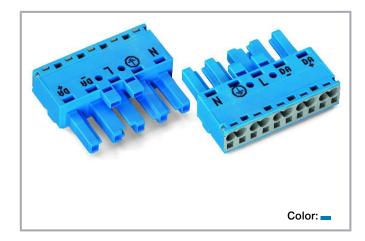
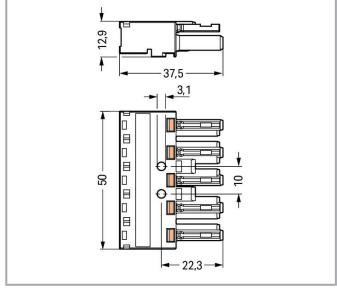
Socket; 5-pole; Cod. I; 4,00 mm<sup>2</sup>; blue

www.wago.com/770-1105







# Item description

## Female connector/socket WINSTA® MIDI 5-pole

The WINSTA® MIDI female connector/socket I coding is the pluggable solution for your use in control cabinets, on PCBs or for lighting connections. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to an enormous variety of requirements in seconds. The coding options reduce installation errors, allowing fast, secure wiring of all components. The pluggable installation connector offers touch-proof protection with live components 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!)). Regulated lighting, as used with the DALI standard, for instance, is the main use of WINSTA® MIDI pluggable installation connectors with I coding. The rated current and voltage are important criteria for selecting a pluggable installation connector: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is suitable 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, secure, tailored installation.

# 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

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servicing. 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 marking from WAGO.

- pluggable installation connectors with protection against mismating
- simple circuits
- with I coding for use in building automation (lighting control)
- exact dimensions
- 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)       | 400 V          |
| Rated impulse voltage (III/3) | 6 kV           |
| Rated current                 | 25 A           |
| Legend (ratings)              | (III / 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

| Note on contact resistance | approx. 1 m $\Omega$ of contact resistance             |
|----------------------------|--|
|                            | approx. 0.25 m $\Omega$ contact transition plug/socket |

# Connection data

| Connection points          | 10 |
|----------------------------|----|
| Total number of potentials | 5  |

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# Connection 1

| Connection technology                                      | Push-in CAGE CLAMP®               |
|--|-----------------------------------|
| Actuation type   | Operating tool                    |
|  | Push-in                           |
| Nominal cross-section                                      | 4 mm² / 12 AWG                    |
| Solid conductor  | 0.5 4 mm <sup>2</sup> / 20 12 AWG |
| Solid conductor; push-in termination                       | 1.5 4 mm² / 16 12 AWG             |
| Stranded conductor   | 0.5 2.5 mm² / 20 14 AWG           |
| Fine-stranded conductor                                    | 0.5 4 mm² / 20 12 AWG             |
| Fine-stranded conductor; with insulated ferrule            | 0.25 1.5 mm² / 20 16 AWG          |
| Fine-stranded conductor; with uninsulated ferrule          | 0.25 2.5 mm² / 20 14 AWG          |
| Fine-stranded conductor; with ferrule; push-in termination | 1.5 mm² / 16 AWG                  |
| Strip length   | 9 mm / 0.35 inches                |
| Pole number  | 5                                 |
| Conductor entry direction to mating direction              | 0 °                               |
|  |                                   |

# Physical data

| Pin spacing | 10 mm / 0.394 inches   |
|-------------|------------------------|
| Width       | 50 mm / 1.969 inches   |
| 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                                 | N  |
| Potential marking                       | N <sub>\( \psi\) L DA- DA+</sub>   |
| 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!) |

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# Plug-in connection

| Contact type (pluggable connector) | Female connector/socket  |
|------------------------------------|--|
| 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)

| Information or           | material | specifications  | can be  | found  | here  |
|--------------------------|----------|-----------------|---------|--------|-------|
| ii ii Oi i ii atioi i oi | material | apecinications. | Carrioe | Touriu | 11616 |

| Color                       | blue                                    |
|-----------------------------|---|
| Cover color                 | gray                                    |
| Material group              | I                                       |
| Insulation material         | 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                   | 0.392 MJ                                |
| Weight                      | 15.4 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 |

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# Commercial data

| 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)              | 50 pcs        |
| Packaging type        | box           |
| Country of origin     | DE            |
| GTIN                  | 4044918252706 |
| Customs tariff number | 85366990990   |

