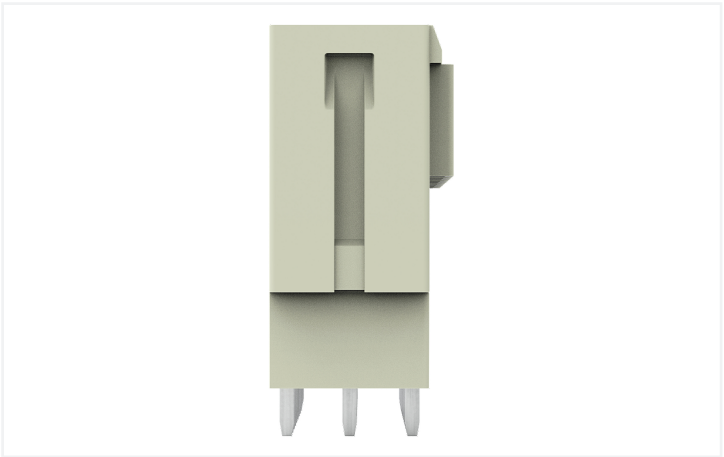
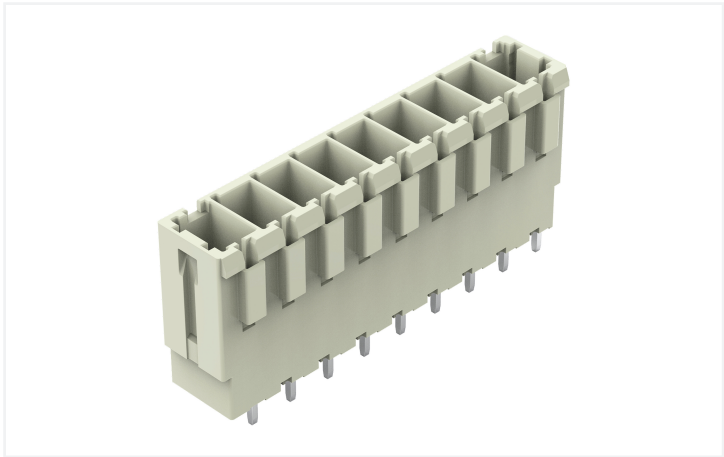


