

Item description

- Protected against mismatching and maintenance-free
- Push-in CAGE CLAMP® spring pressure connection technology allows solid conductors to be simply pushed into a unit
- Two-wire connection per pole for loops or bridges
- Components can be clearly printed on and color-coded to meet custom requirements

Note:

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).

Note on mismatching protection:

All WINSTA® components are 100% protected against mismatching when:

- a.) plugging different numbers of poles
- b.) plugging while rotated 180
- c.) plugging while laterally staggered
- d.) plugging one pole

Subject to changes. Please also observe the further product documentation!

**Safety information 1:**

Application note for the U.S. market (USR): 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.

Data**Electrical data**

Note on Contact Resistance

approx. 1 mΩ of contact resistance approx. 0.25 mΩ contact transition plug/socket

Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60664-1
Rated voltage (III / 3)	250 V
Rated impulse voltage (III / 3)	4 kV
Rated current	25 A
Legend (ratings)	(III / 3) ≙ Overvoltage category III / Pollution degree 3

Approvals per UL 1977

Rated voltage per UL 1977 (factory wiring only)	600 V
Rated current per UL 1977 (factory wiring only)	23 A

Connection data

Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool Push-in
Nominal cross section	4 mm²
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 ferrule with plastic collar	0,25 ... 1,5 mm² / 20 ... 16 AWG
Fine-stranded conductor with ferrule without plastic collar	0,25 ... 2,5 mm² / 20 ... 14 AWG
Fine-stranded conductor with ferrule, push-in termination, from	1,5 mm² / 16 AWG
Strip length	9 mm / 0.35 inch
Note (strip length)	see also packaging or instructions
No. of poles	2
Total number of connection points	4
Total number of potentials	2

Subject to changes. Please also observe the further product documentation!

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Conductor entry direction to mating direction

0°

Geometrical Data

Pin spacing	10 mm / 0.394 inch
Width	20 mm / 0.787 inch
Height	12,9 mm / 0.508 inch
Depth	37,5 mm / 1.476 inch

Mechanical data

Coding	B
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 100, with resistive load $I_N = 25$ A, tested (4 mm ² /AWG 12)
Marking	1 2
Protection class	IP20
Note on protection class	In mated condition with strain relief housing: IP2xC (These compact connectors are not designed for use in open, easily accessible areas.)
Potential marking	1 2

Plug connection

Contact type (pluggable connector)	Female connector/socket
Connector connection type	for conductor
Mismating protection	Yes
Locking of plug-in connection	locking lever
Locking lever	retrofittable

Material Data

Color	pink
Insulating material	Polyamide 66 (PA 66)
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Copper or copper alloy (surface-treated)

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Fire load	0.114 MJ
Weight	6.6 g

Environmental Requirements


Processing temperature	-5 ... +40 °C
Continuous operating temperature	-35 ... +85 °C
Note on Continuous Service Temperature	Insulating parts for temperatures ≤ 105 °C

Commercial data




Product Group	20 (WINSTA)
Packaging type	BOX
Country of origin	DE
GTIN	4050821541905
Customs Tariff No.	85366990990

Approvals / Certificates

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCA DEKRA Certification B.V.	EN 61984	2173495.01

Ship Approvals


Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1868589- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE00001Z6
	LR Lloyds Register	IEC 61984	02/20050 (E6)

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UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	cURus Underwriters Laboratories Inc.	UL 1977	E45171 Sec. 9

Counterpart

**Item no.770-1603**

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

www.wago.com/770-1603**Item no.770-1610**

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 2 locking levers; pink

www.wago.com/770-1610**Item no.770-1653**

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 2 locking levers; pink

www.wago.com/770-1653**Item no.770-1703**

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

www.wago.com/770-1703**Item no.770-1706**

3-way distribution connector; 2-pole; Cod. B; 1 input; 3 outputs; pink

www.wago.com/770-1706**Item no.770-1660**

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on both sides; 3 locking levers; for flying leads; pink

www.wago.com/770-1660**Item no.770-1753**

h-distribution connector; 2-pole; Cod. B; 1 input; 2 outputs; outputs on one side; 3 locking levers; for flying leads; pink

www.wago.com/770-1753**Item no.770-292**

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Plug; 2-pole; Cod. B; 4,00 mm²; pink

www.wago.com/770-292



Item no. 771-8992/005-107

pre-assembled interconnecting cable; Eca; Socket/plug; 2-pole; Cod. B; Control cable 2 x 1.0 mm²; 1 m; 1,00 mm²; pink

