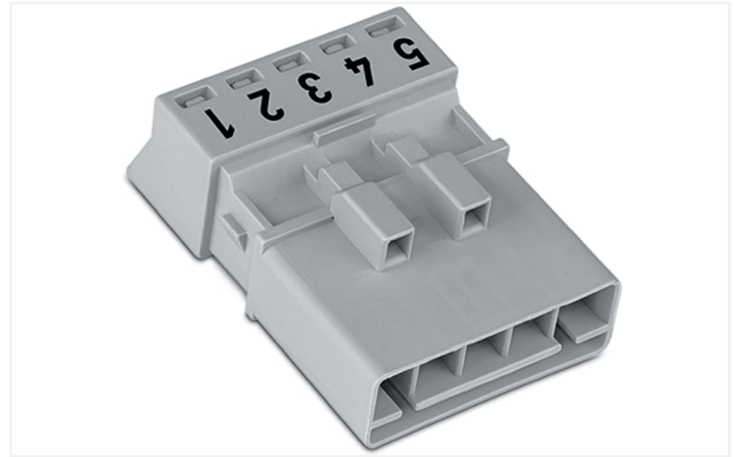
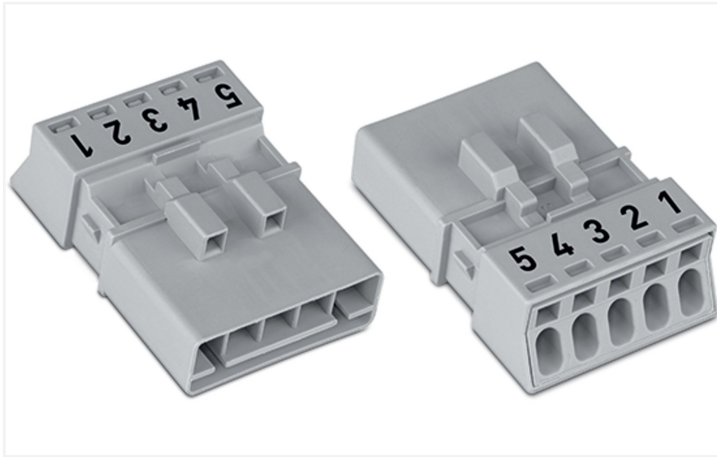


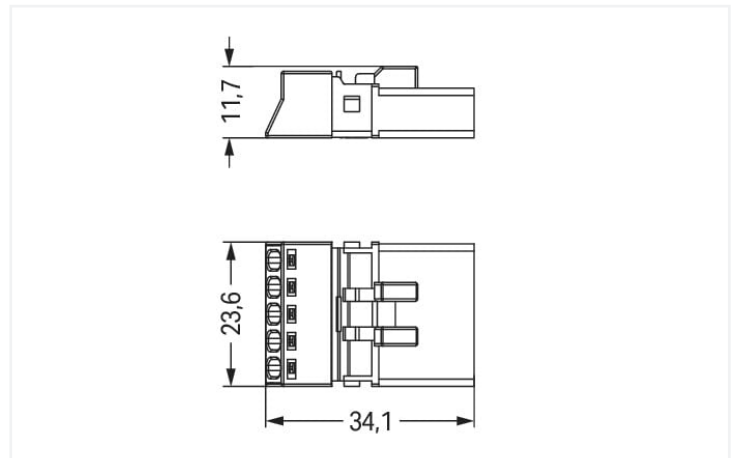
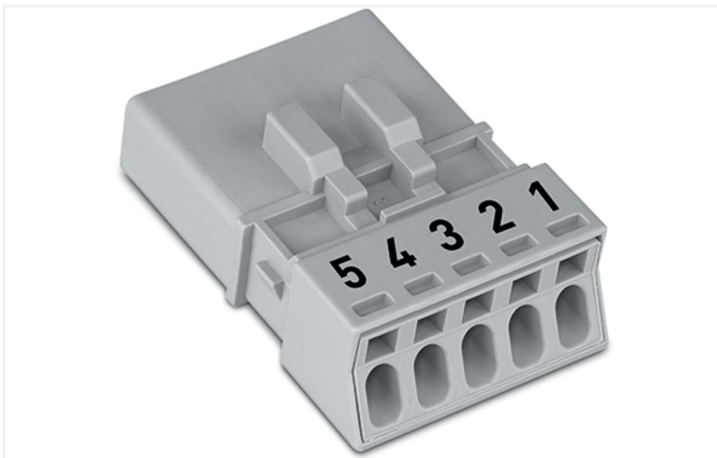
Data Sheet | Item Number: 890-255