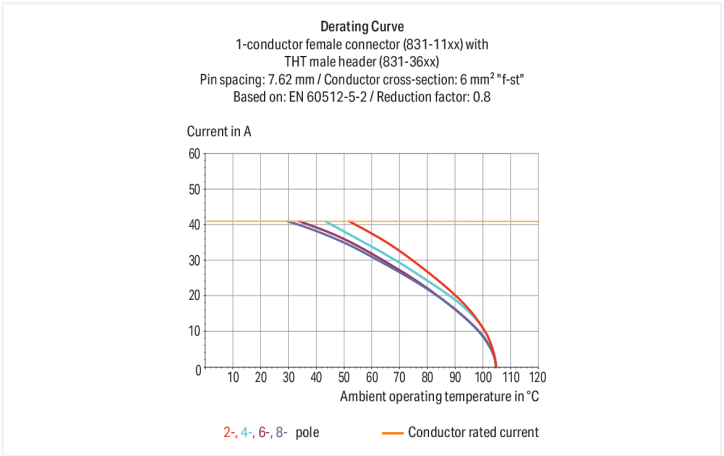
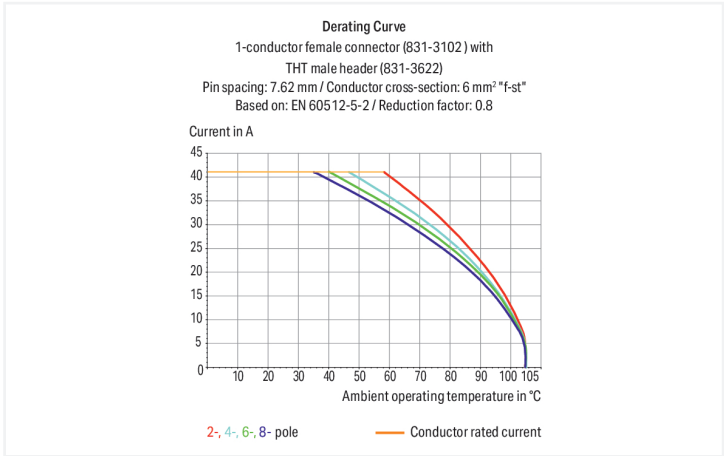
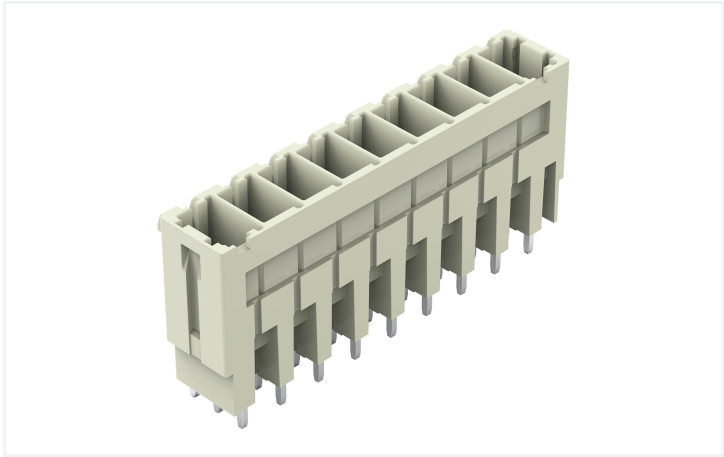
Data Sheet | Item Number: 831-3609

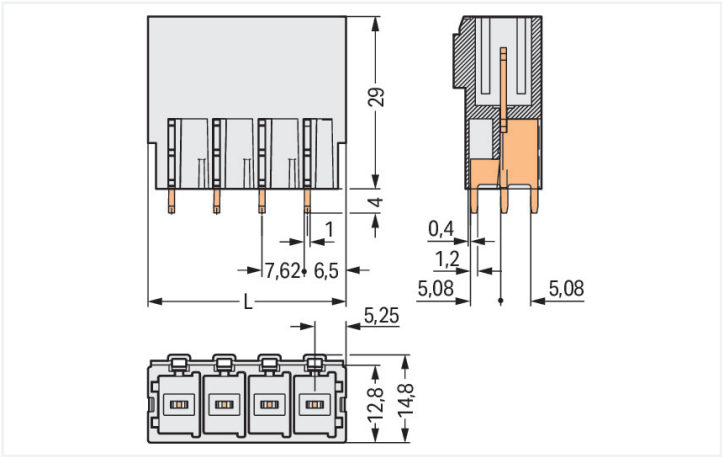
THT male header; 1.0 x 1.2 mm solder pin; straight; 100% protected against mis-mating; Pin spacing 7.62 mm; 9-pole; light gray

<https://www.wago.com/831-3609>



Color: ■ light gray





Dimensions in mm
L = (pole no. – 1) x pin spacing + 10.5 mm

Male connector, 831 Series, with 7.62 mm pin spacing

This male connector (item number 831-3609) simplifies electrical installations. Dimensions: (71.46 x 33 x 14.8) mm (width x height x depth).

The contact surface is coated with tin. THT is used to assemble the pcb connector.

