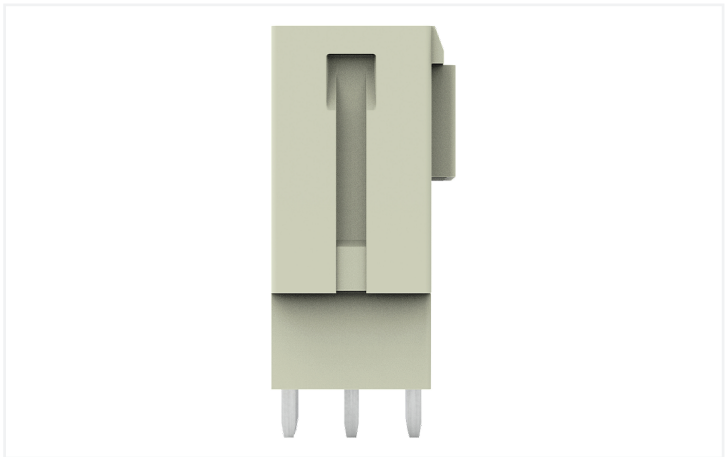
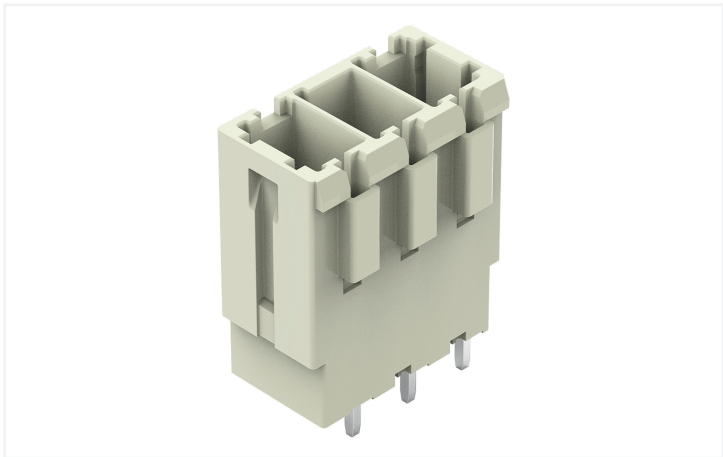


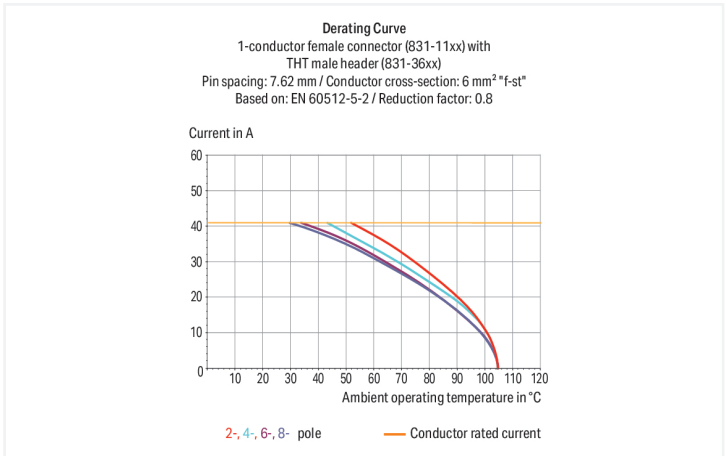
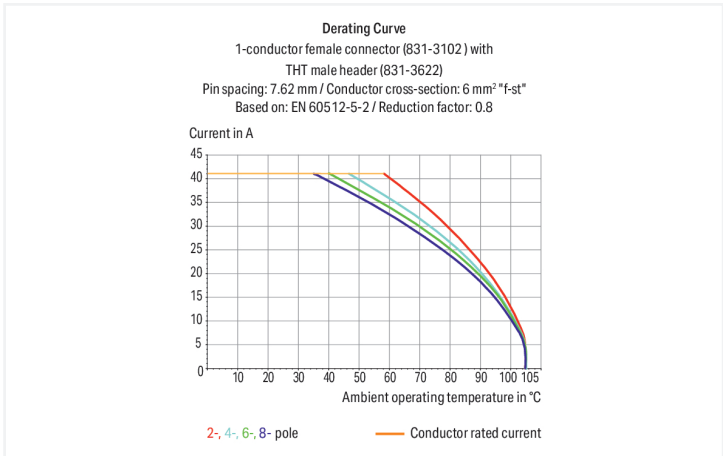
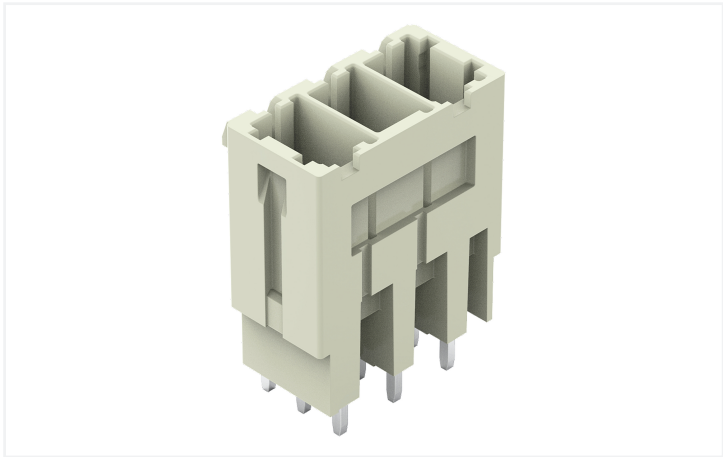
Data Sheet | Item Number: 831-3603

