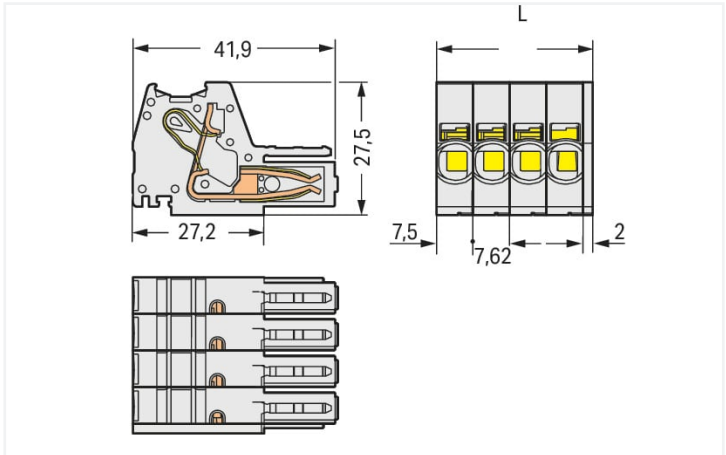# Data Sheet | Item Number: 831-3104

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; 10,00 mm²; light gray
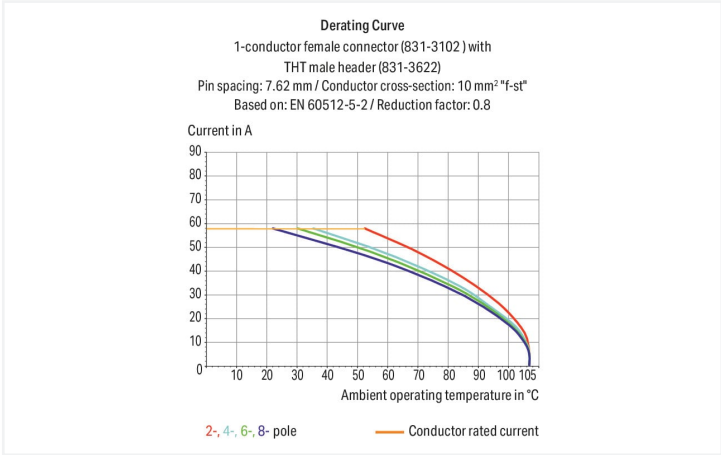
https://www.wago.com/831-3104

Color: ■ light gray

Dimensions in mm

L = (pole no. – 1) x pin spacing + 9.5 mm

Derating Curve

1-conductor female connector (831-3102) with THT male header (831-3622)
Pin spacing: 7.62 mm / Conductor cross-section: 10 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A

Ambient operating temperature in °C

2-, 4-, 6-, 8- pole — Conductor rated current

- Universal connection for all conductor types
- Push-in termination of solid or ferruled conductors
- Integrated test ports for 2 mm Ø test plugs
- 600 V UL per UL 1059
- 100 % protected against mismating
- Coding via coding fingers

Notes

Safety information	The *MCS – MULTI CONNECTION SYSTEM* includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load.When used as intended, these connectors must not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.
Variants:	Other pole numbers Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/.

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Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	800 V	1000 V	1000 V
Rated surge voltage	8 kV	8 kV	8 kV
Rated current	41 A	41 A	41 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	42 A	-

Approvals per	CSA		
Use group	B	C	D
Rated voltage	-	600 V	-
Rated current	-	41 A	-

Connection data

Connection points	4
Total number of potentials	4
Number of connection types	1
Number of levels	1

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Operating tool
Actuation direction 1	Operation parallel to conductor entry
Solid conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor	0.5 … 10 mm² / 20 … 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 … 6 mm²
Fine-stranded conductor; with uninsulated ferrule	0.5 … 6 mm²
Strip length	13 … 15 mm / 0.51 … 0.59 inches
Pole number	4
Conductor entry direction to mating direction	0 °

