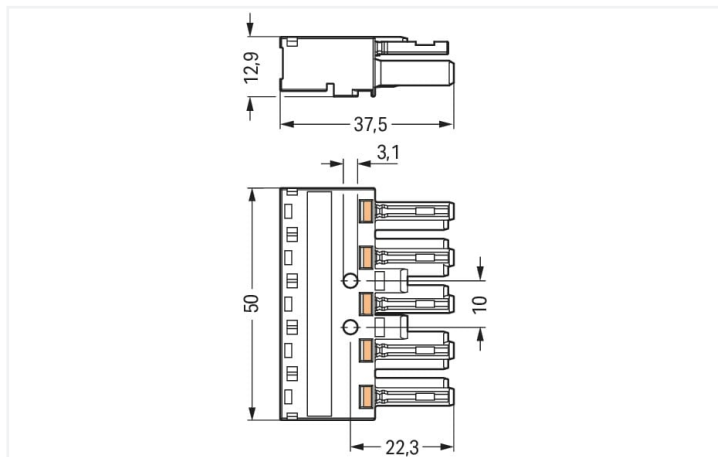




Color: ■ dark gray



Dimensions in mm

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

The **WINSTA®** MIDI female connector/socket 5-pole is the pluggable solution for your use in control cabinets, on PCBs or for lighting connections. Our pluggable installation connectors with spring pressure connection technology function completely without screw connections. They allow resource-efficient, error-free installation in a large number of possible uses. For greater security in electrical installations, the pluggable installation connector is equipped with mechanical protection against mismatching. 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!)). L coding identifies **WINSTA®** MIDI pluggable installation connectors for use in applications related to power supply in automation. This pluggable installation connector can be used for electrical currents up to 25 A. Thus the product is especially suitable for high power loads. The **WINSTA®** MIDI Pluggable Connection System with Push-in **CAGE CLAMP®** spring pressure connection technology facilitates precise electrification. Due to the built-in test slot, connections can be checked even when they are plugged in. That saves time and reduces installation labor and expense.

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

**WINSTA®** is the pluggable connection system that is perfectly tailored to the strict requirements of electrical installation. It ensures error-free installation of cables and components, quickly and reliably. Now you can also cut installation costs without compromising quality and safety: The **WINSTA®** MIDI pluggable installation connector with protection type IP20 reduces the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- pre-assembled versions
- with L coding for use in supplying power to power supply units or small servo motors
- custom-engineered solutions
- rapid, structured electrical installation

**Electrical data**

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	400 V	-	-
Rated surge voltage	6 kV	-	-
Rated current	25 A	-	-

Approvals per	UL 1977
Rated voltage	600 V
Rated current	23 A

**General information**

Note on contact resistance	approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/ socket
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## Connection data

Connection points	10	<b>Connection 1</b>	
Total number of potentials	5	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	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	Emergency power supply
Coding	L
Variable coding	No
Marking	N L N' L'
Potential marking	N L N' L'
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)	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)	<a href="https://www.wago.com/us/material-specifications">Information on material specifications can be found here</a>
Color	dark gray
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	0.303 MJ
Weight	15.7 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)	50 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821064381
Customs tariff number	85366990990

### Environmental Product Compliance

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

#### General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 61535	71-123228
CCA DEKRA Certification B.V.	IEC 61535	NL -84761
cURus Underwriters Laboratories Inc.	UL 1977	E45171
cURus Underwriters Laboratories Inc.	UL 1059	E 45172
VDE VDE Prüf- und Zertifizie- rungsinstitut	EN 61535	40029808

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

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1868589-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 770-1165

Documentation

Bid Text			
770-1165	19.02.2019	xml 2.94 KB	
770-1165	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAE data
WSCAD Universe 770-1165

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



**Item No.: 771-8985/206-103**  
pre-assembled connecting cable; Eca;  
Plug/open-ended; 5-pole; Cod. L; H05VV-  
F 5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; dark gray

**Item No.: 771-8985/006-103**  
pre-assembled interconnecting cable;  
Eca; Socket/plug; 5-pole; Cod. L; H05VV-F  
5G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; dark gray

### 1.1.2 Distribution connector



**Item No.: 770-7505**

Linect® T-connector; 5-pole; Cod. L; 1 input; 2 outputs; white

### 1.1.3 Male connector/plug



**Item No.: 770-1175**

Plug; 5-pole; Cod. L; 4,00 mm²; dark gray

## 1.2 Required Accessories

### 1.2.1 Locking system

#### 1.2.1.1 Locking system



**Item No.: 770-101**

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



**Item No.: 770-121**

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



**Item No.: 770-111**

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



**Item No.: 770-131**

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

### 1.2.2 Strain relief

#### 1.2.2.1 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



**Item No.: 770-515/021-000**

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



**Item No.: 770-505/023-000**

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



**Item No.: 770-515/023-000**

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



**Item No.: 770-505**

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



**Item No.: 770-515**

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

## 1.3 Optional Accessories

### 1.3.1 Cover

#### 1.3.1.1 Cover



**Item No.: 770-201**

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



**Item No.: 770-221**

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



**Item No.: 897-2005**

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

### 1.3.2 Installation

#### 1.3.2.1 Mounting accessories



**Item No.: 770-321**  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; black



**Item No.: 770-341**  
Snap-in frame; 5-pole; 0.5 ... 2.0 mm; white



**Item No.: 770-320**  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; black



**Item No.: 770-340**  
Snap-in frame; 5-pole; 1.0 ... 3.0 mm; white

### 1.3.3 Marking

#### 1.3.3.1 Marker



**Item No.: 770-450/000-006**  
Marker card; Plastic; blue



**Item No.: 770-450/000-001**  
Marker card; Plastic; green



**Item No.: 770-450/000-012**  
Marker card; Plastic; orange



**Item No.: 770-450/000-005**  
Marker card; Plastic; red



**Item No.: 770-450**  
Marker card; Plastic; white



**Item No.: 770-450/000-002**  
Marker card; Plastic; yellow

### 1.3.4 Tool

#### 1.3.4.1 Operating tool



**Item No.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

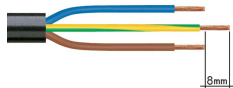
#### 1.3.4.2 Wiring aid



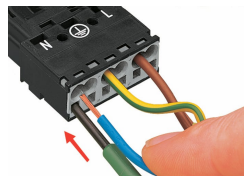
**Item No.: 770-100**  
Wiring aid; 2- to 5-pole; Plastic; orange

## Installation Notes

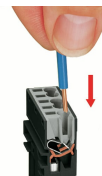
### Conductor termination



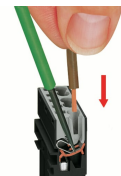
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

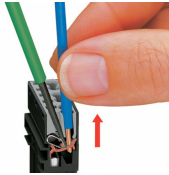


Insert the stripped solid conductor until it hits the backstop.



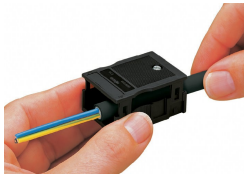
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

### Conductor removal



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

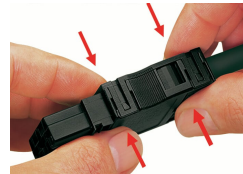
### Installation



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).