www.wago.com/771-8992/005-107



Item no. 771-8992/205-107

pre-assembled connecting cable; Eca; Plug/open-ended; 2-pole; Cod. B; Control cable 2 x 1.0 mm²; 1 m; 1,00 mm²; pink

www.wago.com/771-8992/205-107

Compatible products

Locking lever



Item no.: 770-101

Locking lever; for flying leads; for manual operation; black

www.wago.com/770-101



Item no.: 770-111

Locking lever; for flying leads; for tool operation; black

www.wago.com/770-111



Item no.: 770-121

Locking lever; for flying leads; for manual operation; white

www.wago.com/770-121



Item no.: 770-131

Locking lever; for flying leads; for tool operation; white

www.wago.com/770-131

Strain relief plate



Item no.: 770-502/041-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; black

www.wago.com/770-502/041-000



Item no.: 770-502/042-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; black

www.wago.com/770-502/042-000



Item no.: 770-512/041-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 7.0 ... 10.5 mm; 35 mm; white

www.wago.com/770-512/041-000



Item no.: 770-512/042-000

Strain relief housing; 2-pole; with locking clip; for 1 cable; 5.0 ... 9.0 mm; 35 mm; white

www.wago.com/770-512/042-000

General accessories



Item no.: 770-317

Snap-in frame; 2-pole; 0.5 ... 2.0 mm; black

www.wago.com/770-317

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**Item no.: 770-337**

Snap-in frame; 2-pole; 0.5 ... 2.0 mm; black

www.wago.com/770-337**tools****Item no.: 210-719**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

www.wago.com/210-719**Item no.: 770-382**

Operating tool; 2-way; green

www.wago.com/770-382**protection****Item no.: 770-201**

Lockout cap; 12-pole, separable; 12-pole; for sockets; black

www.wago.com/770-201**Item no.: 770-221**

Lockout cap; for socket; 12-pole; separable; white

www.wago.com/770-221**Downloads****Documentation****Bid Text**

770-282	Jun 8, 2015	doc	Download
doc - Datei		24.6 kB	
770-282	Feb 19, 2019	xml	Download
GAEB X81 - Datei		3.0 kB	

CAD/CAE-Data**CAD data**

2D/3D Models 770-282	URL	Download
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CAE data

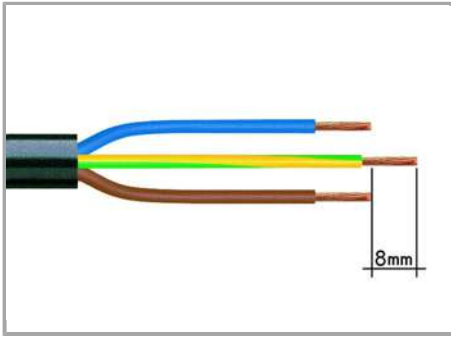
EPLAN Data Portal 770-282	URL	Download
WSCAD Universe 770-282	URL	Download

Installation Notes**Conductor termination**

Subject to changes. Please also observe the further product documentation!

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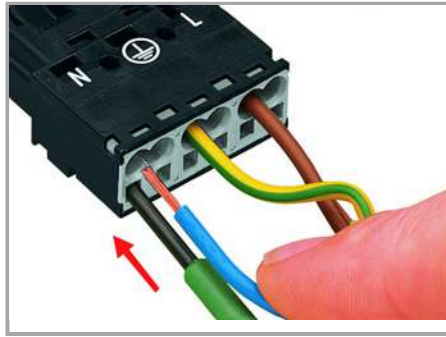
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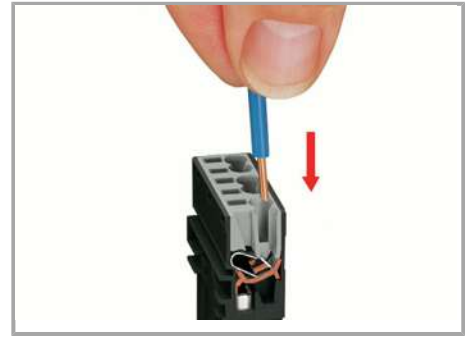
1. Strip length, outer insulation = 35 mm (2-pole), 55 mm (3- to 5-pole)