Physical data

Pin spacing	7.62 mm / 0.3 inches
Width	32.36 mm / 1.274 inches
Height	27.6 mm / 1.087 inches
Depth	41.9 mm / 1.65 inches

Mechanical data

Variable coding	Yes
Anti-rotation protection	Yes

Plug-in connection

Contact type (pluggable connector)	Female connector/socket
Connector (connection type)	for conductor
Mismating protection	Yes

Material data

Note (material data)	
	Information on material specifications can be found here
Color	light gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Chrome-nickel spring steel (CrNi)
Material of the additional spring for socket contact	Chrome-nickel spring steel (CrNi)
Contact material	Electrolytic copper (E_{Cu})
Contact plating	Tin
Fire load	0.432 MJ
Weight	29.8 g

Environmental requirements

Limit temperature range	-60 … +105 °C
Processing temperature	-35 … +60 °C

Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 8.0	EC001284
ETIM 7.0	EC001284
PU (SPU)	24 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454002039
Customs tariff number	85366990990

Environmental Product Compliance

RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-61360/M1
CSA DEKRA Certification B.V.	C22.2	1466354
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-116057
UR Underwriters Laboratories Inc.	UL 1059	E45172

Approvals for marine applications

Approval	Standard	Certificate Name
LR Lloyds Register	IEC 61984	96/20035 (E5)

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance 831-3104 ↓

Documentation

Additional Information

Technical Section			
	03.04.2019	pdf 2027.26 KB	↓

CAD/CAE-Data

CAD data

2D/3D Models
831-3104 ↓

CAE data

EPLAN Data Portal
831-3104 ↓

ZUKEN Portal
831-3104 ↓

1 Compatible Products

1.1 System counterpart

1.1.1 Male connector/plug

Item No.: 831-3204
1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; 10,00 mm²; light gray

Item No.: 831-3204/007-000
1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; DIN-35 rail mounting; 10,00 mm²; light gray

Item No.: 831-3204/007-9034
1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; DIN-35 rail mounting; direct marking; 10,00 mm²; light gray

Item No.: 831-3204/000-9034
1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; direct marking; 10,00 mm²; light gray

Item No.: 831-3204/135-000
1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismating; Strain relief plate; 10,00 mm²; light gray

Item No.: 831-3624
THT male header; 1.0 x 1.2 mm solder pin; angled; 100% protected against mismating; Pin spacing 7.62 mm; 4-pole; light gray

Item No.: 831-3644
THT male header; 1.0 x 1.2 mm solder pin; angled; 100% protected against mismating; Pin spacing 7.62 mm; 4-pole; light gray

Item No.: 831-3604
THT male header; 1.0 x 1.2 mm solder pin; straight; 100% protected against mismating; Pin spacing 7.62 mm; 4-pole; light gray

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1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

Item No.: 216-151
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

Item No.: 216-131
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored

Item No.: 216-132
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

Item No.: 216-152
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white

Item No.: 216-201
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

Item No.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

Item No.: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-101
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-202
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

Item No.: 216-142
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-102
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-122
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored

Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red

Item No.: 216-203
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-223
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

Item No.: 216-143
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored

Item No.: 216-204
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-244
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-284
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

Item No.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-104
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; silver-colored

Item No.: 216-205
Ferrule; Sleeve for 2.08 mm² / AWG 14; insulated; electro-tin plated; yellow

Item No.: 216-206
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; blue

Item No.: 216-246
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

Item No.: 216-266
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

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1.2.1.1 Ferrule

Item No.: 216-286
Ferrule; Sleeve for 2.5 mm² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

Item No.: 216-106
Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated; silver-colored

Item No.: 216-267
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-287
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

Item No.: 216-207
Ferrule; Sleeve for 4 mm² / AWG 12; insulated; electro-tin plated; gray

Item No.: 216-107
Ferrule; Sleeve for 4 mm² / AWG 12; uninsulated; electro-tin plated

