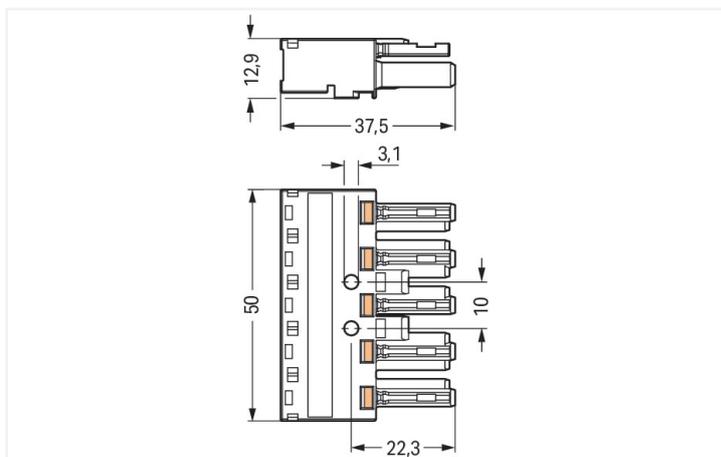




Color: ■ gray



Dimensions in mm

Female connector/socket WINSTA® MIDI 5-pole

For signal and power transmission: The WINSTA® MIDI female connector/socket with protection against mismatching. The pluggable installation connectors with spring pressure connection technology work without screw connections. They allow flexible, error-free installation in numerous applications. 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!)). B coding enables the WINSTA® MIDI pluggable installation connectors to be used for control in applications in the domains of automation, robotics, and mechanical engineering. This pluggable installation connector is used for electrical currents up to 25 A. Thus the product is especially suitable for high power loads. WINSTA® MIDI with Push-in CAGE CLAMP® spring pressure connection technology is used 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 allows pluggable electrical installation. This saves time, lowers costs, and reduces the need for servicing. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with marking from WAGO.

- effective protection against mismatching
- pre-assembled versions
- with B coding for controllers such as lighting fixtures and sun blinds
- custom-engineered solutions

- rapid, structured electrical installation

Notes

General safety information

NOTICE: Observe installation and safety instructions!

- Nur von Elektrofachkraft oder einer für die Tätigkeit elektrisch unterwiesenen Person (EUP nach DIN VDE 0105-100) anzuwenden!
- Nicht unter Spannung/Last installieren!
- Nur für bestimmungsgemäßen Gebrauch einsetzen!
- Nationale Vorschriften/Normen/Richtlinien beachten!
- Technische Daten der Produkte beachten!
- Auf die richtige Polbelegung achten!
- Keine beschädigten/verschmutzten Komponenten verwenden!
- Leiterarten, -querschnitte, Abisolierlängen und Leitungsdurchmesser beachten!
- Leiter bis zum Anschlag einführen!
- Nur mit Verriegelungsklinke und Zugentlastung verwenden!
- Originalzubehör verwenden!

To be sold only with installation instructions!

Variants:

Other pole markings

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Electrical data

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

Ratings per IEC/EN – Notes

Rated current (note)	25 A for 3-pole load 20 A for 4- and 5-pole load
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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

Clamping units	10
Total number of potentials	5

Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross-section	4 mm ² / 12 AWG
Solid conductor	0.5 ... 4 mm ² / 20 ... 12 AWG
Solid conductor; push-in termination	1.5 ... 4 mm ² / 16 ... 12 AWG
Stranded conductor	0.5 ... 2.5 mm ² / 20 ... 14 AWG
Fine-stranded conductor	0.5 ... 4 mm ² / 20 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ² / 20 ... 16 AWG
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ² / 20 ... 14 AWG
Fine-stranded conductor; with ferrule; push-in termination	1.5 mm ² / 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

Use	Control technology
Coding	B
Variable coding	Yes
Marking	1 2 3 4 5
Potential marking	1 2 3 4 5
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 <i>WINSTA</i> ® 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
Color	gray
Cover color	gray
Material group	I
Insulation material (main housing)	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	0.277 MJ
Weight	16 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)
PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4044918252454
Customs tariff number	85366990990

Product Classification

UNSPSC	39121409
eCl@ss 10.0	27-44-06-05
eCl@ss 9.0	27-44-06-05
ETIM 9.0	EC002560
ETIM 10.0	EC002560
ECCN	NO US CLASSIFICATION

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.	IEC 61984	NL-32104
CCA DEKRA Certification B.V.	EN 61984	2173495.01
cURus Underwriters Laboratories Inc.	UL 1977	E45171
cURus Underwriters Laboratories Inc.	UL 1059	E 45172

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	24-0095977-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 770-245



Documentation

Bid Text

770-245	19.02.2019	xml 2.96 KB	
770-245	08.06.2015	doc 24.00 KB	

CAD/CAE-Data

CAD data

2D/3D Models 770-245



CAE data

EPLAN Data Portal 770-245



WSCAD Universe 770-245



ZUKEN Portal 770-245



1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9995/205-103

pre-assembled connecting cable; Eca; Plug/open-ended; 5-pole; Cod. B; (H) 05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray



Item No.: 771-9995/005-103

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. B; (H)05VV-F 5x1,0 mm²; 1 m; 1,00 mm²; gray

1.1.2 Distribution connector



Item No.: 770-1744

3-way distribution connector; 5-pole; Cod. B; 1 input; 3 outputs; gray



Item No.: 770-1641

T-distribution connector; 5-pole; Cod. B; 1 input; 2 outputs; 2 locking levers; gray



Item No.: 770-1741

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

1.1.3 Male connector/plug



Item No.: 770-855/011-000

Plug for PCBs; angled; 5-pole; Cod. B; gray

Item No.: 770-855

Plug for PCBs; straight; 5-pole; Cod. B; gray

Item No.: 770-255

Plug; 5-pole; Cod. B; 4,00 mm²; gray

Item No.: 770-755

Snap-in plug; 5-pole; Cod. B; 4,00 mm²; 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

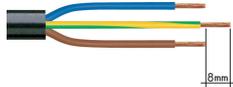
1.3.4.1 Operating tool



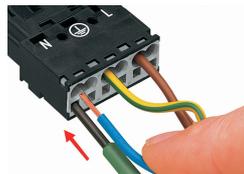
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

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.

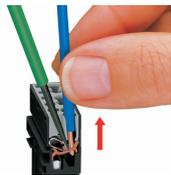


Insert the stripped solid conductor until it hits the backstop.



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

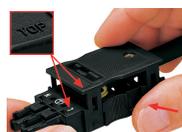


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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).

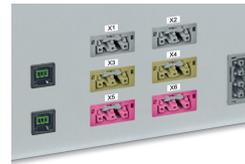
Coding



Simply cut off the coding pin from the socket.

Insert coding pin into plug (break first) until it engages.

Mismatching protection



B-coded connectors with different colors can be plugged together.

B-coded connectors (shown in gray) not only differ in color, but also in their design, making them incompatible with other coded connectors.

Easy circuit identification via different marking and colors

Important note:
Different colors and/or pole markings are used for circuit identification.
Only connectors of the same color and same pole marking must be plugged together.