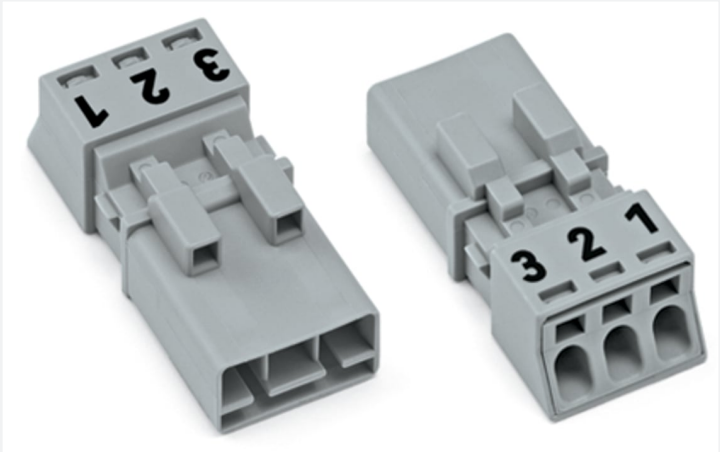
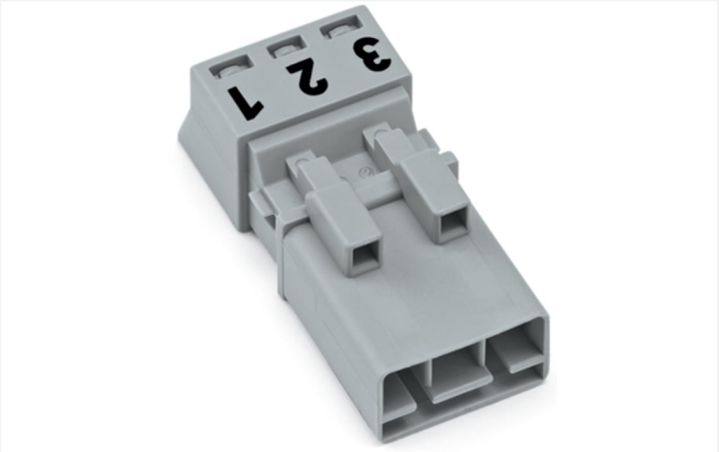
Data Sheet | Item Number: 890-253

