

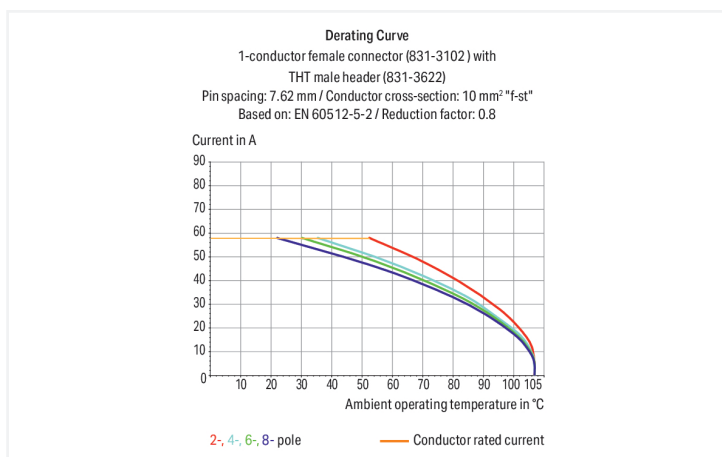
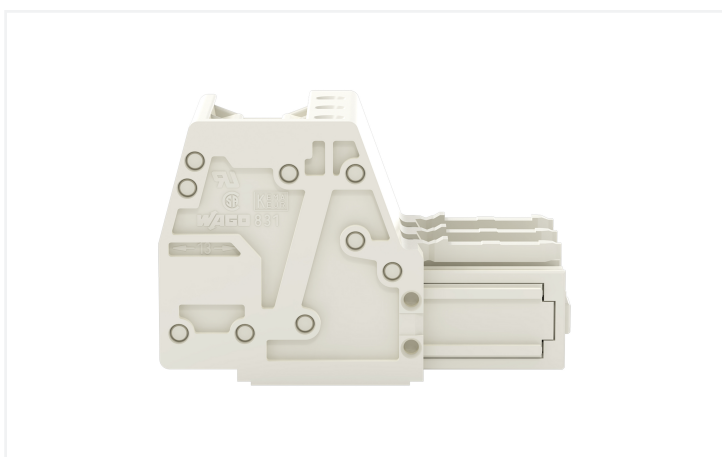
# Data Sheet | Item Number: 831-3103

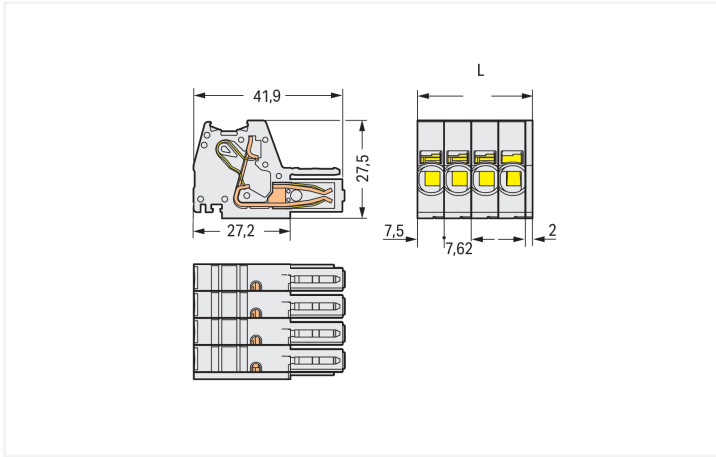
1-conductor female connector; Push-in CAGE CLAMP®; 10 mm<sup>2</sup>; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; 10,00 mm<sup>2</sup>; light gray

<https://www.wago.com/831-3103>



Color: ■ light gray





Dimensions in mm

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

Female connector, 831 Series, operating tool

This female connector (item number 831-3103) simplifies electrical installations. Ensure that the strip lengths are between 13 and 15 mm when connecting conductors to this female connector. This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Our Push-in CAGE CLAMP® is a universal, maintenance-free connection solution for all conductor types, offering a key advantage: both solid and fine-stranded conductors with ferrules can be directly inserted without the need for tools or any preparation, such as crimping the ferrule. Dimensions: (24.74 x 27.6 x 41.9) mm (width x height x depth). This female connector is suitable for conductor cross sections ranging from 0.5 mm<sup>2</sup> to 10 mm<sup>2</sup>.