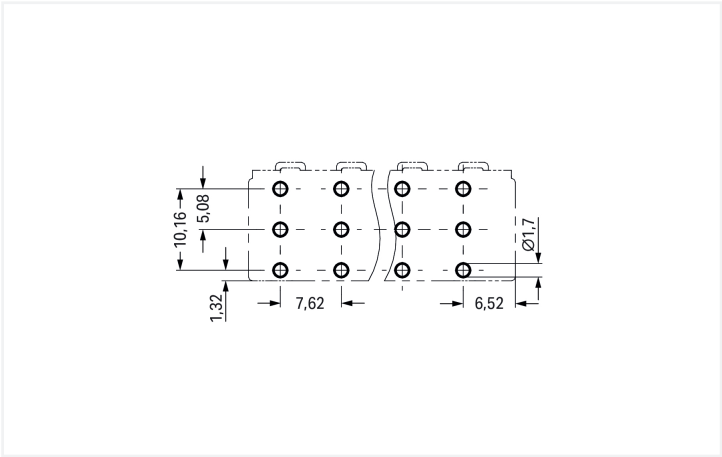
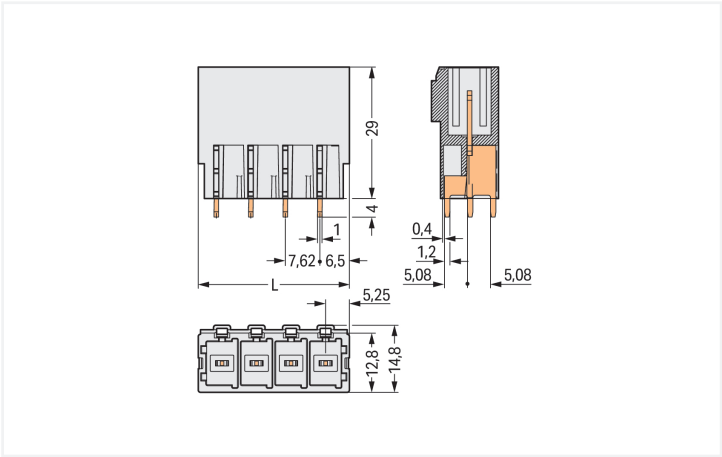
THT male header; 1.0 x 1.2 mm solder pin; straight; 100% protected against mismating;
Pin spacing 7.62 mm; 3-pole; light gray

<https://www.wago.com/831-3603>



Color: ■ light gray





Dimensions in mm
L = (Polzahl – 1) x Rastermaß + 10,5 mm

Male connector, 831 Series, solder pin dimensions 1 x 1.2 mm

This male connector (item number 831-3603) provides fault-free electrical installations. The item's dimensions are (25.74 x 33 x 14.8) mm (width x height x depth).