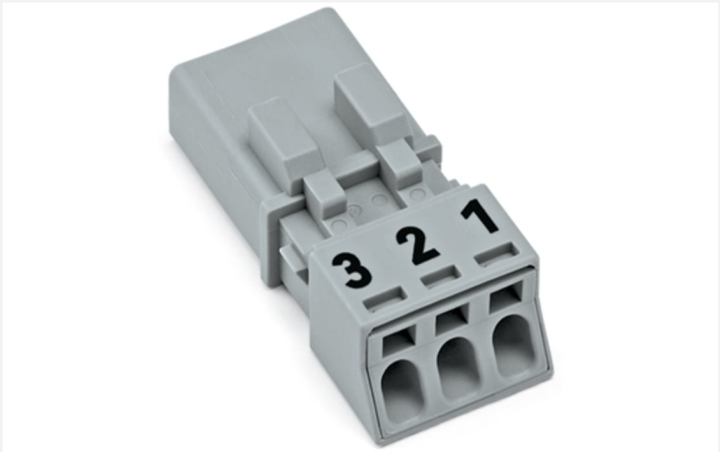
Plug; 3-pole; Cod. B; 1,50 mm²; gray

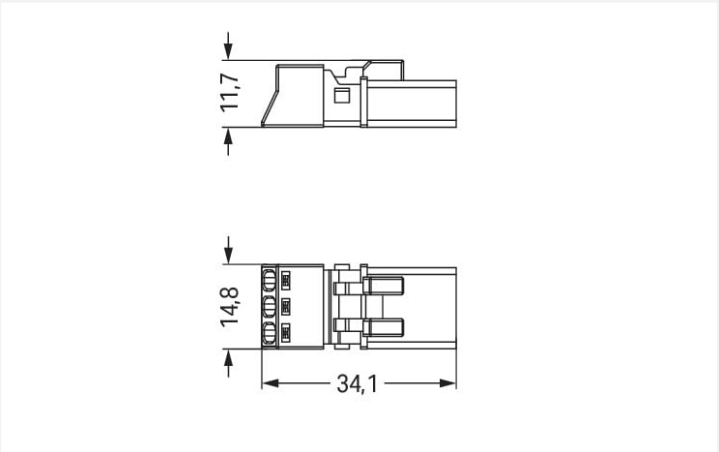
https://www.wago.com/890-253





Color: gray





Dimensions in mm

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

The *WINSTA*® MINI male connector/plug B coding provides the foundation for installation of fine-stranded and solid conductors. WAGO pluggable installation connectors are used when requirements repeat or are distributed on a specific grid, for example for installing grid lighting or flush-mount lighting. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. B coding enables the *WINSTA*® MINI pluggable installation connectors to be used for application control in the domains of automation, robotics, and mechanical engineering. *WINSTA*® MINI is our response to the trend toward miniaturisation. Our smallest pluggable connection system is very good for lights, for instance, since as a result of LED technology; due to complex systems, these offer much less space for the connection technology.

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

- effective protection against mismating
- easy tool-free operation, a wide range of coding options
- with B coding for controllers such as lighting fixtures and sun blinds
- ready to install and use immediately
- convenient installation and commissioning

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	-	-

Ratings per IEC/EN – Notes	
Rated current (note)	13 A for 3-pole load

Approvals per	UL 1977
Rated voltage	600 V
Rated current	14 A

General information	
Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket

Connection data

Clamping units	3
Total number of potentials	3

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 °

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

Use	Control technology
Coding	B
Variable coding	No
Marking	3 2 1
Potential marking	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

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	gray
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	0.111 MJ
Weight	3.6 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

Continued on next page

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	4055143499859
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 B.V.	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, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	08/20047 (E2)

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 890-253	

Documentation

Bid Text			
890-253	19.02.2019	xml 2.98 KB	
890-253	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data
2D/3D Models 890-253

CAE data
EPLAN Data Portal 890-253
WSCAD Universe 890-253
ZUKEN Portal 890-253

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 891-8993/105-103
pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. B; 1 m; 1,00 mm²; gray

Item No.: 891-8993/005-103
pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. B; 1 m; 1,00 mm²; gray

1.1.2 Distribution connector

Item No.: 890-1661
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; gray

Item No.: 890-1761
h-distribution connector; 3-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; gray

1.1.3 Female connector/socket

Item No.: 890-743
Snap-in socket; 3-pole; Cod. B; 1,50 mm²; gray

Item No.: 890-843/011-000
Socket for PCBs; angled; 3-pole; Cod. B; gray

Item No.: 890-843
Socket for PCBs; straight; 3-pole; Cod. B; gray

Item No.: 890-243
Socket; 3-pole; Cod. B; 1,50 mm²; gray

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.: 890-503
Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 … 10.0 mm; 37 mm; black

Item No.: 890-513
Strain relief housing; 3-pole; with locking clip; for 1 cable; 4.5 … 10.0 mm; 37 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

 Continued on next page

1.3.3 Tool

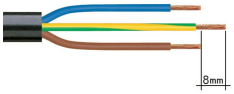
1.3.3.1 Operating tool

Item No.: 890-383
Operating tool; 3-way; green

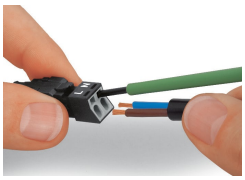
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

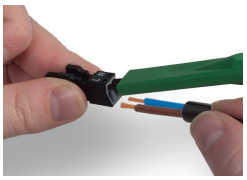
Conductor termination



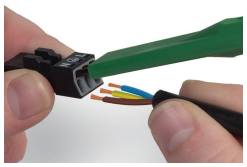
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

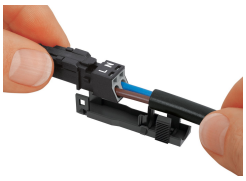


To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.
Terminate solid conductors by simply pushing them in.



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.

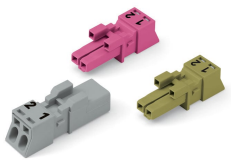
Push down strain relief clamp by hand.

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.