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 Protection against PCB mounting errors 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	
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	500 V	630 V	1000 V
Rated impulse withstand voltage	6 kV	6 kV	6 kV
Rated current	41 A	41 A	41 A
Approvals per		UL 1059	
Use group	B	C	D
Rated voltage	-	300 V	600 V
Rated current	-	42 A	5 A
Approvals per		CSA	
Use group	B	C	D
Rated voltage	-	300 V	600 V
Rated current	-	41 A	5 A

Connection Data	
Total number of potentials	9
Number of connection types	1
Number of levels	1
Connection 1	
Pole number	9



Physical data		
Pin spacing		7.62 mm / 0.3 inches
Width		71.46 mm / 2.813 inches
Height		33 mm / 1.299 inches
Height from the surface		29 mm / 1.142 inches
Depth		14.8 mm / 0.583 inches
Solder pin length		4 mm
Solder pin dimensions		1 x 1.2 mm
Drilled hole diameter with tolerance		1.7 ^(+0.1) mm

Mechanical data		
Variable coding		Yes
Anti-rotation protection		Yes

Plug-in connection		
Contact type (pluggable connector)		Male connector/plug
Connector (connection type)		for PCB
Mismating protection		Yes
Mating direction to the PCB		90 °

PCB contact		
PCB contact		THT
Solder pin arrangement		over the entire male connector (in-line)
Number of solder pins per potential		3

Material data		
Note (material data)		Information on material specifications can be found here
Color		light gray
Material group		I
Insulation material (main housing)		Polyamide (PA66)
Flammability class per UL94		V0
Contact material		Electrolytic copper (E _{Cu})
Contact Plating		Tin
Fire load		0.387 MJ
Weight		24.8 g

Environmental requirements			
Limit temperature range	-60 ... +105 °C	Environmental Testing	
Processing temperature	-35 ... +60 °C		
		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 Hz to f ₂ = 150 Hz
		Acceleration	0.101g (highest test level used for all axes)
		Test duration per axis	10 min.
		Test directions	X, Y and Z axes



Environmental Testing	
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 Hz to f ₂ = 150 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
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	
PU (SPU)	12 pcs
Packaging type	Box
Country of origin	PL
GTIN	4055143589437
Customs tariff number	85366930000

Product Classification	
UNSPSC	39121409
eCl@ss 10.0	27-44-04-02
eCl@ss 9.0	27-44-04-02
ETIM 9.0	EC002637
ETIM 10.0	EC002637
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
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

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 831-3609



Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB



CAD/CAE-Data

CAD data
2D/3D Models 831-3609



CAE data
ZUKEN Portal 831-3609





PCB Design	
Symbol and Footprint via SamacSys 831-3609	
Symbol and Footprint via Ultra Librarian 831-3609	

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

Item No.: 831-1109 1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; 10,00 mm²; light gray	Item No.: 831-1109/000-004 1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; black	Item No.: 831-1109/322-000 1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; Centered locking levers; 10,00 mm²; light gray	Item No.: 831-1109/037-000 1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; 10,00 mm²; light gray
Item No.: 831-1109/038-000 1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; 10,00 mm²; light gray	Item No.: 831-3109 1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; 10,00 mm²; light gray	Item No.: 831-3109/136-000 1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; Gripping plate; 10,00 mm²; light gray	Item No.: 831-3109/037-000 1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; 10,00 mm²; light gray
Item No.: 831-1109/320-000 1-conductor female plug; 100% protected against mismatching; lever; Locking lever; 10 mm²; Pin spacing 7.62 mm; 9-pole	Item No.: 831-3529 THT female header; angled; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; 1.0 x 1.2 mm solder pin; light gray	Item No.: 831-3509 THT female header; straight; Pin spacing 7.62 mm; 9-pole; 100% protected against mismatching; 1.0 x 1.2 mm solder pin; light gray	

1.2 Optional Accessories

1.2.1 Coding

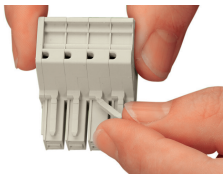
1.2.1.1 Coding



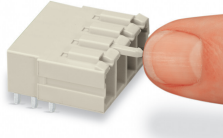
Item No.: 831-500 Coding pin carrier with six coding pins; orange

Installation Notes

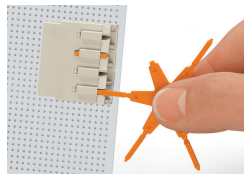
Coding



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.

