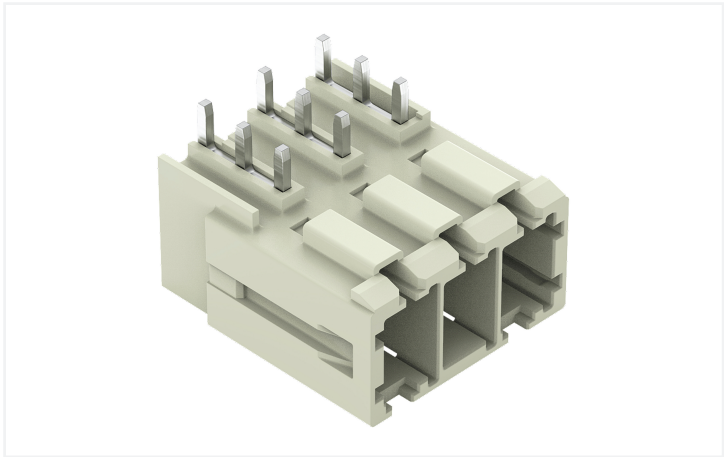


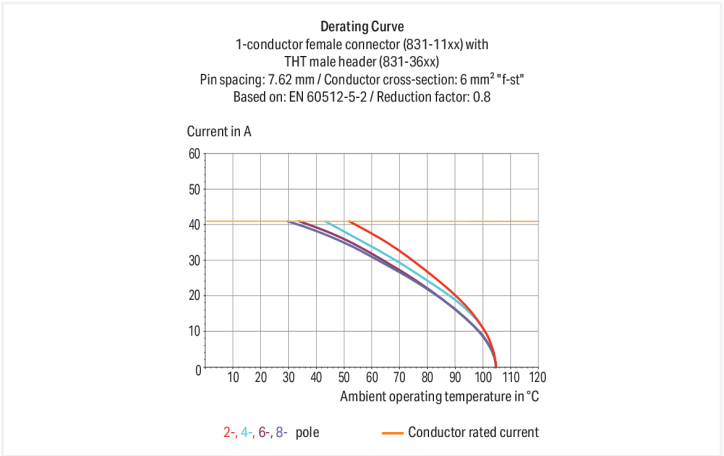
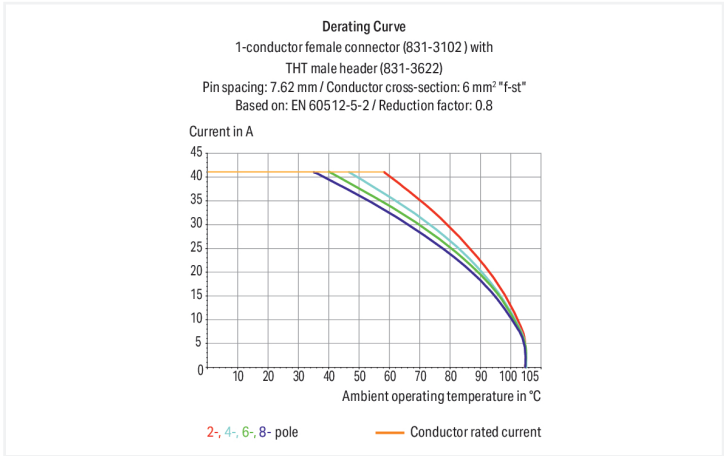
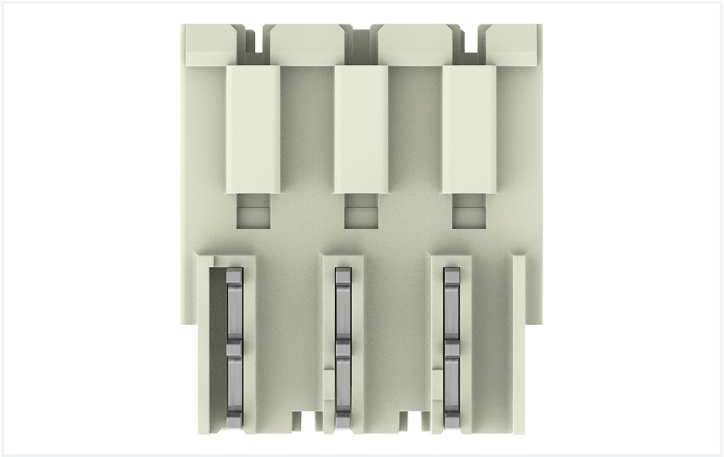
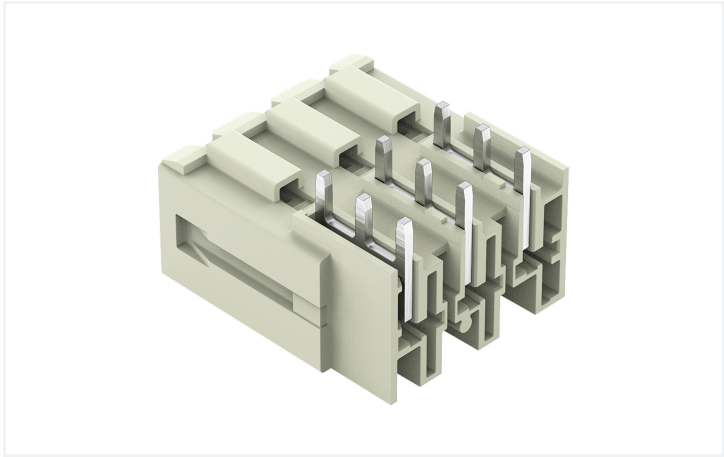
Data Sheet | Item Number: 831-3643

