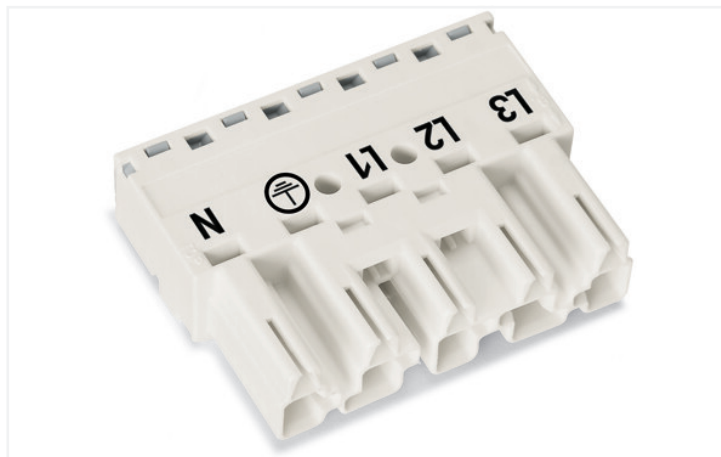


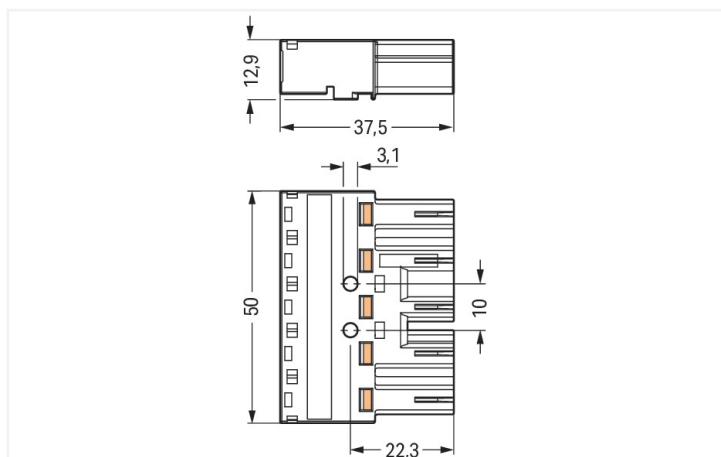
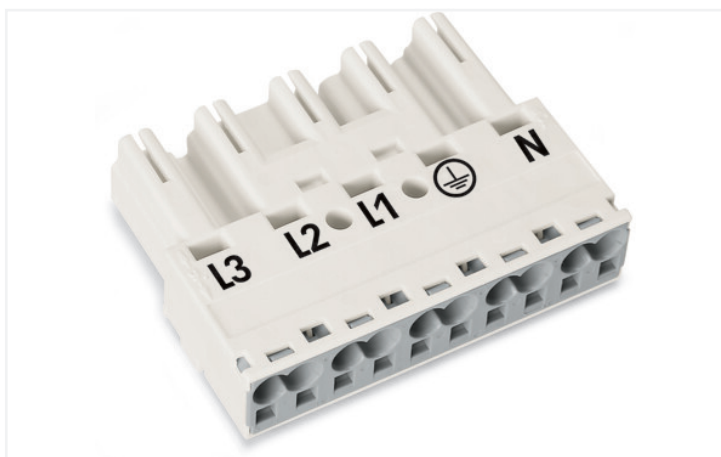
Data Sheet | Item Number: 770-235

Plug; 5-pole; Cod. A; 4,00 mm²; white

<https://www.wago.com/770-235>



Color: ■ white



Dimensions in mm

Male connector/plug *WINSTA*® MIDI rated current 25 A

The *WINSTA*® MIDI male connector/plug with protection against mismatching provides the foundation for assembly of fine-stranded and solid conductors. Whether on PCBs, in control cabinets or for connecting lights – pluggable installation connectors from WAGO allow you to make 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!)). General mains applications for almost any domain of use can be realised with *WINSTA*® MIDI pluggable installation connectors with A coding. 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 product line offers flexibility for the electrical installation. Through its Push-in CAGE CLAMP® spring pressure connection technology, it ensures error-free, time-saving installation and offers customization and flexibility for meeting various installation requirements.

