

Data sheet | Item number: 770-1112

Plug; 2-pole; Cod. I; 4,00 mm<sup>2</sup>; blue

[www.wago.com/770-1112](http://www.wago.com/770-1112)



Color:



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

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## Item description

### Male connector/plug *WINSTA*® MIDI with protection type IP20

For signal and power transmission: The *WINSTA*® MIDI male connector/plug I coding. The pluggable installation connectors with spring pressure connection technology function completely without screw connections. They allow fast, efficient, error-free installation in numerous possible uses. 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 objects in accordance with protection type IP20 (When mated and secured with a strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas!)). Controlled lighting equipment, as implemented in the DALI standard, for example, is the main use of *WINSTA*® MIDI pluggable installation connectors with I coding. This pluggable installation connector is designed for a voltage load of up to 25 A. Thus, it can also be used for high power loads. *WINSTA*® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is found in can be found in a variety of projects you can use for quick, easy, flexible, and secure electrical installation.

### *WINSTA*® MIDI solutions for your electrical installation – protected against mismatching and maintenance-free

The *WINSTA*® Pluggable Connection System is perfectly tailored to the very strict requirements of building installation. It makes electrical installation pluggable, and thus faster, more reliable, and error-free. Using this pre-assembled system decreases time spent on assembly and installation errors at the construction site. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with *WINSTA*® MIDI pluggable installation connectors with protection type IP20 from WAGO.

- protection against mismatching eliminates errors
- pre-assembled versions
- with I coding for lighting control (DALI standard)
- custom-engineered solutions
- quick replacement of defective units during ongoing operation

## Data

### Electrical data

#### Ratings per IEC/EN

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	250 V
Rated impulse voltage (III/3)	4 kV
Rated current	25 A

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Legend (ratings)

(III / 3) ≙ Overvoltage category III / Pollution degree 3

## Ratings per UL 1977

Note for the US market

Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 16 A and voltages up to 600 V. For further information, please contact your local sales office.

Rated voltage (UL 1977)

600 V

Rated current UL 1977

23 A

## General information

Note on contact resistance

approx. 1 mΩ of contact resistance  
approx. 0.25 mΩ contact transition plug/socket

## Connection data

Connection points

4

Total number of potentials

2

## Connection 1

Connection technology

Push-in CAGE CLAMP®

Actuation type

Operating tool  
Push-in

Nominal cross-section

4 mm<sup>2</sup> / 12 AWG

Solid conductor

0.5 ... 4 mm<sup>2</sup> / 20 ... 12 AWG

Solid conductor; push-in termination

1.5 ... 4 mm<sup>2</sup> / 16 ... 12 AWG

Stranded conductor

0.5 ... 2.5 mm<sup>2</sup> / 20 ... 14 AWG

Fine-stranded conductor

0.5 ... 4 mm<sup>2</sup> / 20 ... 12 AWG

Fine-stranded conductor; with insulated ferrule

0.25 ... 1.5 mm<sup>2</sup> / 20 ... 16 AWG

Fine-stranded conductor; with uninsulated ferrule

0.25 ... 2.5 mm<sup>2</sup> / 20 ... 14 AWG

Fine-stranded conductor; with ferrule; push-in termination

1.5 mm<sup>2</sup> / 16 AWG

Strip length

9 mm / 0.35 inches

Pole number

2

Conductor entry direction to mating direction

0°

## Physical data

Pin spacing

10 mm / 0.394 inches

Width

20 mm / 0.787 inches

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Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

## Mechanical Data

Application	DALI, Lighting Management
Coding	I
Variable coding	No
Marking	DA- DA+
Potential marking	DA- DA+
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; When mated and secured with a strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas!)

## 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> <sup>®</sup> 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
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Color	blue
Cover color	gray
Material group	I
Insulation material	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	0.139 MJ
Weight	6.5 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 8.0	EC002560
ETIM 7.0	EC002560
PU (SPU)	100 pcs
Packaging type	box
Country of origin	DE
GTIN	4050821028321
Customs tariff number	85366990990

### Environmental Product Compliance

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

#### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	IEC 61535	NL -84761

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<b>CCA</b> DEKRA Certification B.V.	EN 61535	71- 123228
<b>cURus</b> Underwriters Laboratories Inc.	UL 1977	E45171
<b>cURus</b> Underwriters Laboratories Inc.	UL 1059	E 45172
<b>VDE</b> VDE Prüf- und Zertifizierungsinstitut	EN 61535	40029808

#### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

#### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19- HG1868589- PDA
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	<b>LR</b> Lloyds Register	IEC 61984	LR22429487TA

#### Counterpart

<b>Item no.770-1102</b> Socket; 2-pole; Cod. I; 4,00 mm <sup>2</sup> ; blue	<a href="http://www.wago.com/770-1102">www.wago.com/770-1102</a>
<b>Item no.770-7102</b> Linect® T-connector; 2-pole; Cod. I; 1 input; 2 outputs; white	<a href="http://www.wago.com/770-7102">www.wago.com/770-7102</a>
<b>Item no.771-8982/006-101</b> pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. I; H05VV-F 2 x 1.5 mm <sup>2</sup> ; 1 m; 1,50 mm <sup>2</sup> ; blue	<a href="http://www.wago.com/771-8982/006-101">www.wago.com/771-8982/006-101</a>
<b>Item no.771-8982/106-101</b> pre-assembled connecting cable; Eca; Socket/open-ended; 2-pole; Cod. I; H05VV-F 2 x 1.5 mm <sup>2</sup> ; 1 m; 1,50 mm <sup>2</sup> ; blue	<a href="http://www.wago.com/771-8982/106-101">www.wago.com/771-8982/106-101</a>

#### Required accessories

##### Strain relief

Strain relief housing
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**Item no.: 770-502/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black

[www.wago.com/770-502/041-000](http://www.wago.com/770-502/041-000)**Item no.: 770-502/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; black

[www.wago.com/770-502/042-000](http://www.wago.com/770-502/042-000)**Item no.: 770-512/041-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; white

[www.wago.com/770-512/041-000](http://www.wago.com/770-512/041-000)**Item no.: 770-512/042-000**

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; white

[www.wago.com/770-512/042-000](http://www.wago.com/770-512/042-000)**Locking levers**

## Locking system

**Item no.: 770-121**

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

[www.wago.com/770-121](http://www.wago.com/770-121)**Item no.: 770-131**

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

[www.wago.com/770-131](http://www.wago.com/770-131)**Item no.: 770-101**

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

[www.wago.com/770-101](http://www.wago.com/770-101)**Item no.: 770-111**

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

[www.wago.com/770-111](http://www.wago.com/770-111)**Optional accessories****Cover**

## Cover

**Item no.: 770-360**

Lockout cap; for plugs; 5-pole; separable; yellow

[www.wago.com/770-360](http://www.wago.com/770-360)**Item no.: 897-2003**

Protective cap; Type2; for sockets and plugs; PVC; red

[www.wago.com/897-2003](http://www.wago.com/897-2003)**Mounting**

## Mounting accessories

**Item no.: 770-317**

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; black

[www.wago.com/770-317](http://www.wago.com/770-317)**Item no.: 770-337**

Snap-in frame; 2-pole; 1.0 ... 3.0 mm; white

[www.wago.com/770-337](http://www.wago.com/770-337)**Item no.: 897-2100**

Mounting plate; for Snap-in; Plastic; for detectors and sensors ; Ø 200 mm; red

[www.wago.com/897-2100](http://www.wago.com/897-2100)

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## Tool

### Operating tool

**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.: 770-382**

Operating tool; 2-way; green

[www.wago.com/770-382](http://www.wago.com/770-382)

## Downloads

### Documentation

#### Bid Text

770-1112 X81 - Datei	2019 年2月19 日	xml 3.0 kB	Download
770-1112 doc - Datei	2015 年6月8 日	doc 24.1 kB	Download

## CAD/CAE-Data

### CAE data

EPLAN Data Portal 770-1112	URL	Download
WSCAD Universe 770-1112	URL	Download

## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 770-1112 Plug; 2-pole; Cod. I; 4,00 mm <sup>2</sup> ; blue	URL	Download
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## Installation Notes

### Conductor termination

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1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 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.



Insert the stripped solid conductor until it hits the backstop.



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.

#### Conductor removal

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To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

### Installation



We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



Latch the strain relief housing onto the plug /socket. Note the "TOP" inscription.



Prepare strain relief housing by snapping together upper and bottom part.



Tighten strain relief screw with screwdriver (2.5 mm blade width).

### Product family

WINSTA® MIDI

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[Show all products from the family](#)

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

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