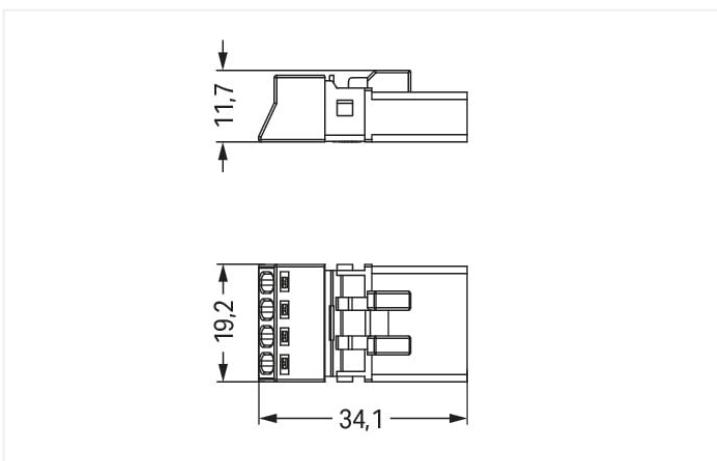


Color: ■ gray



Dimensions in mm

Male connector/plug *W/INSTA® MINI* with protection type IP20

The *W/INSTA® MINI* male connector/plug rated current 16 A supports fast, reliable installation. WAGO pluggable installation connectors are used when specifications repeat or are planned on a specified pattern, 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 mismatching. B coding enables the *W/INSTA® MINI* pluggable installation connectors to be used for control in applications in the domains of automation, mechanical engineering and robotics. *W/INSTA® MINI* follows the trend towards miniaturisation. Our smallest pluggable connection system is especially suitable for lights, for instance, since due to LED technology, these offer much less space for the connection technology.

*W/INSTA® MINI* solutions for your electrical installation – protected against mismatching and maintenance-free

*W/INSTA®* is the pluggable connection system that is optimally tailored to the strict requirements of electrical installation. It ensures 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 protection against mismatching from WAGO.

- protection against mismatching eliminates errors
- compact design for conductors with a cross-section up to 1.5 mm<sup>2</sup>
- with B coding for use in process automation, such as lighting technology, for example
- ready for immediate use
- quick replacement of defective units during ongoing operation

## 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-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	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 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	4
Conductor entry direction to mating direction	0 °

## Physical data

Pin spacing	4.4 mm / 0.173 inches
Width	19.2 mm / 0.756 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	4 3 2 1
Potential marking	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 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)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Cover color	gray
Material group	I
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	VO
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper or copper alloy; surface-treated
Contact Plating	Tin
Fire load	0.113 MJ
Weight	4.6 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	4055143523660
Customs tariff number	85366990990

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**Approvals / Certificates**

General approvals			Declarations of conformity and manufacturer's declarations		
					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 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**

Approvals for marine applications		
Approval	Standard	Certificate Name
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 890-254



## Documentation

#### Bid Text

890-254 19.02.2019 xml 2.96 KB



890-254 08.06.2015 doc 23.50 KB



## CAD/CAE-Data

#### CAD data

2D/3D Models 890-254



#### CAE data

WSCAD Universe  
890-254



ZUKEN Portal 890-254



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Cable assembly



##### [Item No.: 891-8994/105-103](#)

pre-assembled connecting cable; Eca;  
Socket/open-ended; 4-pole; Cod. B; Control  
cable 4 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>;  
gray

##### [Item No.: 891-8994/005-103](#)

pre-assembled interconnecting cable;  
Eca; Socket/plug; 4-pole; Cod. B; Control  
cable 4 x 1.0 mm<sup>2</sup>; 1 m; 1,00 mm<sup>2</sup>; gray

#### 1.1.2 Distribution connector



##### [Item No.: 890-1734](#)

3-way distribution connector; 4-pole; Cod. B;  
1 input; 3 outputs; gray



##### [Item No.: 890-1681](#)

h-distribution connector; 4-pole; Cod. B;  
1 input; 2 outputs; outputs on one side; 2  
locking levers; gray



##### [Item No.: 890-1781](#)

h-distribution connector; 4-pole; Cod. B;  
1 input; 2 outputs; outputs on one side; 3  
locking levers; for flying leads; gray



##### [Item No.: 890-1631](#)

T-distribution connector; 4-pole; Cod. B; 1  
input; 2 outputs; 2 locking levers; gray



##### [Item No.: 890-1731](#)

T-distribution connector; 4-pole; Cod. B; 1  
input; 2 outputs; 3 locking levers; for flying  
leads; gray

### 1.1.3 Female connector/socket



#### Item No.: 890-744

Snap-in socket; 4-pole; Cod. B; 1,50 mm<sup>2</sup>; gray



#### Item No.: 890-844/011-000

Socket for PCBs; angled; 4-pole; Cod. B; gray



#### Item No.: 890-844

Socket for PCBs; straight; 4-pole; Cod. B; gray



#### Item No.: 890-244

Socket; 4-pole; Cod. B; 1,50 mm<sup>2</sup>; gray

### 1.2 Required Accessories

#### 1.2.1 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.: 890-504

Strain relief housing; 4-pole; with locking clip; for 1 cable; 6.5 ... 10.5 mm; 45 mm; black



#### Item No.: 890-514

Strain relief housing; 4-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.: 890-384](#)

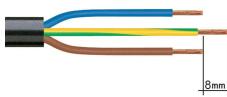
Operating tool; 4-way; green

[Item No.: 210-719](#)

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

## Installation Notes

## Conductor termination



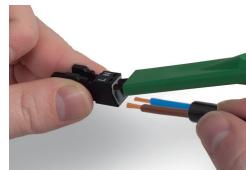
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)

2. Strip length = 9 mm

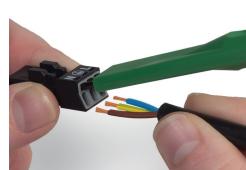
3. Extended ground conductor = 8 mm



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.

## 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.