2. Strip length = 9 mm

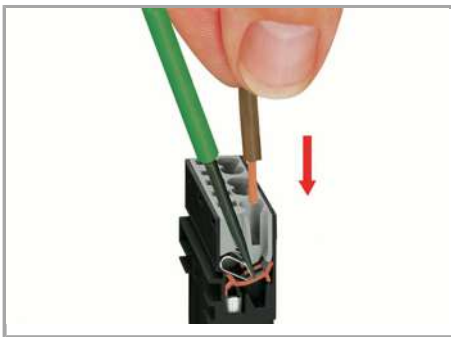
3. Extended ground conductor = 8 mm



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



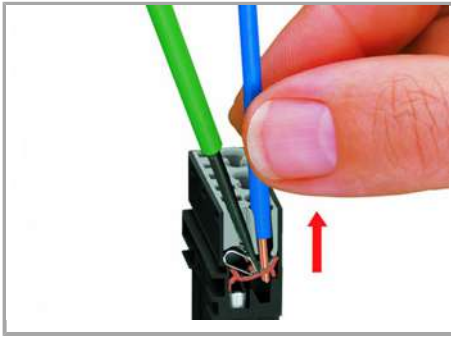
Insert stripped solid conductor until it hits backstop.



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

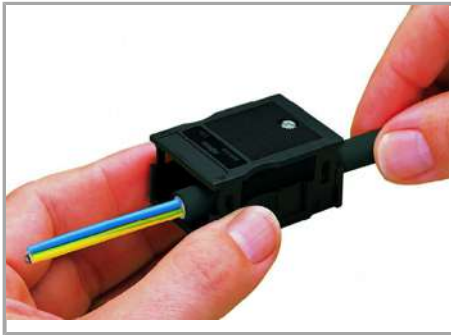
Conductor removal

Subject to changes. Please also observe the further product documentation!

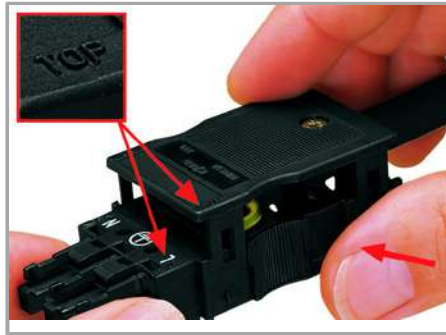


To remove the conductor, actuate the clamp via screwdriver (2.5 mm blade width) and pull out the conductor.

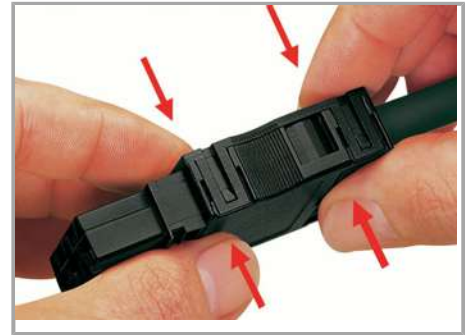
Installation



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 on the plug /socket. Note the "TOP" inscription.



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



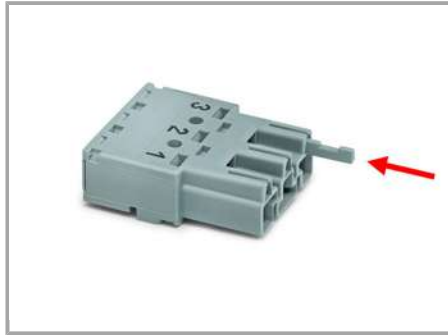
Tighten strain relief screw via screwdriver (2.5 mm blade width).

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Coding

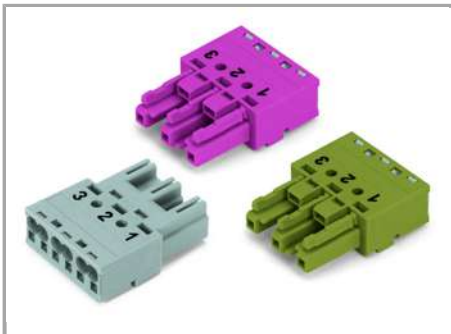


Simply cut off the coding pin from the socket.

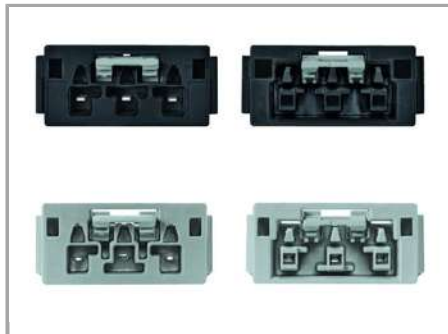


Insert coding pin into plug (break first) until it engages.

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 marking are used for circuit identification.

Only connectors of the same color and same pole marking must be plugged together.

Product family

<i>WINSTA</i>® MIDI special

[Show all products from the family](#)

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