Plug; 5-pole; Cod. B; 1,50 mm²; gray

<https://www.wago.com/890-255>



Color: ■ gray



Dimensions in mm

Male connector/plug WINSTA® MINI with protection type IP20

For signal and power transmission: The WINSTA® MINI male connector/plug with protection type IP20. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to a huge variety of requirements in next to no time. The mechanical coding and color coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismatching. Solutions like the WINSTA® MINI pluggable installation connectors with B coding are appropriate for process control, such as for lighting or in data networks. Where space is tight, our smallest pluggable connection system, WINSTA® MINI, conveniently displays its strengths. It is very compact, and, with Push-in CAGE CLAMP® spring pressure connection technology, it also can be installed quickly, since the connection is low-maintenance and requires no screw connections.

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

WINSTA® is the pluggable connection system that is ideally tailored to the strict requirements of electrical installation. It allows error-free installation of cables and components, quickly and reliably. Choose quality and durability – with marking from WAGO makes the installation of electrical components substantially easier.

- protection against mismatching eliminates errors
- consistent IP40 protection
- with B coding for use in automation of processes, such as lighting technology, for instance
- custom-engineered solutions
- fast, secure installation



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
Pollution degree		3	2
Nominal voltage		400 V	-
Rated surge voltage		6 kV	-
Rated current		16 A	-

Ratings per IEC/EN – Notes	
Rated current (note)	13 A for 3-pole load 10 A for 4- and 5-pole load

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
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
Conductor entry direction to mating direction	0°

Physical data	
Pin spacing	4.4 mm / 0.173 inches
Width	23.6 mm / 0.929 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	5 4 3 2 1
Potential marking	5 4 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 <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).

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	0.141 MJ
Weight	5.6 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	PL	
GTIN	4055143499736	
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
CB DEKRA Certification B.V.	EN 61984	NL-64351	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
CB DEKRA Certification B.V.	EN 61984	71-112993	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
cURus Underwriters Laboratories Inc.	UL 1977	E45171			
KEMA/KEUR DEKRA Certification B.V.	EN 60320	2148952.04			

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)



Downloads

Environmental Product Compliance

Compliance Search			
Environmental Product Compliance 890-255			

Documentation

Bid Text			
890-255	19.02.2019	xml 2.96 KB	
890-255	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 890-255	

CAE data	
ZUKEN Portal 890-255	

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 891-8995/105-103
pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. B; (H) 05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray



Item No.: 891-8995/005-103
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. B; (H) 05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray

1.1.2 Female connector/socket



Item No.: 890-745
Snap-in socket; 5-pole; Cod. B; 1,50 mm²; gray



Item No.: 890-845/011-000
Socket for PCBs; angled; 5-pole; Cod. B; gray



Item No.: 890-845
Socket for PCBs; straight; 5-pole; Cod. B; gray



Item No.: 890-245
Socket; 5-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.: 890-505](#)
Strain relief housing; 5-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black



[Item No.: 890-515](#)
Strain relief housing; 5-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; 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 Tool

1.3.3.1 Operating tool



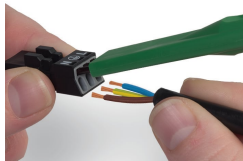
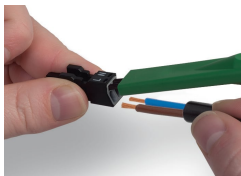
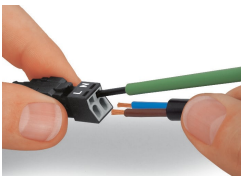
[Item No.: 890-385](#)
Operating tool; 5-way; green



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

Installation Notes

Conductor termination



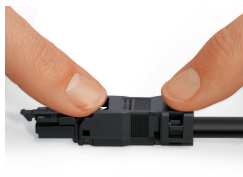
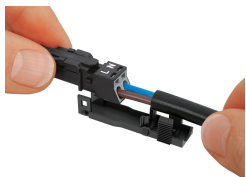
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm

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.

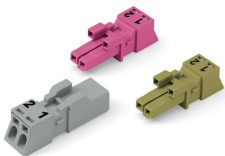
Push down strain relief clamp with 2.5 mm screwdriver alternately on both sides.

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.

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.

