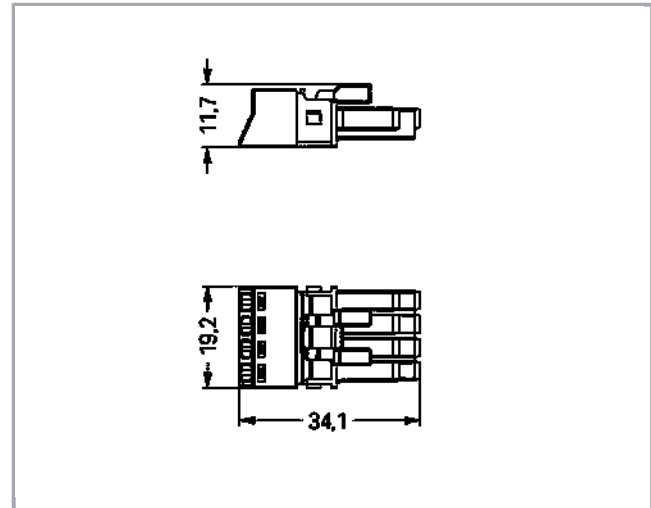
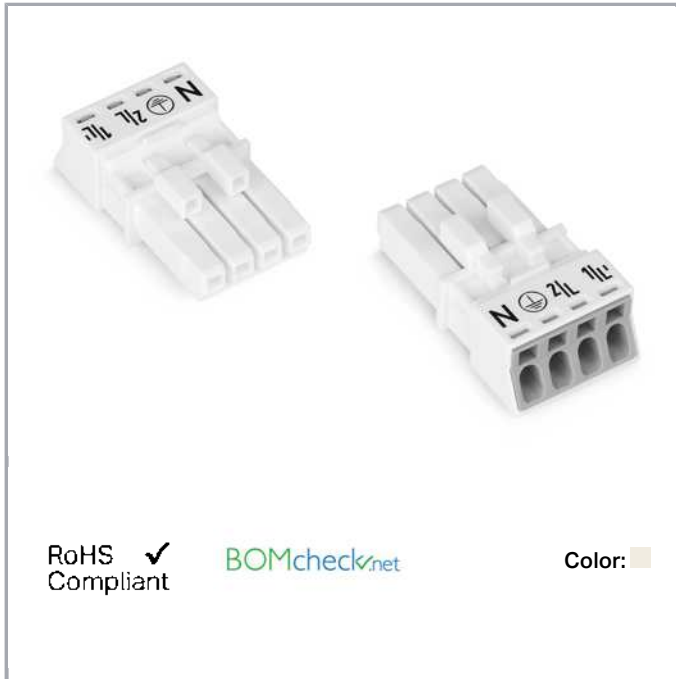


## Data sheet | Item number: 890-224

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

[www.wago.com/890-224](http://www.wago.com/890-224)



### Item description

- Protected against mismatching and maintenance-free
- Push-in CAGE CLAMP® spring pressure connection technology allows solid conductors to be simply pushed into a unit
- Compact design with 4.4 mm pole spacing
- When assembled, the installation connectors complies with IP40 and are suitable for easily accessible areas

#### Note:

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).

#### Note on mismatching protection:

All WINSTA® components are 100% protected against mismatching when:

- a.) plugging different numbers of poles
- b.) plugging while rotated 180
- c.) plugging while laterally staggered
- d.) plugging one pole

Subject to changes. Please also observe the further product documentation!

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**Safety information 1:**

Application note for the U.S. market (USR): Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 5 A and voltages up to 600 V. For further information, please contact your local sales office.

**Data****Electrical data**

Note on Contact Resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket
----------------------------	---

**Ratings per IEC/EN 60664-1**

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	400 V
Rated impulse voltage (III / 3)	6 kV
Rated current	16 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

**Approvals per UL 1977**

Rated voltage per UL 1977 (factory wiring only)	600 V
Rated current per UL 1977 (factory wiring only)	12 A

**Connection data**

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross section	1,5 mm²
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 ferrule with plastic collar	0,25 ... 0,75 mm² / 22 ... 20 AWG
Fine-stranded conductor with ferrule without plastic collar	0,25 ... 0,75 mm² / 22 ... 20 AWG
Fine-stranded conductor with ferrule, push-in termination, from	0,75 mm² / 20 AWG
Strip length	9 mm / 0.35 inch
Note (strip length)	see also packaging or instructions
No. of poles	4
Total number of connection points	4
Total number of potentials	4

Subject to changes. Please also observe the further product documentation!

