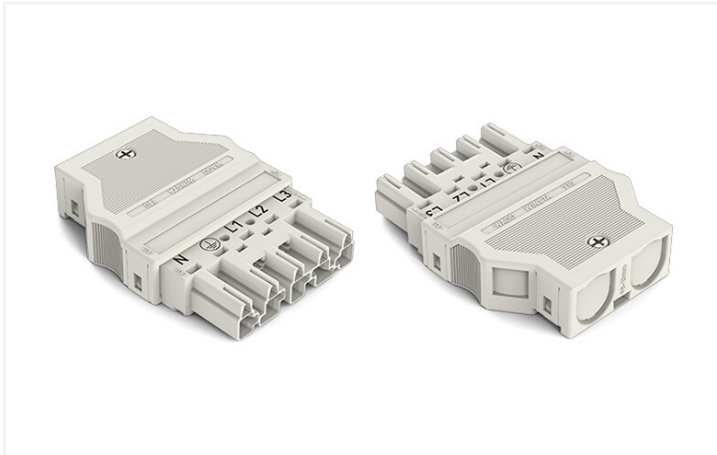


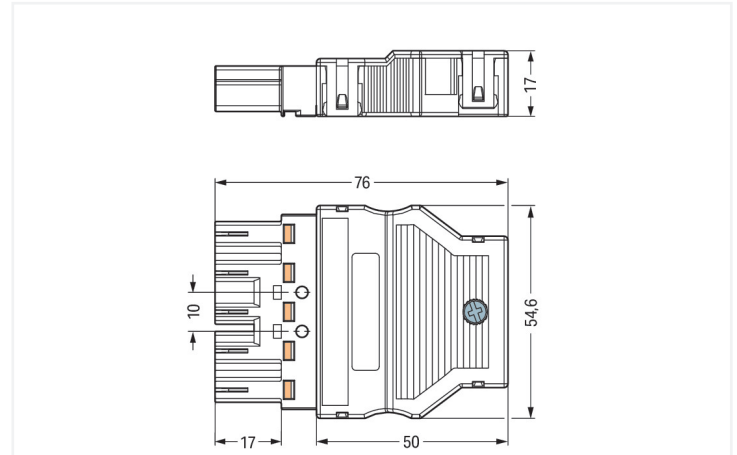
## Data Sheet | Item Number: 770-135

Plug; with strain relief housing; 5-pole; Cod. A; 4,00 mm<sup>2</sup>; white

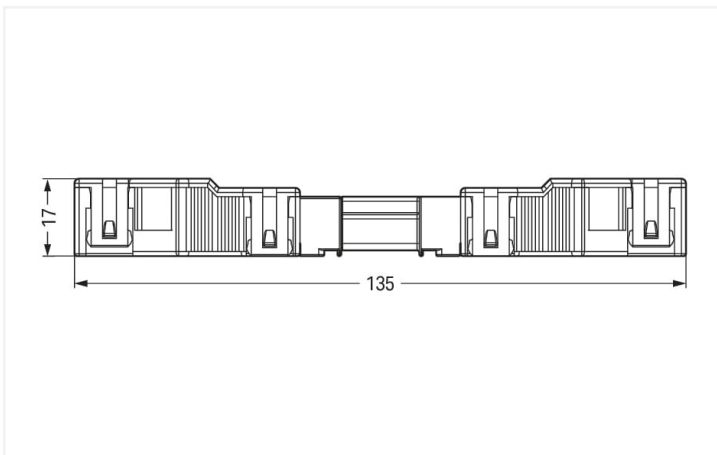
<https://www.wago.com/770-135>



Color:   white



Dimensions in mm



Dimensions in mm

Overall length when mated

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

Use effective pluggable connections instead of laborious screw connections: With the WINSTA® MIDI male connector/plug with protection against mismating. 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 next to no time. For greater security in electrical installations, the pluggable installation connector is provided with mechanical protection against mismating. The pluggable installation connector offers protection against contact 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!)). Thanks to the color coding and mechanical A coding of WINSTA® MIDI pluggable installation connectors, you can clearly distinguish different circuits. This pluggable installation connector can be used for electrical currents up to 25 A. Thus the product is ideally suitable for high power loads. The WINSTA® MIDI Pluggable Connection System with Push-in CAGE CLAMP® spring pressure connection technology facilitates precise electrification. Due to the integrated test slot, connections can be checked even when they are plugged in. This saves time, labor, and money. The strip length is 55 mm.

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

The WINSTA® Pluggable Connection System is perfectly tailored to the strict requirements of building installation. It makes electrical installation pluggable, and consequently faster, more reliable, and error-free. Using this pre-assembled system reduces assembly times and installation errors at the construction site. Now you can also cut installation expenses without compromising safety and quality: The WINSTA® MIDI pluggable installation connector with protection against mismating eliminates the need for servicing and prevents unnecessary downtime.