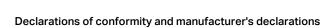
# **Environmental Product Compliance**

RoHS Compliance Status Compliant, No Exemption

# Approvals / Certificates

## General approvals

| Logo             | Approval                                       | Additional Approval Text | Certificate<br>name |
|------------------|--|--------------------------|---------------------|
| KEMA             | CCA DEKRA Certification B.V.                   | EN 61535                 | 71-<br>123228       |
|                  | CCA DEKRA Certification B.V.                   | IEC 61535                | NL -84761           |
| c <b>911</b> °us | <b>cURus</b><br>Underwriters Laboratories Inc. | UL 1977                  | E45171              |
| VDE              | VDE<br>VDE Prüf- und Zertifizierungsinstitut   | EN 61535                 | 40029808            |



|      |                              |                          | Certificate |
|------|------------------------------|--------------------------|-------------|
| Logo | Approval                     | Additional Approval Text | name        |
|      | EU-Declaration of Conformity | -                        | -           |
|      | WAGO GmbH & Co. KG           |                          |             |

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| Logo   | Approval                               | Additional Approval Text | Certificate<br>name |
|--|--|--------------------------|---------------------|
| ABS.   | ABS                                    | -                        | 19-                 |
| The last   | American Bureau of Shipping            |                          | HG1868589-          |
| TAPRONED PRO   |  |                          | PDA                 |
| AND NED AND  | DNV GL                                 | -                        | TAE00001Z6          |
| DNV  | Det Norske Veritas, Germanischer Lloyd |                          |                     |
|  | LR                                     | IEC 61984                | LR22429487TA        |
| DE THE APPROXIMENT | Lloyds Register                        |                          |                     |

# Counterpart

| THE PERSON NAMED IN | Item no.770-1115<br>Plug; 5-pole; 4,00 mm²; blue   | www.wago.com/770-1115             |
|---------------------|--|-----------------------------------|
|                     | Item no.770-1115/022-000<br>Plug; with strain relief housing; 5-pole; Cod. I; 4,00 mm²; blue         | www.wago.com/770-1115<br>/022-000 |
| <b>£</b>            | Item no.770-1947<br>5-way distribution connector; 5-pole; Cod. I; 1 input; 5 outputs                 | www.wago.com/770-1947             |
| THE PARTY           | ltem no.770-2115<br>Snap-in plug; 5-pole; Cod. I; 4,00 mm²; blue                                     | www.wago.com/770-2115             |
|                     | Item no.770-2115/007-000<br>Snap-in plug; with direct ground contact; 5-pole; Cod. I; 4,00 mm²; blue | www.wago.com/770-2115<br>/007-000 |
|                     | Item no.770-3115 Plug for PCBs; straight; 5-pole; Cod. I; blue                                       | www.wago.com/770-3115             |
|                     | Item no.770-3115/011-000<br>Plug for PCBs; angled; 5-pole; Cod. I; blue                              | www.wago.com/770-3115<br>/011-000 |

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Item no.770-617

T-distribution connector; 5-pole; Cod. I; 1 input; 2 outputs; 2 locking levers; blue

www.wago.com/770-617



#### Item no.770-618

3-way distribution connector; 5-pole; Cod. I; 1 input; 3 outputs; blue

www.wago.com/770-618



#### Item no.770-620

T-distribution connector; 5-pole; Cod. I; 1 input; 2 outputs; 3 locking levers; for flying leads; blue

www.wago.com/770-620



#### Item no.770-7105

Linect® T-connector; 5-pole; Cod. I; 1 input; 2 outputs; blue

www.wago.com/770-7105



#### Item no.770-992

h-distribution connector; 5-pole; Cod. I; 1 input; 2 outputs; outputs on both sides; 2 locking levers;

www.wago.com/770-992



#### Item no.770-993

h-distribution connector; 5-pole; Cod. I; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for www.wago.com/770-993 flying leads; blue



