







Dimensions in mm

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

The WINSTA® MINI male connector/plug B coding supports fast, reliable installation. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to many different requirements in next to no time. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. Pluggable installation connectors with B coding from the WINSTA® MINI line are available in gray, light green, or pink, allowing you to distinguish different circuits, for example for light, pumps or, sun blinds. Customer-specific pole marking is possible in addition. Particularly if only limited space is available, our smallest pluggable connection system, WINSTA® MINI, conveniently displays its advantageous properties. It saves space, and, thanks to Push-in CAGE CLAMP® spring pressure connection technology, it additionally can be installed quickly, since the installation is low-maintenance and requires no screw connections.

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. Now you can also lower installation expenses without compromising quality and safety: with marking eliminates the need for servicing and prevents unnecessary downtime.

- · pluggable installation connectors with protection against mismating
- easy tool-free operation, a wide range of coding options
- with B coding for controllers such as sun blinds and lighting fixtures
- · ready for immediate use
- · rapid, structured electrical installation

# Data Sheet | Item Number: 890-272 https://www.wago.com/890-272



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 60664	-1	
Overvoltage category	III	III	II	
Pollution degree	3	2	2	
Nominal voltage	250 V	-	-	
Rated surge voltage	4 kV	-	-	
Rated current	16 A	-	-	
General information				
Note on contact resistance	approx. 1 mΩ c approx. 0.25 m socket			

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er of potentials	2	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	2
		Conductor entry direction to mating direction	0°

Physical data	
Pin spacing	4.4 mm / 0.173 inches
Width	10.4 mm / 0.409 inches
Height	11.7 mm / 0.461 inches
Depth	34.1 mm / 1.343 inches

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Mechanical data	
Use	Control technology
Coding	В
Variable coding	No
Marking	21
Potential marking	21
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 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).

Material data	
Note (material data)	
	Information on material specifications can be found here
Color	light green
Cover color	gray
Material group	I
Insulation material (main housing)	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	0.062 MJ
Weight	2.5 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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https://www.wago.com/890-272



Commercial data	
Product Group	20 (Winsta)
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 8.0	EC002560
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143499637
Customs tariff number	85366990990

# **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

# Approvals / Certificates

# General approvals





Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-64351
CB DEKRA Certification B.V.	EN 61984	71-112993
cURus Underwriters Laboratories Inc.	UL 1977	E45171
KEMA/KEUR DEKRA Certification BV	EN 60320	2148952.04

# Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

# Approvals for marine applications





Approval	Standard	Certificate Name
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	08/20047 (E2)

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#### **Downloads**

# **Environmental Product Compliance**

#### Compliance Search

**Environmental Product** Compliance 890-272



## Documentation

Bid Text			
890-272	19.02.2019	xml 2.98 KB	<u>↓</u>
890-272	08.06.2015	doc 23.50 KB	$\overline{\downarrow}$

#### CAD/CAE-Data

#### CAD data

2D/3D Models 890-272



#### CAE data

WSCAD Universe 890-272





## 1 Compatible Products

# 1.1 System counterpart

#### 1.1.1 Cable assembly







# Item No.: 891-8992/105-105

pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. B; Control cable 2 x 1.0 mm²; 1 m; 1,00 mm²; light



pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. B; Control cable 2 x 1.0 mm²; 1 m; 1,00 mm²; light green

## 1.1.2 Distribution connector





#### Item No.: 890-1602

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; light

#### Item No.: 890-1702

T-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; 3 locking levers; for flying leads; light green

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#### 1.1.3 Female connector/socket

Item No.: 890-762

Snap-in socket; 2-pole; Cod. B; 1,50 mm²; light green

Item No.: 890-862/011-000

Socket for PCBs; angled; 2-pole; Cod. B; light green

Item No.: 890-862

Socket for PCBs; straight; 2-pole; Cod. B; light green

Item No.: 890-262

Socket; 2-pole; Cod. B; 1,50 mm<sup>2</sup>; light green

#### 1.2 Required Accessories

## 1.2.1 Locking system

#### 1.2.1.1 Locking system

Item No.: 890-111

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

Item No.: 890-131

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

Item No.: 890-101

Locking lever; for manual operation; black

Item No.: 890-121

Locking lever; for manual operation; white

#### 1.2.2 Strain relief

## 1.2.2.1 Strain relief housing

Item No.: 890-502/342-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 ... 8.2 mm; 17.5 mm; black

Item No.: 890-512/342-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 ... 8.2 mm; 17.5 mm; white

Item No.: 890-502

Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 ... 8.2 mm; 30 mm;

Item No.: 890-512

Strain relief housing; 2-pole; with locking clip; for 1 cable; 3.8 ... 8.2 mm; 30 mm; white

# 1.3 Optional Accessories

## 1.3.1 Cover

#### 1.3.1.1 Cover



Item No.: 897-2001

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

## 1.3.2 Installation

# 1.3.2.1 Mounting accessories

Item No.: 890-310

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

Item No.: 890-311

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



#### 1.3.3 Tool

#### 1.3.3.1 Operating tool



Item No.: 890-382

Operating tool; 2-way; green

Item No.: 210-719

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

#### **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.



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.



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.

#### Mismating protection



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

## 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.









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





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