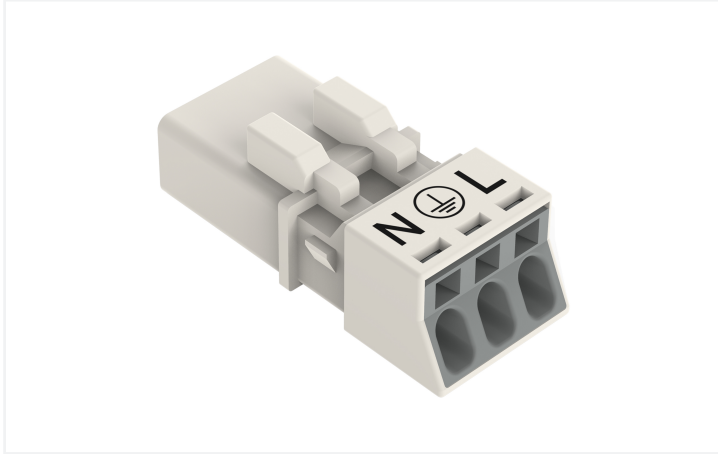


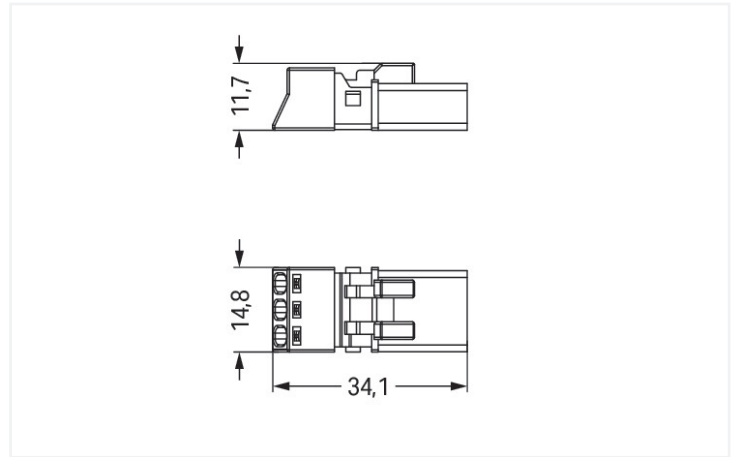
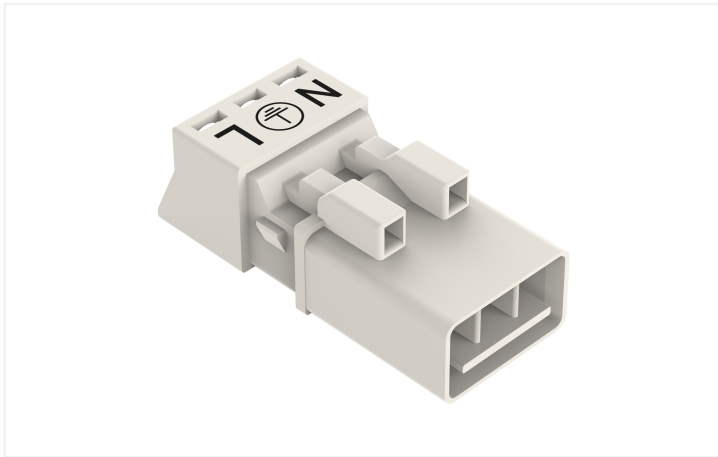
Data Sheet | Item Number: 890-233

Plug; 3-pole; Cod. A; 1,50 mm²; white

<https://www.wago.com/890-233>



Color: ■ white



Dimensions in mm

Male connector/plug WINSTA® MINI with protection against mismating

For power and signal transmission: The WINSTA® MINI male connector/plug rated current 16 A. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to an enormous variety of requirements in no time flat. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. The WINSTA® MINI pluggable installation connector with A coding in white or black is normally used for general mains applications in power distribution. WINSTA® MINI satisfies the demand for miniaturisation. Our smallest pluggable connection system is primarily suited for lights, for example, since as a result of LED technology; due to complex systems, these offer less and less space for the connection technology.

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

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It offers fast, secure and, above all, error-free installation of components and cables. Enjoy the benefits of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP20 from WAGO.