Item No.: 216-208
Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

Item No.: 216-288
Ferrule; Sleeve for 6 mm² / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

Item No.: 216-108
Ferrule; Sleeve for 6 mm² / AWG 10; uninsulated; electro-tin plated; silver-colored

1.2.2 Marking

1.2.2.1 Marker

Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 793-5501/000-006
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 793-5501/000-014
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; brown

Item No.: 793-5501/000-007
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 793-5501/000-023
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 793-5501/000-017
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 793-5501/000-012
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 793-5501/000-005
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red

Item No.: 793-5501/000-024
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 793-5501
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 793-5501/000-002
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

Item No.: 793-501/000-006
WMB marking card; as card; not stretchable; plain; snap-on type; blue

Item No.: 793-501/000-007
WMB marking card; as card; not stretchable; plain; snap-on type; gray

1.2.2.1 Marker

Item No.: 793-501/000-023
WMB marking card; as card; not stretchable; plain; snap-on type; green

Item No.: 793-501/000-017
WMB marking card; as card; not stretchable; plain; snap-on type; light green

Item No.: 793-501/000-012
WMB marking card; as card; not stretchable; plain; snap-on type; orange

Item No.: 793-501/000-005
WMB marking card; as card; not stretchable; plain; snap-on type; red

Item No.: 793-501/000-024
WMB marking card; as card; not stretchable; plain; snap-on type; violet

Item No.: 793-501
WMB marking card; as card; not stretchable; plain; snap-on type; white

Item No.: 793-501/000-002
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

Item No.: 2009-115/000-006
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue

Item No.: 2009-115/000-007
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray

Item No.: 2009-115/000-023
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green

Item No.: 2009-115/000-017
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green

Item No.: 2009-115/000-012
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange

Item No.: 2009-115/000-024
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet

Item No.: 2009-115
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

Item No.: 2009-115/000-002
WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.2.2.2 Marking strip

Item No.: 2009-110/762-802
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-803
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-804
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-805
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-806
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-807
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110/762-808
Marking strips; for Smart Printer; cut to a defined length; MARKED; Specialty printing; not stretchable; Horizontal marking; snap-on type; white

Item No.: 2009-110
Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.2.3 Strain relief

1.2.3.1 Strain relief plate

Item No.: 831-505
Strain relief plate; for female and male connectors; 30 mm wide; 1 part; Pin spacing 7.62 mm; light gray

1.2.4 Test and measurement

1.2.4.1 Testing accessories

Item No.: 210-136
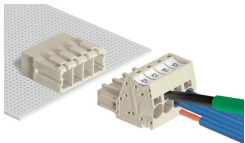Test plug; 2 mm Ø; with 500 mm cable; red
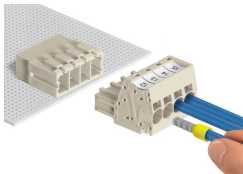
1.2.5 Tool

1.2.5.1 Operating tool

Item No.: 210-721
Operating tool; Blade: 5.5 x 0.8 mm; with a
partially insulated shaft; multicoloured

Installation Notes

Conductor termination
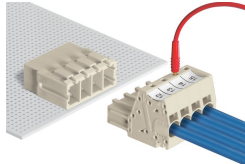
Inserting fine-stranded conductors via
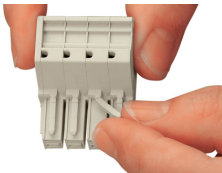(5.5 x 0.8) mm screwdriver.

Solid and ferruled conductors are termi-
nated by simply pushing them into unit.

Testing

Testing with 2 mm Ø test plug.

Coding

Break or cut off coding pin from female
connector.

Marking

Direct marking of female and male connectors

MCS MAXI male and female connectors can also be marked via Mini-WSB or WMB markers.

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

Current addresses can be found at:: www.wago.com

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