

## Data Sheet | Item Number: 831-3207/007-000

1-conductor male connector; Push-in CAGE CLAMP®; 10 mm<sup>2</sup>; Pin spacing 7.62 mm; 7-pole; 100% protected against mismatching; DIN-35 rail mounting; 10,00 mm<sup>2</sup>; light gray

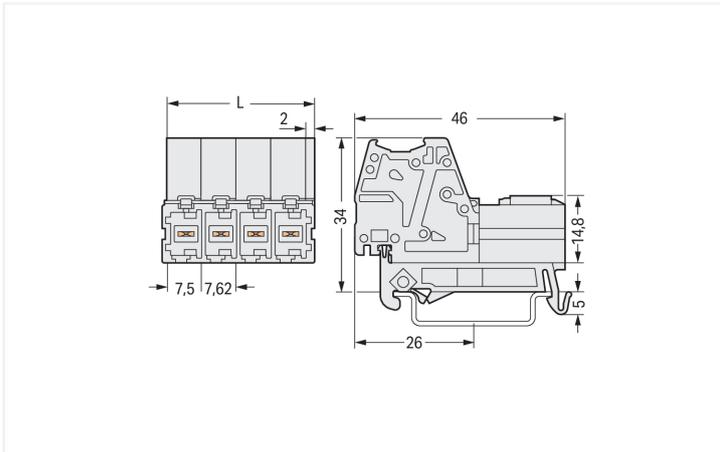
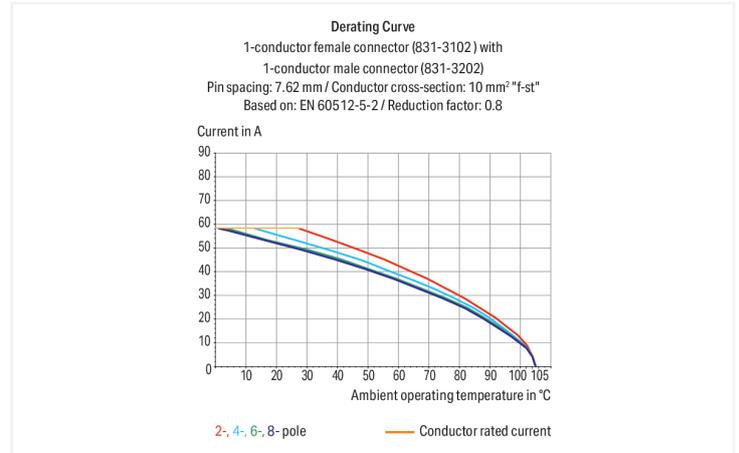


<https://www.wago.com/831-3207/007-000>



Color: ■ light gray

Similar to illustration



Dimensions in mm

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

Male connector, 831 Series, operating tool

Our male connector (item number 831-3207/007-000) simplifies electrical installations. Ensure that the strip lengths are between 13 and 15 mm when connecting conductors to this male connector. This product incorporates one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. Both solid and fine-stranded conductors with ferrules can be pushed in without needing to use any tools—all thanks to its pluggable design. The dimensions are (55.22 x 39 x 46) mm (width x height x depth). This male connector is suitable for conductor cross sections ranging from 0.5 mm<sup>2</sup> to 10 mm<sup>2</sup>.

The contact surface is coated with tin.

## 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			Approvals per	UL 1059		
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	-	600 V	-
Nominal voltage	800 V	1000 V	1000 V	Rated current	-	42 A	-
Rated impulse withstand voltage	8 kV	8 kV	8 kV				
Rated current	41 A	41 A	41 A				

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

## Connection Data

Clamping units	7	<b>Connection 1</b>	
Total number of potentials	7	Connection technology	Push-in CAGE CLAMP®
Number of connection types	1	Actuation type	Operating tool
Number of levels	1	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	7
		Conductor entry direction to mating direction	0°

## Physical data

Pin spacing	7.62 mm / 0.3 inches
Width	55.22 mm / 2.174 inches
Height	39 mm
Height from upper-edge of DIN-rail	34 mm / 1.339 inches
Depth	46 mm / 1.811 inches

### Mechanical data

Variable coding	Yes
Mounting type	DIN-35 rail
Anti-rotation protection	Yes

### Plug-in connection

Contact type (pluggable connector)	Male connector/plug
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)
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact Plating	Tin
Fire load	0.914 MJ
Weight	48.5 g