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

The *WINSTA*® Pluggable Connection System is ideally tailored to the strict requirements of building installation. It makes electrical installation pluggable, and thus more efficient, even more reliable, and error-free. Using this pre-assembled system decreases assembly times and errors during installation at the construction site. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection against mismatching from WAGO.

- protection against mismatching eliminates errors
- pre-assembled versions
- for any mains application
- ready to install and use immediately
- convenient installation and commissioning

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	10	Connection 1	
Total number of potentials	5	Connection technology	Push-in CAGE CLAMP®
PE function	Preceding PE contact	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

Application	General mains applications
Coding	A
Variable coding	Yes
Marking	L3 L2 L1 N
Potential marking	L3 L2 L1 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)	Information on material specifications can be found here
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	0.385 MJ
Weight	16.3 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	4044918254601
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**



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 Zertifizierungsinstitut	EN 61984	40002889

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

Approvals for marine applications



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

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 770-235	↓

Documentation

Bid Text			
770-235	19.02.2019	xml 2.93 KB	↓
770-235	08.06.2015	doc 23.50 KB	↓

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 770-235 ↓	EPLAN Data Portal 770-235 ↓
	WSCAD Universe 770-235 ↓
	ZUKEN Portal 770-235 ↓

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9995/106-102

pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; white

Item No.: 771-9995/006-102

pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; white

1.1.2 Distribution box



Item No.: 899-681/100-000

Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MID; white

1.1.3 Distribution connector



Item No.: 770-6225

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



Item No.: 770-671

T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; white



Item No.: 770-672

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



Item No.: 770-661

Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 2 outputs; with cable connection on the input side; white



Item No.: 770-690

Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; white

1.1.4 Female connector/socket



Item No.: 770-725
Snap-in socket; 5-pole; Cod. A; 4,00 mm²; white



Item No.: 770-725/009-000
Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm²; white



Item No.: 770-825/011-000
Socket for PCBs; angled; 5-pole; Cod. A; white



Item No.: 770-825
Socket for PCBs; straight; 5-pole; Cod. A; white



Item No.: 770-225
Socket; 5-pole; Cod. A; 4,00 mm²; white



Item No.: 770-425
Socket; 5-pole; Cod. A; 4,00 mm²; white



Item No.: 770-125
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; white



Item No.: 770-325
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; 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.: 770-505/021-000
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 Coding

1.3.1.1 Coding



Item No.: 770-401
Coding pin; for plugs; Plastic; gray

1.3.2 Cover

1.3.2.1 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

1.3.3 Installation

1.3.3.1 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

1.3.4 Marking

1.3.4.1 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

1.3.5 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

1.3.5.2 Wiring aid



Item No.: 770-100

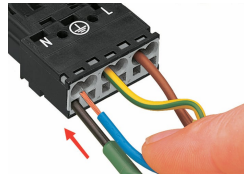
Wiring aid; 2- to 5-pole; Plastic; orange

Installation Notes

Conductor termination



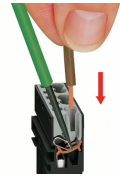
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)
2. Strip length = 9 mm
3. Extended ground conductor = 8 mm



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.

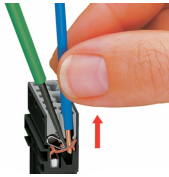


Insert the stripped solid conductor until it hits the backstop.



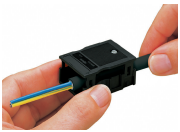
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal



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

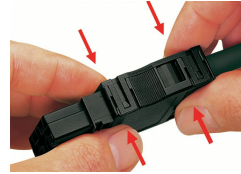
Installation



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).