Tin is used for coating the contact surfaces.

**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/>.

**Electrical data**

Ratings per	IEC/EN 60664-1		
Overtoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	800 V	1000 V	1000 V
Rated impulse withstand 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

Clamping units	3
Total number of potentials	3
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 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor	0.5 ... 10 mm <sup>2</sup> / 20 ... 8 AWG
Fine-stranded conductor; with insulated ferrule	0.5 ... 6 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0.5 ... 6 mm <sup>2</sup>
Strip length	13 ... 15 mm / 0.51 ... 0.59 inches
Pole number	3
Conductor entry direction to mating direction	0°

### Physical data

Pin spacing	7.62 mm / 0.3 inches
Width	24.74 mm / 0.974 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)	<a href="#">Information on material specifications can be found here</a>
Color	light gray
Material group	I
Insulation material (main housing)	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 <sub>Cu</sub> )
Contact Plating	Tin
Fire load	0.298 MJ
Weight	22.6 g

**Environmental requirements**

Limit temperature range	-60 ... +105 °C
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**Commercial data**

Product Group	3 (Multi Conn. System)
PU (SPU)	48 pcs
Packaging type	Box
Country of origin	PL
GTIN	4066966832440
Customs tariff number	85366990990

**Product Classification**

UNSPSC	39121409
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 9.0	EC001284
ETIM 10.0	EC001284
ECCN	NO US CLASSIFICATION

**Environmental Product Compliance**

RoHS Compliance Status	Compliant, No Exemption
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**Approvals / Certificates**

**General approvals** **Approvals for marine applications**



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-61360/M1
CSA DEKRA Certification B.V.	C22.2	1466354
DEKRA DEKRA Certification B.V.	EN 61984	71-173515
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-129589 REV.1
UR Underwriters Laboratories Inc.	UL 1059	UL-US-2426356-0

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

**Downloads**

**Environmental Product Compliance**

Compliance Search	
Environmental Product Compliance 831-3103	↓

**Documentation**

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	↓

**CAD/CAE-Data**

CAD data	
2D/3D Models 831-3103	↓

CAE data	
EPLAN Data Portal 831-3103	↓
ZUKEN Portal 831-3103	↓

**1 Compatible Products**

**1.1 System counterpart**











































**1.1.1 Male connector/plug**

<p><b>Item No.: 831-3203</b> 1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; 10,00 mm²; light gray</p>	<p><b>Item No.: 831-3203/007-000</b> 1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; DIN-35 rail mounting; 10,00 mm²; light gray</p>	<p><b>Item No.: 831-3203/007-9034</b> 1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; DIN-35 rail mounting; direct marking; 10,00 mm²; light gray</p>	<p><b>Item No.: 831-3203/000-9034</b> 1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; direct marking; 10,00 mm²; light gray</p>
<p><b>Item No.: 831-3203/133-000</b> 1-conductor male connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mismatching; Strain relief plate; 10,00 mm²; light gray</p>	<p><b>Item No.: 831-3623</b> THT male header; 1.0 x 1.2 mm solder pin; angled; 100% protected against mismatching; Pin spacing 7.62 mm; 3-pole; light gray</p>	<p><b>Item No.: 831-3643</b> THT male header; 1.0 x 1.2 mm solder pin; angled; 100% protected against mismatching; Pin spacing 7.62 mm; 3-pole; light gray</p>	<p><b>Item No.: 831-3603</b> THT male header; 1.0 x 1.2 mm solder pin; straight; 100% protected against mismatching; Pin spacing 7.62 mm; 3-pole; light gray</p>