### Environmental requirements

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

### Environmental Testing

Test specification: Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06
Test procedure: Railway applications – Rolling stock equipment – Vibration and shock tests	DIN EN 61373 (VDE 0115-0106):2011-04
Spectrum/Mounting location	Service life test, Category 1, Class A/B
Functional test with noise-like oscillations	Test passed according to Section 8 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.101g (highest test level used for all axes)
Test duration per axis	10 min.
Test directions	X, Y and Z axes
Monitoring of contact faults and interruptions	Passed
Voltage drop measurement before and after each axis	Passed
Simulated service life test through increased levels of noise-like oscillations	Test passed according to Section 9 of the standard
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
Acceleration	0.572g (highest test level used for all axes)
Test duration per axis	5 h
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Shock test	Test passed according to Section 10 of the standard
Shock pulse form	Half sine

Environmental Testing	
Acceleration	5g (highest test level used for all axes)
Shock duration	30 ms
Number of shocks (per axis)	3 pos. und 3 neg.
Test directions	X, Y and Z axes
Extended testing: Monitoring of contact faults and interruptions	Passed
Extended testing: Voltage drop measurement before and after each axis	Passed
Vibration and shock stress for rolling stock equipment	Passed

Commercial data	
Product Group	3 (Multi Conn. System)
PU (SPU)	12 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454333812
Customs tariff number	85366930000

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

### 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	UL-US-2426356-0

Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Railway Ready

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product  
Compliance  
831-3207/007-000



## Documentation

### Additional Information

Technical Section

03.04.2019

pdf

2027.26 KB



## CAD/CAE-Data

### CAD data

2D/3D Models  
831-3207/007-000



### CAE data

EPLAN Data Portal  
831-3207/007-000



ZUKEN Portal  
831-3207/007-000



## 1 Compatible Products

### 1.1 System counterpart

#### 1.1.1 Female connector/socket



#### Item No.: 831-3107

1-conductor female connector; Push-in  
CAGE CLAMP®; 10 mm²; Pin spacing 7.62  
mm; 7-pole; 100% protected against mis-  
mating; 10,00 mm²; light gray

### 1.2 Optional Accessories

#### 1.2.1 Coding

##### 1.2.1.1 Coding



#### Item No.: 831-500

Coding pin carrier with six coding pins;  
orange

1.2.2 Ferrule

1.2.2.1 Ferrule



**Item No.: 216-284**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

**Item No.: 216-286**

Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue

**Item No.: 216-287**

Ferrule; Sleeve for 4 mm<sup>2</sup> / AWG 12; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray

**Item No.: 216-288**

Ferrule; Sleeve for 6 mm<sup>2</sup> / AWG 10; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; yellow

1.2.3 Marking

1.2.3.1 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.: 793-5501/000-007**

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

**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

1.2.3.1 Marker



**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

1.2.3.2 Marking strip



**Item No.: 2009-110/762-852**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-853**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-854**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-855**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white



**Item No.: 2009-110/762-856**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-857**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-858**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white

**Item No.: 2009-110/762-859**

Marking strips; for Smart Printer; cut to a defined length; MARKED; not stretchable; snap-on type; white



**Item No.: 2009-110**

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

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

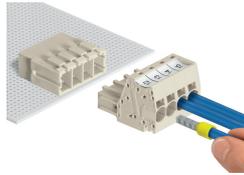
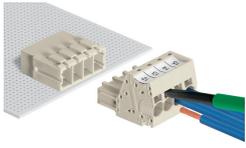


**Item No.: 210-721**

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

## Installation Notes

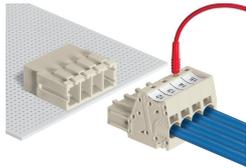
### Conductor termination



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

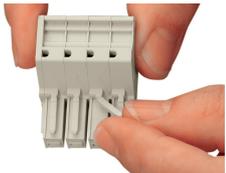
Solid and ferruled conductors are terminated by simply pushing them into unit.

### Testing



Testing with 2 mm Ø test plug.

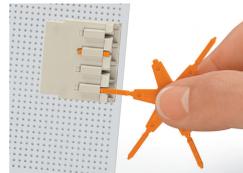
### Coding



Break or cut off coding pin from female connector.



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



Coding a THT male header by inserting a coding pin.

### Marking



Direct marking of female and male connectors



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



Male connector mounted on a DIN-35 rail via integrated mounting adapter