Tin is used for coating the contact surfaces. THT is used to assemble the pcb connector.

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/>.

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	
Number of levels	1	
		Pole number 3

Physical data		
Pin spacing	7.62 mm / 0.3 inches	
Width	25.74 mm / 1.013 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	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	0.13 MJ	
Weight	8.8 g	

Environmental requirements		
Limit temperature range	-60 ... +105 °C	Environmental Testing
Processing temperature	-35 ... +60 °C	
		Test specification: DIN EN 50155 (VDE 0115-200):2022-06
		Railway applications –
		Rolling stock –
		Electronic equipment



Environmental Testing	
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
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	
Product Group	3 (Multi Conn. System)
PU (SPU)	48 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454002114
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			Declarations of conformity and manufacturer's declarations		
					
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-61360/M1	Railway WAGO GmbH & Co. KG	-	Railway Ready
CSA DEKRA Certification B.V.	C22.2	1466354			
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-129589 REV.1			
UR Underwriters Laboratories Inc.	UL 1059	UL-US-2426356-0			

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 831-3603	

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	



CAD/CAE-Data

CAD data

2D/3D Models 831-3603

↓

CAE data

EPLAN Data Portal
831-3603

↓

ZUKEN Portal 831-3603

↓

PCB Design

Symbol and Footprint via
SamacSys 831-3603

↓

Symbol and Footprint via
Ultra Librarian 831-3603

↓

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: 831-1103

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; 10,00 mm²; light gray



Item No.: 831-1103/000-004

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; black



Item No.: 831-1103/322-004

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Centered locking levers



Item No.: 831-1103/302-004

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Centered locking levers; 10,00 mm²; black



Item No.: 831-1103/320-000

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Centered locking levers; 10,00 mm²; light gray



Item No.: 831-1103/322-000

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Centered locking levers; 10,00 mm²; light gray



Item No.: 831-1103/037-000

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Lateral locking levers; 10,00 mm²; light gray



Item No.: 831-1103/038-000

1-conductor female connector; lever; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Lateral locking levers; 10,00 mm²; light gray



Item No.: 831-3103

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; 10,00 mm²; light gray



Item No.: 831-3103/000-9037

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; direct marking; 10,00 mm²; light gray



Item No.: 831-3103/133-000

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Gripping plate; 10,00 mm²; light gray



Item No.: 831-3103/037-000

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Lateral locking levers; 10,00 mm²; light gray



Item No.: 831-3103/037-9037

1-conductor female connector; Push-in CAGE CLAMP®; 10 mm²; Pin spacing 7.62 mm; 3-pole; 100% protected against mis-mating; Lateral locking levers; direct marking; 10,00 mm²; light gray



Item No.: 831-3523

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



Item No.: 831-3503

THT female header; straight; Pin spacing 7.62 mm; 3-pole; 100% protected against mismating; 1.0 x 1.2 mm solder pin; light gray

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding

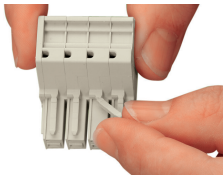


Item No.: 831-500

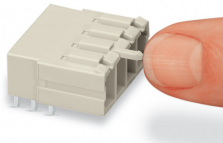
Coding pin carrier with six coding pins; or-ange

Installation Notes

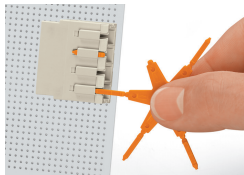
Coding



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.