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Conductor entry direction to mating direction

0°

## Geometrical Data

Pin spacing	4,4 mm / 0.173 inch
Width	19,2 mm / 0.756 inch
Height	11,7 mm / 0.461 inch
Depth	34,1 mm / 1.343 inch

## Mechanical data

Coding	A
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 100, with resistive load $I_N = 16$ A, tested (1.5 mm <sup>2</sup> /AWG 16)
Marking	N 2/L 1/L'
Protection class	IP20
Note on protection class	IP40 with strain relief housing
Potential marking	N 2/L 1/L'
Application	General mains applications

## Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for conductor
Mismating protection	Yes
Locking of plug-in connection	locking lever
Locking lever	retrofitable

## Material Data

Color	white
Insulating material	Polyamide 66 (PA 66)
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper or copper alloy (surface-treated)
Fire load	0.095 MJ

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Weight	5 g
--------	-----

## Environmental Requirements


Processing temperature	-5 ... +40 °C
Continuous operating temperature	-35 ... +85 °C
Note on Continuous Service Temperature	Insulating parts for temperatures ≤ 105 °C

## Commercial data

Product Group	20 (WINSTA)
Packaging type	BOX
Country of origin	DE
GTIN	4045454233198
Customs Tariff No.	85366990990

## Approvals / Certificates

### Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CCA</b> DEKRA Certification B.V.	EN 61535	71-102984

### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	Steel Vessel Rules	19-HG1869855-PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	<b>LR</b> Lloyds Register	EN 61535	08/20047 (E2)


### UL-Approvals

Certificate











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Logo	Approval	Additional Approval Text	name
	cURus Underwriters Laboratories Inc.	UL 1977	E45171

## Counterpart

	<b>Item no.890-234</b> Plug; 4-pole; 1,50 mm <sup>2</sup> ; white	<a href="http://www.wago.com/890-234">www.wago.com/890-234</a>
	<b>Item no.890-134</b> Plug; with strain relief housing; 4-pole; 1,50 mm <sup>2</sup> ; white	<a href="http://www.wago.com/890-134">www.wago.com/890-134</a>
	<b>Item no.890-676</b> T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white	<a href="http://www.wago.com/890-676">www.wago.com/890-676</a>
	<b>Item no.890-677</b> T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; white	<a href="http://www.wago.com/890-677">www.wago.com/890-677</a>
	<b>Item no.890-734</b> Snap-in plug; 4-pole; Cod. A; 1,50 mm <sup>2</sup> ; white	<a href="http://www.wago.com/890-734">www.wago.com/890-734</a>
	<b>Item no.890-834</b> Plug for PCBs; straight; 4-pole; Cod. A	<a href="http://www.wago.com/890-834">www.wago.com/890-834</a>
	<b>Item no.890-834/011-000</b> Plug for PCBs; angled; 4-pole; Cod. A	<a href="http://www.wago.com/890-834/011-000">www.wago.com/890-834/011-000</a>
	<b>Item no.890-994</b> h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 2 locking levers; white	<a href="http://www.wago.com/890-994">www.wago.com/890-994</a>
	<b>Item no.890-995</b> h-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; white	<a href="http://www.wago.com/890-995">www.wago.com/890-995</a>
	<b>Item no.891-8994/006-102</b> pre-assembled interconnecting cable; Eca; Socket/plug; 4-pole; Cod. A; H05VV-F 4G 1.5 mm <sup>2</sup> ; 1 m; 1,50 mm <sup>2</sup> ; white	<a href="http://www.wago.com/891-8994/006-102">www.wago.com/891-8994/006-102</a>

Subject to changes. Please also observe the further product documentation!

**Item no. 891-8994/206-102**

pre-assembled connecting cable; Eca; Plug/open-ended; 4-pole; Cod. A; H05VV-F 4G 1.5 mm<sup>2</sup>; 1 m;  
1,50 mm<sup>2</sup>; white

[www.wago.com/891-8994](http://www.wago.com/891-8994)  
/206-102

## Compatible products

### Strain relief plate

**Item no.: 890-504**

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

[www.wago.com/890-504](http://www.wago.com/890-504)

**Item no.: 890-514**

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

[www.wago.com/890-514](http://www.wago.com/890-514)

### shield connection

**Item no.: 890-524**

Shield connecting plate; 4-pole; for sockets

[www.wago.com/890-524](http://www.wago.com/890-524)

### tools

**Item no.: 210-719**

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

[www.wago.com/210-719](http://www.wago.com/210-719)

**Item no.: 890-384**

Operating tool; 4-way; green

[www.wago.com/890-384](http://www.wago.com/890-384)

### assembling

**Item no.: 890-310**

Mounting carrier; 2- to 5-pole; for flying leads; black

[www.wago.com/890-310](http://www.wago.com/890-310)

**Item no.: 890-311**

Mounting carrier; 2- to 5-pole; for flying leads; white

[www.wago.com/890-311](http://www.wago.com/890-311)

### Locking lever

**Item no.: 890-101**

Locking lever; for manual operation; black

[www.wago.com/890-101](http://www.wago.com/890-101)

**Item no.: 890-111**

Locking lever; for flying leads; for tool operation; black

[www.wago.com/890-111](http://www.wago.com/890-111)

**Item no.: 890-121**

Locking lever; for manual operation; white

[www.wago.com/890-121](http://www.wago.com/890-121)

**Item no.: 890-131**

Locking lever; for flying leads; for tool operation; white

[www.wago.com/890-131](http://www.wago.com/890-131)

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## Downloads

### Documentation

#### Bid Text

890-224 GAEB X81 - Datei	Feb 19, 2019	xml 3.0 kB	<a href="#">Download</a>
890-224 doc - Datei	Jun 8, 2015	doc 23.0 kB	<a href="#">Download</a>