- pluggable installation connectors with protection against mismating
- compact design for conductors with a cross-section up to 1.5 mm²
- suitable for any application
- exact dimensions
- convenient installation and commissioning

Notes

General safety information

NOTICE: Observe installation and safety instructions!

- Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105- 100) anzuwenden!
- Nicht unter Spannung/Last installieren!
- Nur für bestimmungsgemäßen Gebrauch einsetzen!
- Nationale Vorschriften/Normen/Richtlinien beachten!
- Technische Daten der Produkte beachten!
- Auf die richtige Polbelegung achten!
- Keine beschädigten/verschmutzten Komponenten verwenden!
- Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!
- Leiter bis zum Anschlag einführen!
- Nur mit Verriegelungsklinke und Zugentlastung verwenden!
- Originalzubehör verwenden!

To be sold only with installation instructions!

Electrical data				
Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		250 V	-	-
Rated impulse withstand voltage		4 kV	-	-
Rated current		16 A	-	-

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	
PE function	Preceding PE contact	

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	General mains applications
Coding	A
Variable coding	Yes
Marking	N ⊕ L
Potential marking	N ⊕ 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
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	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	0.068 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

Commercial data	
Product Group	20 (Winsta)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143548540
Customs tariff number	85366990990

Product Classification	
UNSPSC	39121402
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations									
 											
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									
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Confor- mity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr><tr><td>UK-Declaration of Confor- mity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Approval	Standard	Certificate Name									
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-									

Approvals for marine applications

   		
Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	Steel Vessel Rules	24-0095973-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	EN 61535	LR23317167TA
PRS Polski Rejestr Statków	-	TE/1096/880590/23



Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 890-233

Download icon

Documentation				
Bid Text				
890-233	19.02.2019	xml	2.95 KB	Download icon
890-233	08.06.2015	doc	23.50 KB	Download icon

CAD/CAE-Data

CAD data

2D/3D Models 890-233

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CAE data

EPLAN Data Portal 890-233

Download icon

WSCAD Universe 890-233

Download icon

ZUKEN Portal 890-233

Download icon

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 891-8993/105-102 pre-assembled connecting cable; Eca; Socket/open-ended; 3-pole; Cod. A; 1 m; 1,00 mm²; white	Item No.: 891-8993/005-102 pre-assembled interconnecting cable; Eca; Socket/plug; 3-pole; Cod. A; 1 m; 1,00 mm²; white
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1.1.2 Distribution connector

[Item No.: 890-684](#)
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white

[Item No.: 890-686](#)
h-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white

[Item No.: 890-656](#)
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white

[Item No.: 890-665](#)
T-distribution connector; 3-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white



1.1.3 Female connector/socket



Item No.: 890-723
Snap-in socket; 3-pole; Cod. A; 1,50 mm²; white



Item No.: 890-823/011-000
Socket for PCBs; angled; 3-pole; Cod. A; white



Item No.: 890-823
Socket for PCBs; straight; 3-pole; Cod. A; white



Item No.: 890-223
Socket; 3-pole; Cod. A; 1,50 mm²; white



Item No.: 890-123
Socket; with strain relief housing; 3-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

1.2.2 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

1.3.3 Shield termination

1.3.3.1 Shield termination



Item No.: 890-523
Shield connecting plate; 3-pole; for sockets and plugs; silver-colored

1.3.4 Tool

1.3.4.1 Operating tool



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



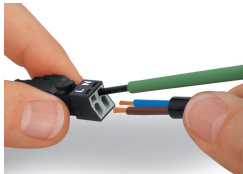
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Installation Notes

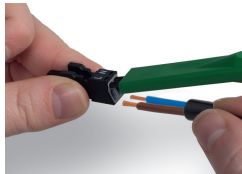
Conductor termination



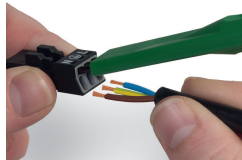
- 1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
- 2. Strip length = 9 mm
- 3. Extended ground conductor = 8 mm



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



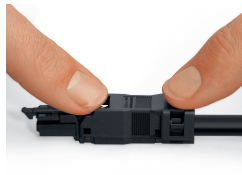
Latch the wired connector into the base of the strain relief housing.



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.

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.