#### Item no.771-9985/006-101

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. I;  $H05VV-F\ 5G\ 1.5\ mm^2$ ; 1 m; 1,50 mm²; blue

www.wago.com/771-9985

/006-101



# Item no.771-9985/206-101

pre-assembled connecting cable; Eca; Plug/open-ended; 5-pole; Cod. I; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; blue

www.wago.com/771-9985

/206-101



# Item no.899-631/313-000

Distribution box; DALI; 1 input; 5 outputs; Cod. I; MIDI; black

www.wago.com/899-631/313-

000



### Item no.899-681/146-000

Distribution box; 230 V + DALI; 1 input; 7 outputs; Cod. I; MINI, MIDI

www.wago.com/899-681/146-

000

#### Required accessories

# **Locking levers**

Locking system



## Item no.: 770-121

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

www.wago.com/770-121

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Item no.: 770-131

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

www.wago.com/770-131



Item no.: 770-101

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

www.wago.com/770-101



Item no.: 770-111

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

www.wago.com/770-111

Strain relief

Strain relief housing



Item no.: 770-505/021-000

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; black

www.wago.com/770-505

/021-000



Item no.: 770-505/023-000

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black

www.wago.com/770-505

/023-000



Item no.: 770-505

Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black

www.wago.com/770-505



Item no.: 770-515

Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white

www.wago.com/770-515



Item no.: 770-515/023-000

Strain relief housing; 5-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white

www.wago.com/770-515

/023-000



Item no.: 770-515/021-000

Strain relief housing; 5-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; white

www.wago.com/770-515

/021-000

# Optional accessories

## Mounting

Snap-in frame



Item no.: 770-320

Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black

www.wago.com/770-320

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Item no.: 770-321

Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black

www.wago.com/770-321



Item no.: 770-340

Snap-in frame; 5-pole; 1.0 ... 3.0 mm; white

www.wago.com/770-340



Item no.: 770-341

Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white

www.wago.com/770-341

Cover

Cover



Item no.: 770-201

Lockout cap; 12-pole, separable; for sockets; Plastic; black

www.wago.com/770-201



Item no.: 770-221

Lockout cap; 12-pole, separable; for sockets; Plastic; white

www.wago.com/770-221



Item no.: 897-2005

Protective cap; Type4; for sockets and plugs; PVC; red

www.wago.com/897-2005

Marking accessories

Marker



Item no.: 770-450/000-002

Marker card; Plastic; yellow

www.wago.com/770-450

/000-002



Item no.: 770-450/000-001

Marker card; Plastic; green

www.wago.com/770-450

/000-001



Item no.: 770-450/000-005

Marker card; Plastic; red

www.wago.com/770-450

/000-005



Item no.: 770-450

Marker card; Plastic; white

www.wago.com/770-450

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Item no.: 770-450/000-006 Marker card; Plastic; blue www.wago.com/770-450 /000-006



Item no.: 770-450/000-012 Marker card; Plastic; orange www.wago.com/770-450 /000-012

Tool

Wiring aid



Item no.: 770-100

Wiring aid; 2- to 5-pole; Plastic; orange

www.wago.com/770-100

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

# Downloads Documentation

**Bid Text** 

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### CAD/CAE-Data

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2D/3D Models 770-1105 URL Download

**CAE** data

EPLAN Data Portal 770-1105 URL Download

WSCAD Universe 770-1105 URL Download

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# **Environmental Product Compliance**

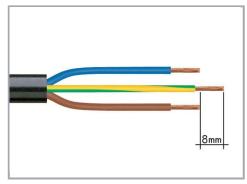
# Compliance Search

Environmental Product Compliance 770-1105 Socket; 5-pole; Cod. I; 4,00 mm²; blue URL

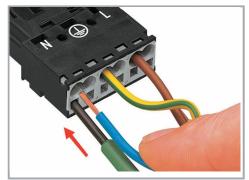
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## **Installation Notes**

#### Conductor termination



- 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.

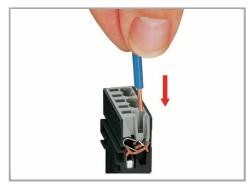
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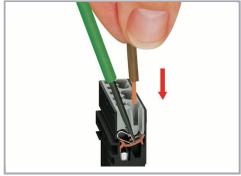
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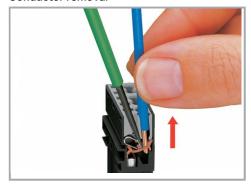


Insert the stripped solid conductor until it hits the backstop.



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



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

# Installation

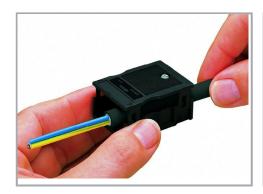
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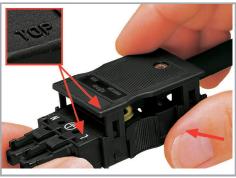
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We recommend pulling the pre-latched strain relief housing over the cable prior to termination. However, the strain relief can be mounted at a later time as well.



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 Show all products from the family

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