

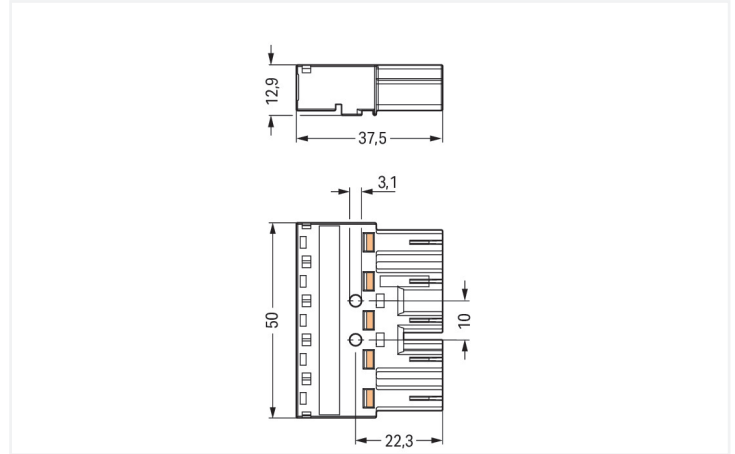
Data Sheet | Item Number: 770-415

Plug; 5-pole; Cod. A; 4,00 mm²; black

<https://www.wago.com/770-415>



Color: ■ black



Dimensions in mm

Male connector/plug WINSTA® MIDI 5-pole

For signal and power transmission: The WINSTA® MIDI male connector/plug with protection type IP20. The pluggable installation connectors with spring pressure connection technology function entirely without screw connections. They allow fast, 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 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!)). General 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 employed for a current load of up to 25 A. As a result, it can also be used for high power loads. Our WINSTA® MIDI product line achieves maximum flexibility for the installation of applications. With its Push-in CAGE CLAMP® spring pressure connection technology, it guarantees time-saving, error-free installation and offers flexibility and customization for meeting various installation requirements.

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

The WINSTA® Pluggable Connection System allows pluggable electrical installation. This significantly reduces the need for servicing and lowers costs. Take advantage of the pluggable version of our maintenance-free spring pressure connection technology too! Plan your installation with with protection type IP20 from WAGO.

- effective protection against mismating
- pre-assembled versions
- for any mains application
- exact dimensions
- quick replacement of defective units during ongoing operation

Notes

General safety information

1. Only to be used by a qualified electrician or by a person electrically instructed for the task (EIP per DIN VDE 0105-100).
2. Do not install while energized or under load.
3. Use only for its intended purpose.
4. Observe applicable national regulations, standards and directives.
5. Observe the technical specifications of the products.
6. Ensure correct polarity assignment.
7. Do not use damaged or contaminated components.
8. Observe conductor types, conductor cross-sections, strip lengths and cable diameters.
9. Insert conductors up to the stop.
10. Use only with locking lever and strain relief.
11. Use original accessories only.

To be sold only with installation instructions!



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 impulse withstand 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

Connection Data

Clamping units	5	Connection 1
Total number of potentials	5	
PE function	Preceding PE contact	

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	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	black
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	0.296 MJ
Weight	16.8 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	4044918254717
Customs tariff number	85366990990

Product Classification	
UNSPSC	39121402
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		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						
		<table><tr><th>Approval</th><th>Standard</th><th>Certificate Name</th></tr><tr><td>EU-Declaration of Conformity WAGO GmbH & Co. KG</td><td>-</td><td>-</td></tr></table>	Approval	Standard	Certificate Name	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
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	-	24-0095977-PDA
DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
LR Lloyds Register	IEC 61984	LR22429487TA

Downloads

Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 770-415	



Documentation

Bid Text			
770-415	19.02.2019	xml 2.96 KB	↓
770-415	08.06.2015	doc 23.50 KB	↓

CAD/CAE-Data

CAD data		CAE data	
2D/3D Models 770-415	↓	EPLAN Data Portal 770-415	↓
		WSCAD Universe 770-415	↓
		ZUKEN Portal 770-415	↓

1 Compatible Products

1.1 System counterpart

1.1.1 Cable assembly



Item No.: 771-9995/106-101
pre-assembled connecting cable; Eca; Socket/open-ended; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black



Item No.: 771-9995/006-101
pre-assembled interconnecting cable; Eca; Socket/plug; 5-pole; Cod. A; H05VV-F 5G 1.5 mm²; 1 m; 1,50 mm²; black

1.1.2 Distribution box



Item No.: 899-631/187-000
Distribution box; Three-phase current (400 V); 1 input; 5 outputs; Cod. A; MIDI; black



Item No.: 899-631/346-000
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 4 outputs; Cod. A; MIDI; black



Item No.: 899-631/100-000
Distribution box; Three-phase to single-phase current (400 V/230 V); 1 input; 7 outputs; Cod. A; MIDI; black

1.1.3 Distribution connector



Item No.: 770-609
3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; black



Item No.: 770-659
3-way distribution connector; 5-pole; Cod. A; 1 input; 3 outputs; white



Item No.: 770-621
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 2 locking levers; black



Item No.: 770-622
T-distribution connector; 5-pole; Cod. A; 1 input; 2 outputs; 3 locking levers; for flying leads; black



Item No.: 770-611
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; black



Item No.: 770-612
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; black

Item No.: 770-640
Three-phase to single-phase distribution connector; with phase selection; 5-pole/3-pole; Cod. A; 1 input; 5 outputs; black



1.1.4 Female connector/socket



Item No.: 770-705
Snap-in socket; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-705/009-000
Snap-in socket; with protruding mating face; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-805/011-000
Socket for PCBs; angled; 5-pole; Cod. A; black



Item No.: 770-805
Socket for PCBs; straight; 5-pole; Cod. A; black



Item No.: 770-205
Socket; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-405
Socket; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-105
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black



Item No.: 770-305
Socket; with strain relief housing; 5-pole; Cod. A; 4,00 mm²; black

1.1.5 Tap-off module



Item No.: 772-262
Tap-off module; for flat cable; 5 x 2.5 mm² + 2 x 1.5 mm²; 5-pole; Cod. A; with cable connection on the output side; black

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

1.3 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



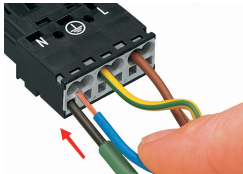
Item No.: 770-100
Wiring aid; 2- to 5-pole; Plastic; orange

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.

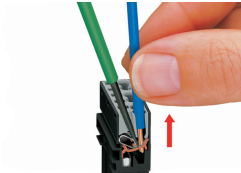


Insert the stripped solid conductor until it hits the backstop.



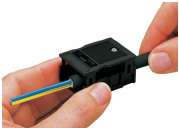
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

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).