

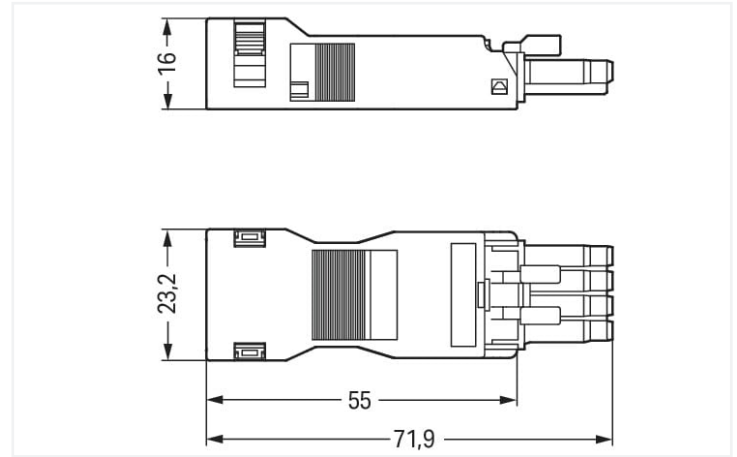
Data Sheet | Item Number: 890-104

Socket; with strain relief housing; 4-pole; Cod. A; 1,50 mm²; black

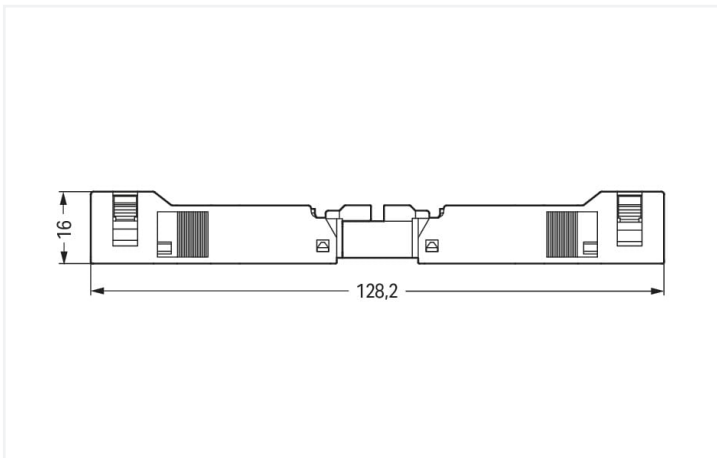
<https://www.wago.com/890-104>



Color: ■ black



Dimensions in mm



Dimensions in mm

Overall length when mated

Female connector/socket WINSTA® MINI with protection type IP40

The WINSTA® MINI female connector/socket 4-pole provides the foundation for installation of solid and fine-stranded conductors. 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 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 mismatching. The pluggable installation connector is protected against ingress by solid granular objects with a diameter below 1 mm in accordance with protection type IP40. General mains applications for almost any domain of use can be realised with WINSTA® MINI pluggable installation connectors with A coding. Especially if only limited space is available, our smallest pluggable connection system, WINSTA® MINI, conveniently displays its strengths. It is very compact, and, thanks to Push-in CAGE CLAMP® spring pressure connection technology, it also saves time, since the installation is low-maintenance and requires no screw connections. A range up to 45 mm can be used for the strip length.

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 saves time, lowers costs, and reduces the need for servicing. Choose quality and durability – with marking from WAGO makes the installation of electrical components significantly easier.

- effective protection against mismatching
- consistent IP40 protection
- with A coding for use in a large number of general mains applications
- ready to install and use immediately
- convenient installation and commissioning



This item includes:



Item No.: 890-204	1	Item No.: 890-504	1
Socket; 4-pole; Cod. A; 1,50 mm ² ; black		Strain relief housing; 4-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black	

Electrical data

Ratings per				IEC/EN 60664-1		Approvals per		UL 1977	
Overvoltage category				III	III	II	Rated voltage		600 V
Pollution degree				3	2	2	Rated current		12 A
Nominal voltage				400 V	-	-			
Rated surge voltage				6 kV	-	-			
Rated current				16 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		4
Total number of potentials		4
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		4
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	23.2 mm / 0.913 inches
Height	16 mm / 0.63 inches
Depth	71.9 mm / 2.831 inches

Mechanical data

Use	General mains applications
Coding	A
Variable coding	No
Marking	N ⊕ 2/L 1/L'
Potential marking	N ⊕ 2/L 1/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	IP40

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
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).
Strain relief	Strain relief housing

Material data

Note (material data)	Information on material specifications can be found here
Color	black
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	0.315 MJ
Connector color	black
Strain relief color	black
Weight	10.6 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	4045454232863
Customs tariff number	85366990990

Environmental Product Compliance	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
 					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61535	71-123231	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
CCA DEKRA Certification B.V.	IEC 61535	NL-85020	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cURus Underwriters Laboratories Inc.	UL 1977	E45171			

Approvals for marine applications

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



Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 890-104			

Documentation

Bid Text			
890-104	19.02.2019	xml 3.01 KB	
890-104	08.06.2015	doc 23.00 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 890-104	

CAE data	
WSCAD Universe 890-104	
ZUKEN Portal 890-104	

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



[Item No.: 891-8994/206-101](#)
pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; black



[Item No.: 891-8994/006-101](#)
pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution connector



[Item No.: 890-944](#)
h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; black



[Item No.: 890-945](#)
h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; black



[Item No.: 890-626](#)
T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



[Item No.: 890-627](#)
T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black

1.1.3 Male connector/plug



[Item No.: 890-5001/001-000](#)
Connector set; 4-pole; black



[Item No.: 890-814/011-000](#)
Plug for PCBs; angled; 4-pole; Cod. A; black



[Item No.: 890-814](#)
Plug for PCBs; straight; 4-pole; Cod. A; black



[Item No.: 890-214](#)
Plug; 4-pole; Cod. A; 1,50 mm²; black



[Item No.: 890-114](#)
Plug; with strain relief housing; 4-pole; 1,50 mm²; black

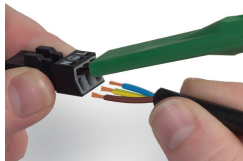
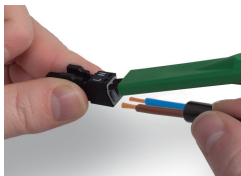
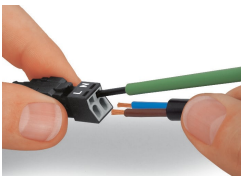
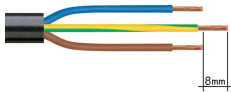


[Item No.: 890-714](#)
Snap-in plug; 4-pole; Cod. A; 1,50 mm²; black

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		
1.3.3 Shield termination			
1.3.3.1 Shield termination			
			
Item No.: 890-524 Shield connecting plate; 4-pole; for sockets			
1.3.4 Tool			
1.3.4.1 Operating tool			
			
Item No.: 890-384 Operating tool; 4-way; green	Item No.: 210-719 Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft		

Installation Notes

Conductor termination



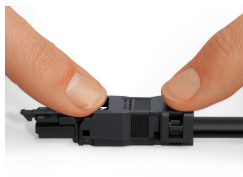
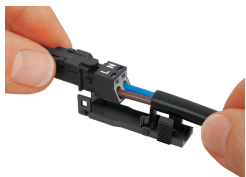
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

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.