1.2 Optional Accessories

1.2.1 Marking

1.2.1.1 Marker

<p><b>Item No.: 2009-145/000-006</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue</p> 	<p><b>Item No.: 2009-145/000-007</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p> 	<p><b>Item No.: 2009-145/000-023</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green</p> 	<p><b>Item No.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p> 
<p><b>Item No.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red</p> 	<p><b>Item No.: 2009-145/000-024</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p> 	<p><b>Item No.: 2009-145</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p> 	<p><b>Item No.: 2009-145/000-002</b> Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p> 
<p><b>Item No.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p> 	<p><b>Item No.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p> 	<p><b>Item No.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green</p> 	<p><b>Item No.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green</p> 
<p><b>Item No.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p> 	<p><b>Item No.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red</p> 	<p><b>Item No.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p> 	<p><b>Item No.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p> 
<p><b>Item No.: 793-5501/000-006</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; blue</p> 	<p><b>Item No.: 793-5501/000-007</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p> 	<p><b>Item No.: 793-5501/000-023</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; green</p> 	<p><b>Item No.: 793-5501/000-017</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; light green</p> 
<p><b>Item No.: 793-5501/000-012</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p> 	<p><b>Item No.: 793-5501/000-005</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; red</p> 	<p><b>Item No.: 793-5501/000-024</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p> 	<p><b>Item No.: 793-5501</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white</p> 
<p><b>Item No.: 793-5501/000-002</b> WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p> 	<p><b>Item No.: 793-501/000-006</b> WMB marking card; as card; not stretchable; plain; snap-on type; blue</p> 	<p><b>Item No.: 793-501/000-007</b> WMB marking card; as card; not stretchable; plain; snap-on type; gray</p> 	<p><b>Item No.: 793-501/000-023</b> WMB marking card; as card; not stretchable; plain; snap-on type; green</p> 
<p><b>Item No.: 793-501/000-017</b> WMB marking card; as card; not stretchable; plain; snap-on type; light green</p> 	<p><b>Item No.: 793-501/000-012</b> WMB marking card; as card; not stretchable; plain; snap-on type; orange</p> 	<p><b>Item No.: 793-501/000-005</b> WMB marking card; as card; not stretchable; plain; snap-on type; red</p> 	<p><b>Item No.: 793-501/000-024</b> WMB marking card; as card; not stretchable; plain; snap-on type; violet</p> 
<p><b>Item No.: 793-501</b> WMB marking card; as card; not stretchable; plain; snap-on type; white</p> 	<p><b>Item No.: 793-501/000-002</b> WMB marking card; as card; not stretchable; plain; snap-on type; yellow</p> 	<p><b>Item No.: 2009-115/000-006</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue</p> 	<p><b>Item No.: 2009-115/000-007</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p> 
<p><b>Item No.: 2009-115/000-023</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green</p> 	<p><b>Item No.: 2009-115/000-017</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; light green</p> 	<p><b>Item No.: 2009-115/000-012</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p> 	<p><b>Item No.: 2009-115/000-024</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p> 
<p><b>Item No.: 2009-115</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p> 	<p><b>Item No.: 2009-115/000-002</b> WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p> 		

1.2.1.2 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

1.2.2 Strain relief

1.2.2.1 Strain relief plate



**Item No.: 831-503**

Strain relief plate; for female and male connectors; 15 mm wide; 1 part; Pin spacing 7.62 mm; light gray

1.2.3 Test and measurement

1.2.3.1 Testing accessories



**Item No.: 210-136**

Test plug; 2 mm Ø; with 500 mm cable; red

1.2.4 Tool

1.2.4.1 Operating tool

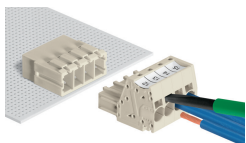


**Item No.: 210-721**

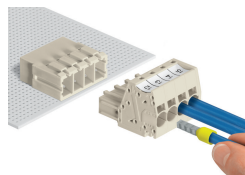
Operating tool; Blade: 5.5 x 0.8 mm; with a partially insulated shaft; multicoloured

Installation Notes

Conductor termination

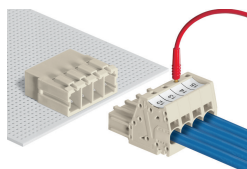


Inserting fine-stranded conductors via (5.5 x 0.8) mm screwdriver.



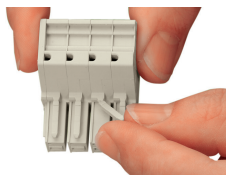
Solid and ferruled conductors are terminated by simply pushing them into unit.

## 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.