### CAD/CAE-Data

#### CAD data

2D/3D Models 890-224	URL	<a href="#">Download</a>
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#### CAE data

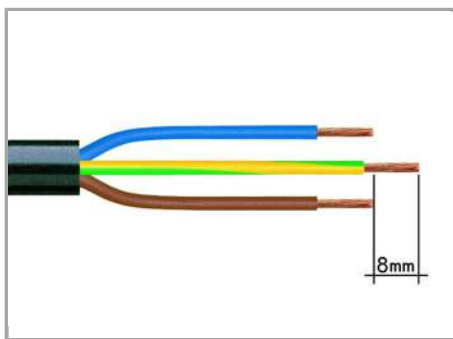
WSCAD Universe 890-224	URL	<a href="#">Download</a>
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## Installation Notes

Subject to changes. Please also observe the further product documentation!

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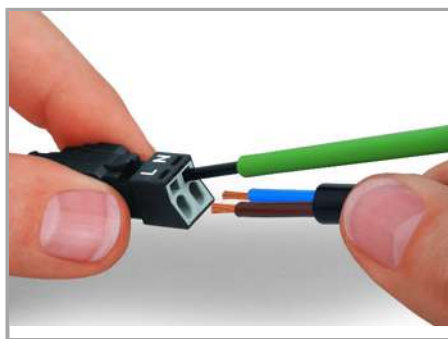
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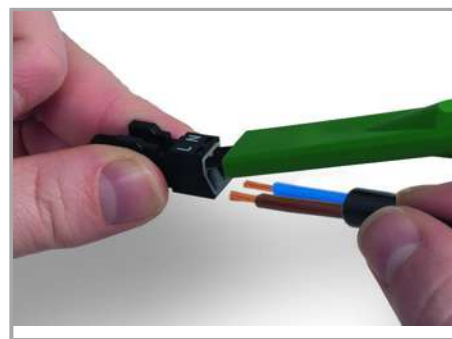
1. Strip length, outer insulation = 30 mm (2-pole), 37 mm (3-pole), 45 mm (4- and 5-pole)

2. Strip length = 9 mm

3. Extended ground conductor = 8 mm

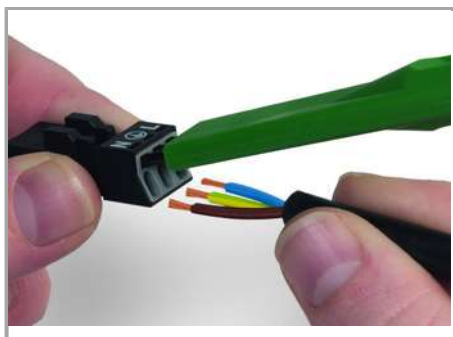


To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits backstop. Terminate solid conductors by simply pushing them in.



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.

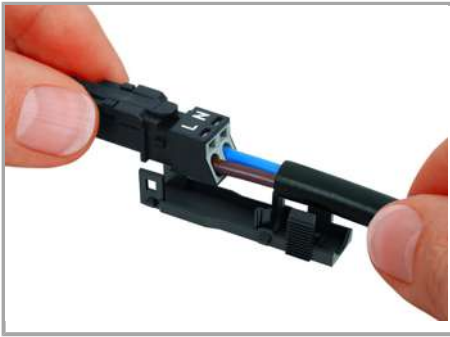
## Installation

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



Push down strain relief clamp by hand.



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



Latch the top of the strain relief housing.



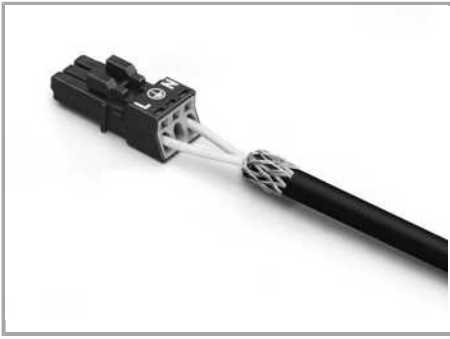
The printed marking of the connector is clearly visible in the openings of the strain relief housing.

#### Shield Connection



Connector with shield termination

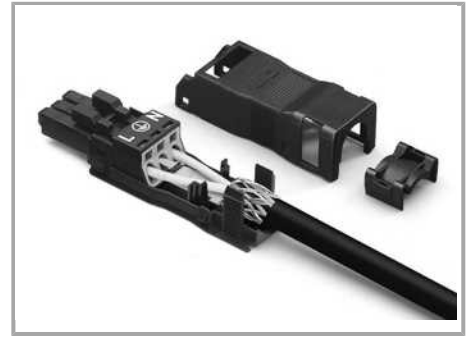
Subject to changes. Please also observe the further product documentation!



Apply the shield to the rubber cable.



Push the shield connecting plate into the connector until fully inserted.



First insert wired connector into strain relief housing, then snap the clamp and cover.

Strip length, outer insulation = 30 mm

Shield length = 8 mm

## Product family

**<i>WINSTA</i>® MINI**

[Show all products from the family](#)

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