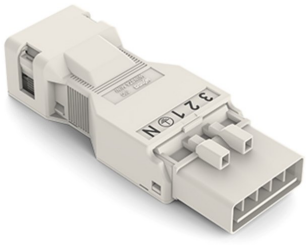
Data Sheet | Item Number: 890-135

Plug; with strain relief housing; 5-pole; 1,50 mm²; white

https://www.wago.com/890-135



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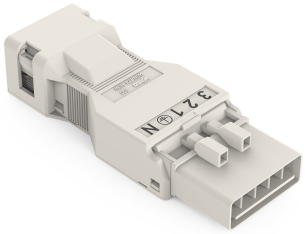
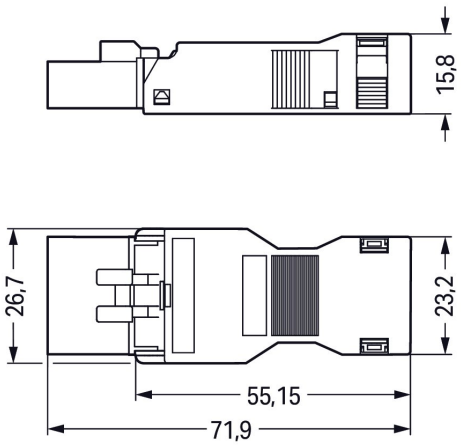
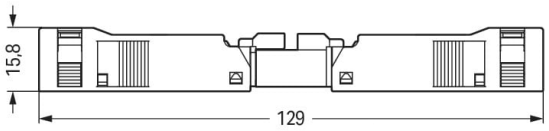




Dimensions in mm



Dimensions in mm

Overall length when mated

Male connector/plug *WINSTA*® MINI A coding

For signal and power transmission: The *WINSTA*® MINI male connector/plug with protection against mismating. WAGO pluggable installation connectors are used when criteria repeat or are planned on a specified pattern, for example for installing grid lighting or flush-mount lighting. For greater security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismating. The pluggable installation connector is protected against ingress by solid granular objects with a diameter of less than 1 mm in accordance with protection type IP40. Thanks to the color coding and mechanical A coding of *WINSTA*® MINI pluggable installation connectors, you can clearly distinguish different circuits. *WINSTA*® MINI satisfies the demand for miniaturisation. Our smallest pluggable connection system is primarily suited for lights, for instance, since as a result of LED technology; due to complex systems, these offer significantly less space for the connection technology. A range up to 45 mm can be used for the strip length.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and consequently faster, more reliable, and error-free. Using this pre-assembled system decreases time spent on assembly and errors during installation at the construction site. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP40 from WAGO.

- effective protection against mismating
- easy tool-free operation, a wide range of coding options
- with A coding for use in a large number of general mains applications
- custom-engineered solutions
- quick replacement of defective units during ongoing operation

This item includes:

Item No.: 890-235 — 1

Plug; 5-pole; Cod. A; 1,50 mm²; white

Item No.: 890-515 — 1

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

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated surge voltage	6 kV	-	-
Rated current	13 A	-	-

Approvals per	UL 1977
Rated voltage	600 V
Rated current	12 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	5
Total number of potentials	5

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

Continued on next page

Connection 1

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	5
Connectable sheathed cable diameter	6.5 … 10.5 mm
Conductor entry direction to mating direction	0 °
Strip length (outer insulation)	45 mm

Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	26.7 mm / 1.051 inches
Height	15.8 mm / 0.622 inches
Depth	71.9 mm / 2.831 inches

Mechanical data

Use	General mains applications
Coding	A
Variable coding	No
Marking	3 2 1 ⏚ N
Potential marking	3 2 1 ⏚ N
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	IP40

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).
Strain relief	Strain relief housing

Material data

Note (material data)	Information on material specifications can be found here
Color	white
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	0.352 MJ
Connector color	white
Strain relief color	white
Weight	11.6 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

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	DE
GTIN	4045454233037
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61535	71-123231
CCA DEKRA Certification B.V.	IEC 61535	NL-85020
cURus Underwriters Laboratories Inc.	UL 1977	E45171

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	-	-

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Approvals for marine applications

Approval	Standard	Certificate Name
ABS American Bureau of Shipping	Steel Vessel Rules	19-HG1869855-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	08/20047 (E2)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-135

Documentation

Bid Text

890-135	19.02.2019	xml 3.01 KB
890-135	08.06.2015	doc 23.50 KB

CAD/CAE-Data

CAD data

2D/3D Models 890-135

CAE data

WSCAD Universe 890-135

ZUKEN Portal 890-135

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly

Item No.: 891-8995/106-102
pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; white

Item No.: 891-8995/006-102
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; white

1.1.2 Distribution connector

Item No.: 890-979
h-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

Item No.: 890-980
h-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white

Item No.: 890-671
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

Item No.: 890-672
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white

1.1.3 Female connector/socket

Item No.: 890-725
Snap-in socket; 5-pole; Cod. A; 1,50 mm²; white

Item No.: 890-725/006-000
Snap-in socket; without locking lever; 5-pole; Cod. A; 1,50 mm²; white

Item No.: 890-825/011-000
Socket for PCBs; angled; 5-pole; Cod. A; white

Item No.: 890-825
Socket for PCBs; straight; 5-pole; Cod. A; white

Item No.: 890-225
Socket; 5-pole; Cod. A; 1,50 mm²; white

Item No.: 890-125
Socket; with strain relief housing; 5-pole; Cod. A; 1,50 mm²; white

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

1.3 Optional Accessories

1.3.1 Cover

1.3.1.1 Cover

Item No.: 897-2003
Protective cap; Type2; 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 Shield termination

1.3.3.1 Shield termination

Item No.: 890-527
Shield connecting plate; 5-pole; for plugs

1.3.4 Tool

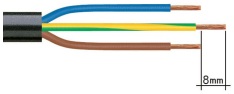
1.3.4.1 Operating tool

Item No.: 890-385
Operating tool; 5-way; green

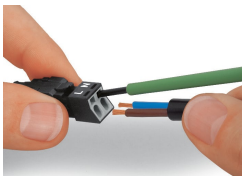
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

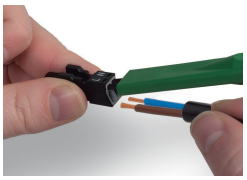
Conductor termination



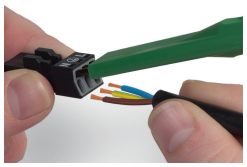
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

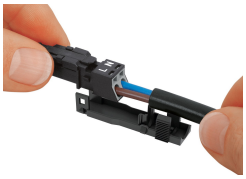


To terminate fine-stranded conductors, open clamping units via operating tool (890-382) and insert stripped conductors until they hit backstop.
Terminate solid conductors by simply pushing them in.



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.

Continued on next page

Shield termination

			
Connector with shield termination	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.