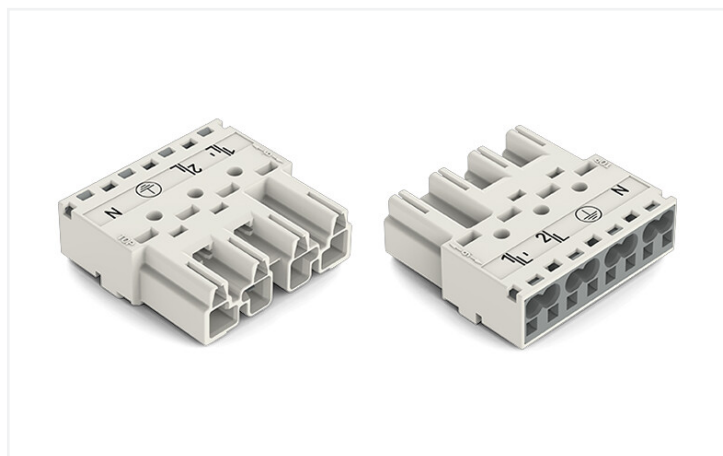


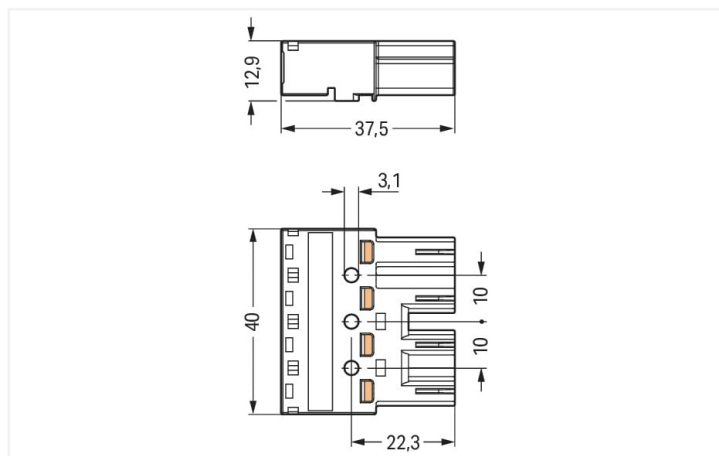
# Data Sheet | Item Number: 770-234

Plug; 4-pole; Cod. A; 4,00 mm<sup>2</sup>; white

<https://www.wago.com/770-234>



Color: ■ white



Dimensions in mm

## Male connector/plug WINSTA® MIDI with protection against mismatching

The WINSTA® MIDI male connector/plug rated current 25 A supports fast, reliable installation. On PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to establish connections according to various requirements in seconds. The coding options reduce installation errors, allowing fast, secure wiring of all components. 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!)). Standard mains applications for almost any domain of use can be implemented with WINSTA® MIDI pluggable installation connectors with A coding. This pluggable installation connector can be used for a current load of up to 25 A. Thus, it can also be used for high power loads. The WINSTA® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates safe electrification. Thanks to the included test slot, it is possible to check connections even when they are plugged in. This saves time, labor, and money.

Push-in CAGE CLAMP® spring pressure connection technology – pluggable installation instead of laborious screw connections!

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 lower installation expenses without compromising quality and safety: with protection against mismatching reduces the need for servicing and prevents unnecessary downtime.

- protection against mismatching eliminates errors
- pre-assembled versions
- with A coding for a great number of applications
- flexible installation to save space
- fast, secure installation

## Electrical data

Ratings per	IEC/EN 60664-1			Approvals per	UL 1977
Overvoltage category	III	III	II	Rated voltage	600 V
Pollution degree	3	2	2	Rated current	23 A
Nominal voltage	400 V	-	-		
Rated surge voltage	6 kV	-	-		
Rated current	25 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	8
Total number of potentials	4
PE function	Preceding PE contact

## 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	4
Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	10 mm / 0.394 inches
Width	40 mm / 1.575 inches
Height	12.9 mm / 0.508 inches
Depth	37.5 mm / 1.476 inches

## Mechanical data

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	1/L' 2/L N
Potential marking	1/L' 2/L N
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 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	white
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	0.251 MJ
Weight	12.9 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	4044918254595
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 61984	40002889

### 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 770-234

Documentation

Bid Text			
770-234	19.02.2019	xml 2.93 KB	
770-234	08.06.2015	doc 23.50 KB	

CAD/CAE-Data

CAD data
2D/3D Models 770-234

CAE data
EPLAN Data Portal 770-234
WSCAD Universe 770-234
ZUKEN Portal 770-234

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



**Item No.: 771-9994/106-102**  
pre-assembled connecting cable; Eca;  
Socket/open-ended; 4-pole; Cod. A;  
H05VV-F 4G 1.5 mm<sup>2</sup>; 1 m; 1,50 mm<sup>2</sup>; white

**Item No.: 771-9994/006-102**  
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

### 1.1.2 Distribution connector



**Item No.: 770-994**

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



**Item No.: 770-995**

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



**Item No.: 770-6224**

Linect® T-connector; 4-pole; Cod. A; 1 input; 2 outputs; white



**Item No.: 770-676**

T-distribution connector; 4-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white



**Item No.: 770-677**

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

### 1.1.3 Female connector/socket



**Item No.: 770-724**

Snap-in socket; 4-pole; Cod. A; 4,00 mm<sup>2</sup>; white



**Item No.: 770-724/009-000**

Snap-in socket; with protruding mating face; 4-pole; Cod. A; 4,00 mm<sup>2</sup>; white



**Item No.: 770-824/011-000**

Socket for PCBs; angled; 4-pole; Cod. A; white



**Item No.: 770-824**

Socket for PCBs; straight; 4-pole; Cod. A; white



**Item No.: 770-224**

Socket; 4-pole; Cod. A; 4,00 mm<sup>2</sup>; white



**Item No.: 770-124**

Socket; with strain relief housing; 4-pole; Cod. A; 4,00 mm<sup>2</sup>; white

## 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.: 770-504/023-000**

Strain relief housing; 4-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; black



**Item No.: 770-514/023-000**

Strain relief housing; 4-pole; for 2 cables; 5.0 ... 9.0 mm; 55 mm; white



**Item No.: 770-504**

Strain relief housing; 4-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; black



**Item No.: 770-514**

Strain relief housing; 4-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.: 770-360**

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



**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.: 770-319**

Snap-in frame; 4-pole; 1.0 ... 3.0 mm; black



**Item No.: 770-339**

Snap-in frame; 4-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 Strain relief

##### 1.3.4.1 Strain relief housing



**Item No.: 770-504/020-000**

Strain relief housing; 4-pole; for 1 cable; 11.5 ... 16.5 mm; 71 mm; black

#### 1.3.5 Tool

##### 1.3.5.1 Operating tool



**Item No.: 210-719**

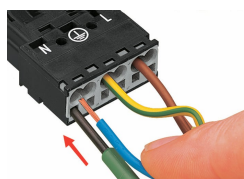
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

## Installation Notes

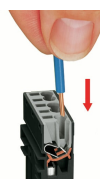
### Conductor termination



1. Strip length, outer insulation = 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.

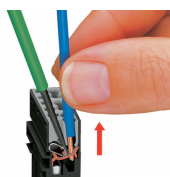


Insert the stripped solid conductor until it hits the backstop.



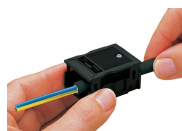
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

### Conductor removal

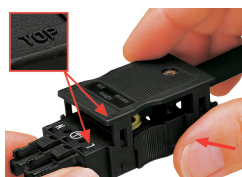


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

### 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).