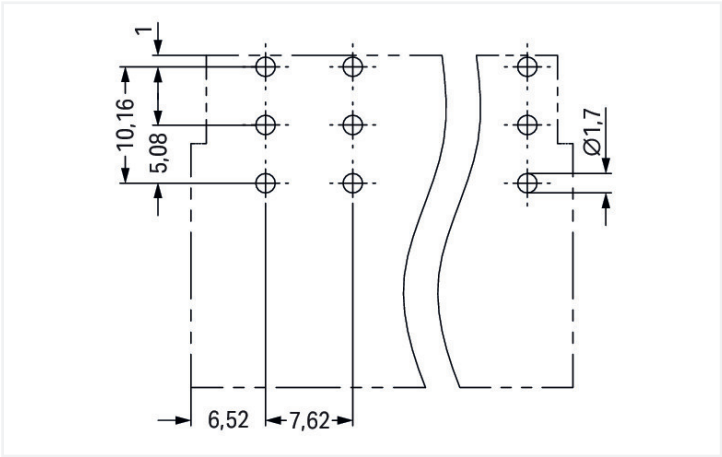
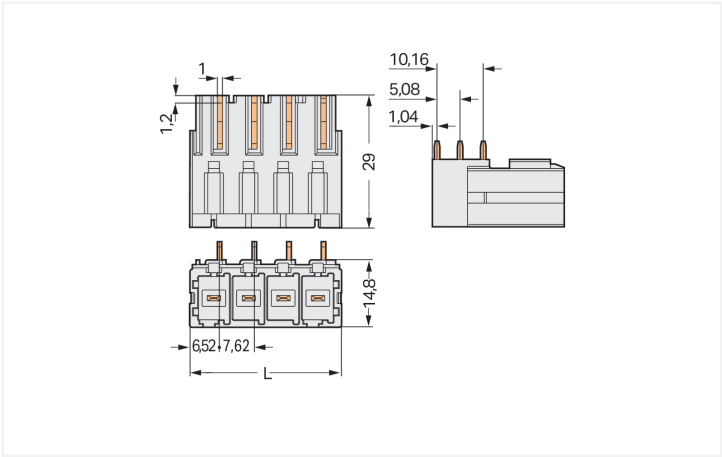
THT male header; 1.0 x 1.2 mm solder pin; angled; 100% protected against mis-
mating; Pin spacing 7.62 mm; 3-pole; light gray

<https://www.wago.com/831-3643>



Color: ■ light gray





$L = (\text{pole no.} - 1) \times \text{pin spacing} + 10.5 \text{ mm}$

Male connector, 831 Series, with 7.62 mm pin spacing

Our male connector (item number 831-3643) is designed for seamless electrical installations.

Tin is used for coating the contact surfaces. The pcb connector is designed for THT soldering.

Notes

Safety Information

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/>.

Variants:

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.

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		CSA		
Use group		B	C	D
Rated voltage		-	300 V	600 V
Rated current		-	41 A	5 A

Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		-	300 V	600 V
Rated current		-	42 A	5 A

Connection Data				
Total number of potentials	3	Connection 1		
Number of connection types	1	Pole number	3	
Number of levels	1			



Physical data		
Pin spacing	7.62 mm / 0.3 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	180 °	

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	0.146 MJ	
Weight	8.8 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
		Monitoring of contact faults and interruptions	Passed
		Voltage drop measurement before and after each axis	Passed



Environmental Testing	
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)	48 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966133264
Customs tariff number	85366930000

Product Classification	
UNSPSC	39121409
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 831-3643



Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB



CAD/CAE-Data

CAD data
2D/3D Models 831-3643



CAE data
ZUKEN Portal 831-3643



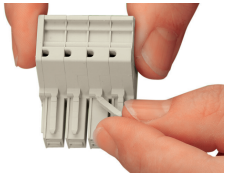
PCB Design

Symbol and Footprint via SamacSys 831-3643
Symbol and Footprint via Ultra Librarian 831-3643

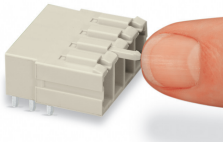


Installation Notes

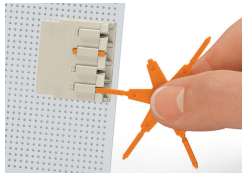
Coding



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.

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

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