- protection against mismating eliminates errors
- simple circuits
- suitable for any application
- custom-engineered solutions
- quick replacement of defective units during ongoing operation



This item includes:



|                                                                            |   |                                                    |   |
|----------------------------------------------------------------------------|---|----------------------------------------------------|---|
| Item No.: 770-515                                                          | 1 | Item No.: 770-235                                  | 1 |
| Strain relief housing; 5-pole; for 2 cables; 9.0 ... 13.0 mm; 55 mm; white |   | Plug; 5-pole; Cod. A; 4,00 mm <sup>2</sup> ; white |   |

Electrical data

| Ratings per IEC/EN            |                                                                  | Ratings per UL 1977     |                                                                                                                                                                                                                                          |
|-------------------------------|------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ratings per                   | IEC/EN 60664-1                                                   | Note for the US market  | Some versions may also be used for current interruption in accordance with the UL certificate in select applications with currents below 16 A and voltages up to 600 V. For further information, please contact your local sales office. |
| Nominal voltage (III/3)       | 400 V                                                            |                         |                                                                                                                                                                                                                                          |
| Rated impulse voltage (III/3) | 6 kV                                                             |                         |                                                                                                                                                                                                                                          |
| Rated current                 | 25 A                                                             |                         |                                                                                                                                                                                                                                          |
| Legend (ratings)              | (III / 3) $\Delta$ Overvoltage category III / Pollution degree 3 | Rated voltage (UL 1977) | 600 V                                                                                                                                                                                                                                    |
|                               |                                                                  | Rated current UL 1977   | 23 A                                                                                                                                                                                                                                     |

General

|                            |                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------|
| Note on contact resistance | approx. 1 m $\Omega$ of contact resistance<br>approx. 0.25 m $\Omega$ contact transition plug/ socket |
|----------------------------|-------------------------------------------------------------------------------------------------------|

Connection data

| Connection data            |                      | Connection 1                                               |                                              |
|----------------------------|----------------------|------------------------------------------------------------|----------------------------------------------|
| Connection points          | 10                   | Connection technology                                      | Push-in CAGE CLAMP®                          |
| Total number of potentials | 5                    | Actuation type                                             | Operating tool<br>Push-in                    |
| PE function                | Preceding PE contact | 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                                                | 5                                            |
|                            |                      | Connectable sheathed cable diameter                        | 9 ... 13 mm                                  |
|                            |                      | Conductor entry direction to mating direction              | 0°                                           |
|                            |                      | Strip length (outer insulation)                            | 55 mm                                        |

## Physical data

|             |                        |
|-------------|------------------------|
| Pin spacing | 10 mm / 0.394 inches   |
| Width       | 54.6 mm / 2.15 inches  |
| Height      | 17 mm / 0.669 inches   |
| Depth       | 75.9 mm / 2.988 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 <i>W/INSTA</i> ® components are 100% protected against mismating when:<br>a.) plugging different numbers of poles<br>b.) plugging while rotated 180<br>c.) plugging while laterally staggered<br>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). |
| Strain relief                      | Strain relief housing                                                                                                                                                                                                                                                                                            |

## 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                   | 0.716 MJ                                                                 |
| Weight                      | 29.5 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)              | 25 pcs        |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4044918254502 |
| Customs tariff number | 85366990990   |

Approvals / Certificates

General approvals



| Approval                                     | Standard  | Certificate Name |
|----------------------------------------------|-----------|------------------|
| CCA<br>DEKRA Certification B.V.              | EN 61535  | 71-123228        |
| CCA<br>DEKRA Certification B.V.              | IEC 61535 | NL -84761        |
| cURus<br>Underwriters Laboratories Inc.      | UL 1977   | E45171           |
| VDE<br>VDE Prüf- und Zertifizierungsinstitut | EN 61984  | 40002889         |
| VDE<br>VDE Prüf- und Zertifizierungsinstitut | EN 61535  | 40029808         |

Approvals for marine applications



| Approval                                              | Standard  | Certificate Name |
|-------------------------------------------------------|-----------|------------------|
| ABS<br>American Bureau of Ship-<br>ping               | -         | 19-HG1868589-PDA |
| DNV GL<br>Det Norske Veritas, Ger-<br>manischer Lloyd | -         | TAE00001Z6       |
| LR<br>Lloyds Register                                 | IEC 61984 | LR22429487TA     |

Downloads

Environmental Product Compliance

| Compliance Search                           |
|---------------------------------------------|
| Environmental Product<br>Compliance 770-135 |



Documentation



| Bid Text                   |            |                 |                   |
|----------------------------|------------|-----------------|-------------------|
| 770-135                    | 19.02.2019 | xml<br>3.01 KB  | <a href="#">↓</a> |
| 770-135                    | 08.06.2015 | doc<br>23.50 KB | <a href="#">↓</a> |
| ausschreiben.de<br>770-135 |            |                 | <a href="#">↓</a> |

| CAD/CAE-Data         |                           |
|----------------------|---------------------------|
| CAD data             | CAE data                  |
| 2D/3D Models 770-135 | EPLAN Data Portal 770-135 |
| <a href="#">↓</a>    | <a href="#">↓</a>         |
|                      | WSCAD Universe 770-135    |
|                      | <a href="#">↓</a>         |
|                      | ZUKEN Portal 770-135      |
|                      | <a href="#">↓</a>         |

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; MIDI; 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

1.3 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 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

1.3.4.2 Wiring aid



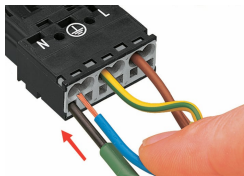
Item No.: 770-100  
Wiring aid; 2- to 5-pole; Plastic; orange

Installation Notes

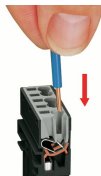
Conductor termination



- 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.

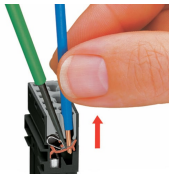


Insert the stripped solid conductor until it hits the backstop.



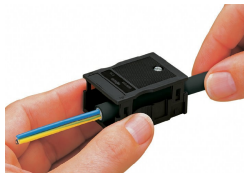
To terminate fine-stranded conductors, open the clamping unit via screwdriver (2.5 mm blade width) and insert a stripped conductor until it hits the backstop.

Conductor removal

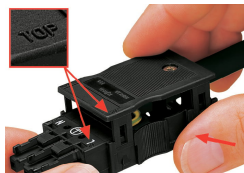


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

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).