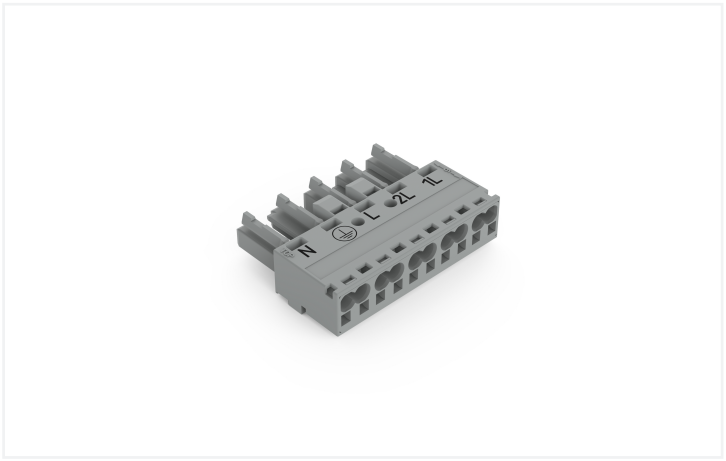
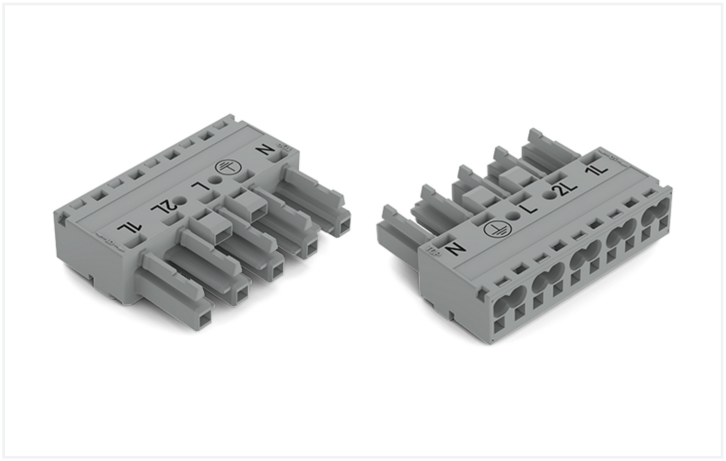
Data Sheet | Item Number: 770-245/064-000

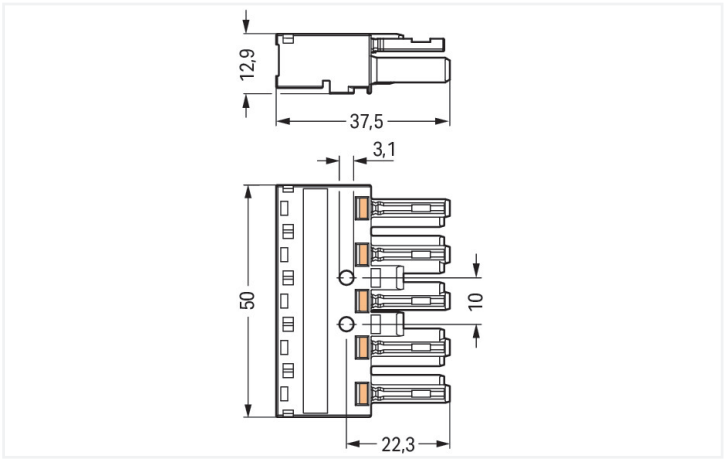
Socket; 5-pole; Cod. B; 4,00 mm²; gray

https://www.wago.com/770-245/064-000



Color: gray





Dimensions in mm

Female connector/socket *WINSTA*® MIDI with protection against mismating

The *WINSTA*® MIDI female connector/socket with protection type IP20 provides the foundation for installation of fine-stranded and solid conductors. WAGO pluggable installation connectors are useful when specifications repeat or are distributed on a specified grid, for example for installing grid lighting or flush-mount lighting. The color coding and mechanical coding of the pluggable installation connector ensure error-free installation of the individual components – including protection against mismating. 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 application control in the domains of automation, robotics, and mechanical engineering. Important parameters in the selection of a pluggable installation connector are the rated current and voltage: They provide information about possible domains of use and applications. This product has a current rating of 25 A – so it is also suitable for robust loads. The *WINSTA*® MIDI product line guarantees total flexibility for the installation of applications. With its Push-in CAGE CLAMP® spring pressure connection technology, it achieves time-saving, error-free installation and offers flexibility for meeting various installation requirements.

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 allows fast, secure and, above all, error-free installation of components and cables. Now you can also lower installation costs without compromising safety and quality: with marking reduces the need for servicing and prevents unnecessary downtime.

- pluggable installation connectors with protection against mismating
- for automation controllers
- with B coding for use in automation of processes, such as lighting technology, for instance

- ready to install and use immediately
- 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

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

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 mm² / 12 AWG
Solid conductor	0.5 … 4 mm² / 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

Use	Control technology
Coding	B
Variable coding	Yes
Marking	N ⏚ L 2L 1L
Potential marking	N ⏚ L 2L 1L
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)	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

Continued on next page

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

PU (SPU)	50 pcs
Packaging type	Box
Country of origin	PL
GTIN	4050821486268
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

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
cURus Underwriters Laboratories Inc.	UL 1977	E45171
cURus Underwriters Laboratories Inc.	UL 1059	E 45172

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 770-245/064-000

Documentation

Bid Text

770-245/064-000	19.02.2019	xml 2.97 KB
770-245/064-000	08.06.2015	doc 24.00 KB

CAD/CAE-Data

CAD data

2D/3D Models
770-245/064-000

CAE data

WSCAD Universe
770-245/064-000

ZUKEN Portal
770-245/064-000

1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug

Item No.: 770-855/011-000/064-000
Plug for PCBs; angled; 5-pole; Cod. B; gray

Item No.: 770-855/064-000
Plug for PCBs; straight; 5-pole; Cod. B; gray

Item No.: 770-255/064-000
Plug; 5-pole; Cod. B; 4,00 mm²; gray

Item No.: 770-755/064-000
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

 Continued on next page

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

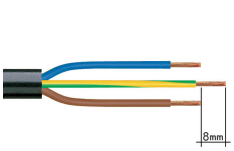
1.3.4 Tool

1.3.4.1 Operating tool

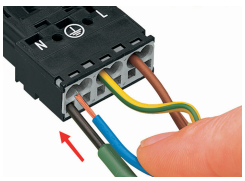
Item No.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

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.

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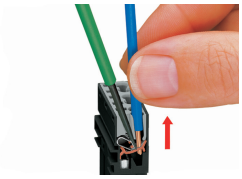
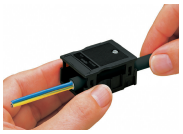
Conductor removal



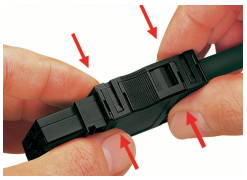
To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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.

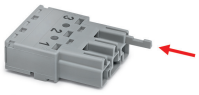


Prepare strain relief housing by snapping together upper and bottom part.

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

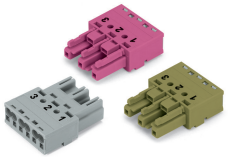
Coding

Simply cut off the coding pin from the socket.



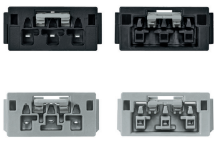
Insert coding pin into plug (break first) until it engages.

Mismatching protection



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

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.



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