping units via operating tool (890-383) and insert stripped conductors until they hit backstop. Terminate solid conductors by simply pushing them in.

Installation

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



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.



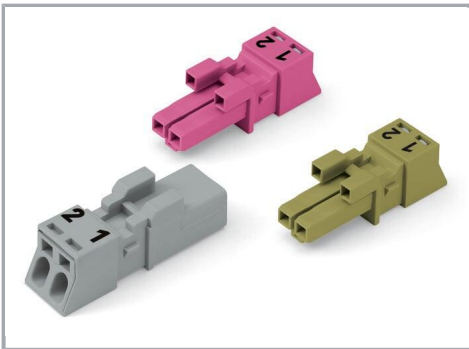
Latch the top of the strain relief housing.

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

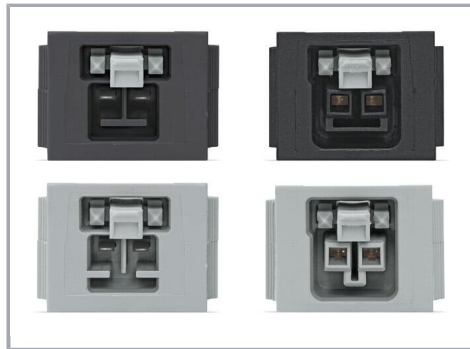


The printed marking of the connector is clearly visible in the openings of the strain relief housing.

Mismatching protection



B-coded connectors with different colors can be plugged together.

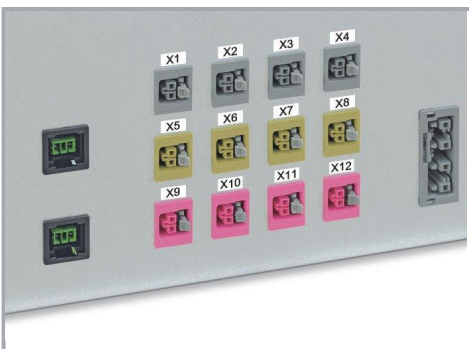


B-coded connectors (shown in gray) not only differ in color, but also in their design, making them incompatible with other coded connectors.

Important note:

Different colors and/or pole markings are used for circuit identification.

Only connectors of the same color and same pole marking must be plugged together.



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

Data sheet | Item number: 890-255

www.wago.com/890-255



Product family

WINSTA® MINI

[Show all products from the family](#)

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