

Data Sheet | Item Number: 831-3104

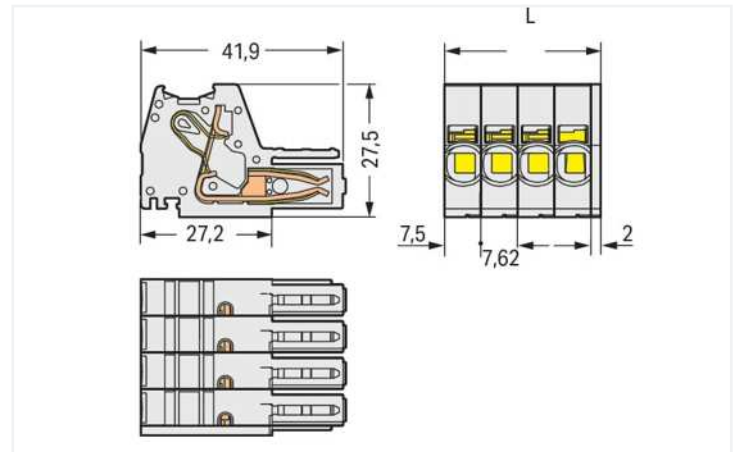
1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 4-pole; 100% protected against mismatching; 10,00 mm²; light gray



<https://www.wago.com/831-3104>

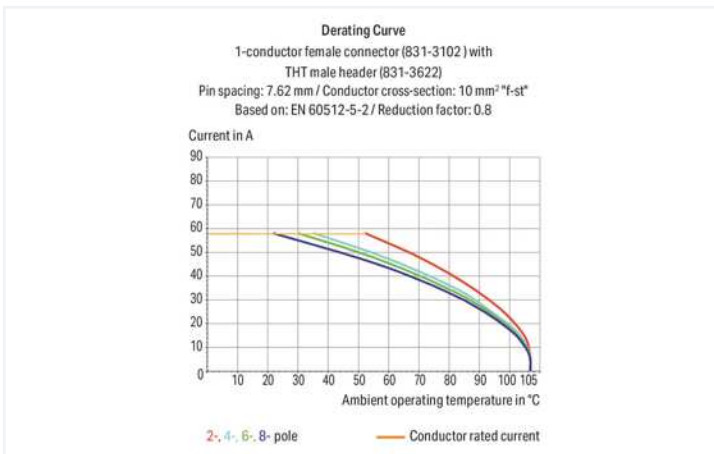


Color:  light gray



Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 9.5 \text{ mm}$



- 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 mismatching
- Coding via coding fingers

Notes

Safety information 1

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/>.

Electrical data

Ratings per IEC/EN

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

Ratings per UL 1059

| | |
|--------------------------------|---------|
| Approvals per | UL 1059 |
| Rated voltage UL (Use Group C) | 600 V |
| Rated current UL (Use Group C) | 42 A |

Ratings per CSA

| | |
|---------------------------------|-------|
| Approvals per | CSA |
| Rated voltage CSA (Use Group C) | 600 V |
| Rated current CSA (Use Group C) | 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 |
| Solid conductor | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Fine-stranded conductor | 0.5 ... 10 mm ² / 20 ... 8 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.5 ... 6 mm ² |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 6 mm ² |
| 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 |
| Mismatching 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 |

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

1949.09 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; Pin spacing 7.62 mm; 4-pole; light gray

1.2 Optional Accessories

1.2.1 Ferrule

1.2.1.1 Ferrule

| | | | |
|--|--|---|--|
|  Item No.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; un-insulated; electro-tin plated |  Item No.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; un-insulated; electro-tin plated; silver-colored |  Item No.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; un-insulated; electro-tin plated |  Item No.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; un-insulated; electro-tin plated |
|  Item No.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; un-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 mm ² / 20 AWG; un-insulated; electro-tin plated; white |  Item No.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; un-insulated; electro-tin plated; white |  Item No.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 |
|  Item No.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; un-insulated; electro-tin plated; silver-colored |  Item No.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; un-insulated; electro-tin plated; silver-colored |  Item No.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; un-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 mm ² / 18 AWG; un-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 mm ² / 18 AWG; un-insulated; electro-tin plated; gray |  Item No.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; un-insulated; electro-tin plated; gray |  Item No.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 |  Item No.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; un-insulated; electro-tin plated; silver-colored |
|  Item No.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; un-insulated; electro-tin plated; silver-colored |  Item No.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; un-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 mm ² / AWG 18; un-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 mm ² / AWG 18; un-insulated; electro-tin plated; red |
|  Item No.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; un-insulated; electro-tin plated; red |  Item No.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; un-insulated; electro-tin plated |  Item No.: 216-143 Ferrule; Sleeve for 1 mm ² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92 |  Item No.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; un-insulated; electro-tin plated; silver-colored |
|  Item No.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; un-insulated; electro-tin plated; black |  Item No.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; un-insulated; electro-tin plated; black |  Item No.: 216-244 Ferrule; Sleeve for 1.5 mm ² / AWG 16; un-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 mm ² / AWG 16; un-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 mm ² / AWG 16; un-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 mm ² / AWG 16; un-insulated; electro-tin plated |  Item No.: 216-144 Ferrule; Sleeve for 1.5 mm ² / AWG 16; un-insulated; 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 mm ² / AWG 16; un-insulated; electro-tin plated; silver-colored |
|  Item No.: 216-205 Ferrule; Sleeve for 2.08 mm ² / AWG 14; un-insulated; electro-tin plated; yellow |  Item No.: 216-206 Ferrule; Sleeve for 2.5 mm ² / AWG 14; un-insulated; electro-tin plated; blue |  Item No.: 216-246 Ferrule; Sleeve for 2.5 mm ² / AWG 14; un-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 mm ² / AWG 14; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue |
|  Item No.: 216-286 Ferrule; Sleeve for 2.5 mm ² / AWG 14; un-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 mm ² / AWG 14; un-insulated; electro-tin plated; silver-colored |  Item No.: 216-267 Ferrule; Sleeve for 4 mm ² / AWG 12; un-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 mm ² / AWG 12; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray |

1.2.1.1 Ferrule



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



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

1.2.2.1 Marker



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; cut to a defined length; Specialty printing; not stretchable; Horizontal marking; snap-on type; white



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



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



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



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



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



Item No.: 2009-110/762-808
Marking strips; cut to a defined length; 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; 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

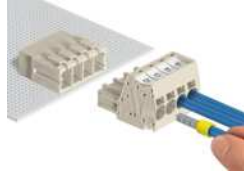
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

Conductor termination

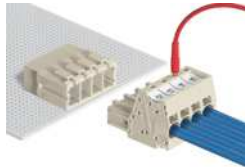


Inserting fine-stranded conductors via (5.5 x 0.8) mm screwdriver.



Solid and ferruled conductors are terminated 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.