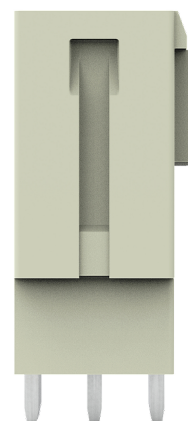
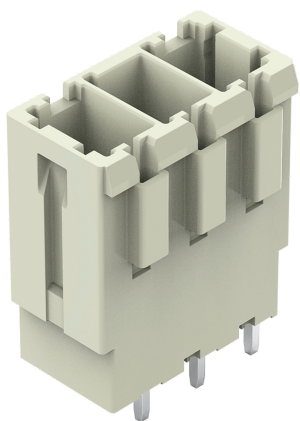


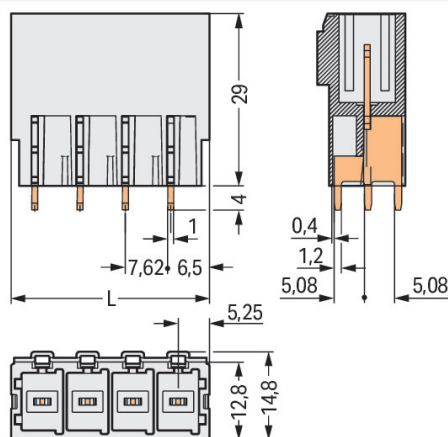
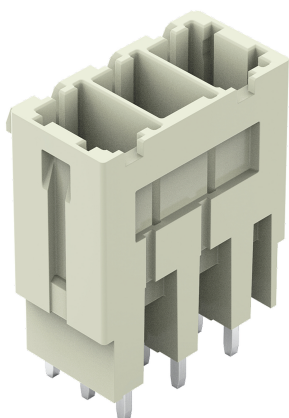
Data Sheet | Item Number: 831-3603

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

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

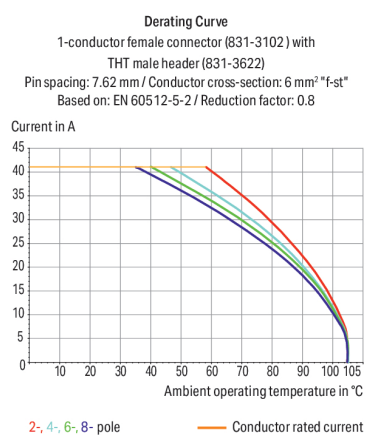


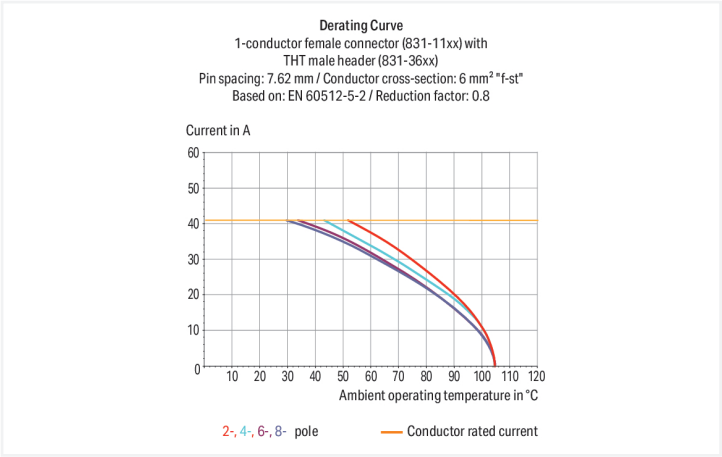
Color: ■ light gray



Dimensions in mm

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





Stiftleiste Serie 831 mit Lötstiftabmessungen 1 x 1,2 mm

Die Stiftleiste hat die Artikelnummer 831-3603 und schafft eine saubere ordentliche Elektroinstallation. Unsere Leiterplatten-Steckverbinder ermöglichen Ihnen die größtmögliche Flexibilität bei unterschiedlichen Montagearten. In Breite x Höhe x Tiefe sind die Abmessungen (25,74 x 33 x 14,8) mm. Die Oberfläche der Kontakte besteht aus Zinn. Das MCS – "Multi Connection System" von WAGO umfasst insgesamt 7 Familien in den Rastermaßen 2,5 mm bis 10,16 mm und bietet mit dem Leiterquerschnittsbereich von 0,08 bis 25 mm² ein großes Portfolio an Einsatzmöglichkeiten. Die Verlötung des Leiterplatten-Steckverbinders erfolgt mittels THT.

Notes	
Safety Information	The MCS – <i>MULTI CONNECTION SYSTEM</i> 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				Approvals per UL 1059			
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	-	300 V	600 V
Nominal voltage	500 V	630 V	1000 V	Rated current	-	42 A	5 A
Rated surge 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

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
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 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 MJ
Weight		8.8 g

Environmental requirements																																								
Limit temperature range	-60 ... +105 °C	<table><tr><th colspan="2">Environmental Testing (Environmental Conditions)</th></tr><tr><td>Test specification Railway applications – Rolling stock – Electronic equipment</td><td>DIN EN 50155 (VDE 0115-200):2022-06</td></tr><tr><td>Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests</td><td>DIN EN 61373 (VDE 0115-0106):2011-04</td></tr><tr><td>Spectrum/Installation location</td><td>Service life test, Category 1, Class A/B</td></tr><tr><td>Function test with noise-like vibration</td><td>Test passed according to Section 8 of the standard</td></tr><tr><td>Frequency</td><td>f₁ = 5 Hz to f₂ = 150 Hz f₁ = 5 Hz to f₂ = 150 Hz</td></tr><tr><td>Acceleration</td><td>0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)</td></tr><tr><td>Test duration per axis</td><td>10 min. 5 h</td></tr><tr><td>Test directions</td><td>X, Y and Z axes X, Y and Z axes X, Y and Z axes</td></tr><tr><td>Monitoring for contact faults/interruptions</td><td>Passed</td></tr><tr><td>Voltage drop measurement before and after each axis</td><td>Passed</td></tr><tr><td>Simulated service life test through increased levels of noise-like vibration</td><td>Test passed according to Section 9 of the standard</td></tr><tr><td>Extended test scope: Monitoring for contact faults/interruptions</td><td>Passed Passed</td></tr><tr><td>Extended test scope: Voltage drop measurement before and after each axis</td><td>Passed Passed</td></tr><tr><td>Shock test</td><td>Test passed according to Section 10 of the standard</td></tr><tr><td>Shock form</td><td>Half sine</td></tr><tr><td>Shock duration</td><td>30 ms</td></tr><tr><td>Number of shocks per axis</td><td>3 pos. und 3 neg.</td></tr><tr><td>Vibration and shock stress for rolling stock equipment</td><td>Passed</td></tr></table>	Environmental Testing (Environmental Conditions)		Test specification Railway applications – Rolling stock – Electronic equipment	DIN EN 50155 (VDE 0115-200):2022-06	Test procedure Railway applications – Rolling stock equipment – Shock and vibration tests	DIN EN 61373 (VDE 0115-0106):2011-04	Spectrum/Installation location	Service life test, Category 1, Class A/B	Function test with noise-like vibration	Test passed according to Section 8 of the standard	Frequency	f ₁ = 5 Hz to f ₂ = 150 Hz f ₁ = 5 Hz to f ₂ = 150 Hz	Acceleration	0.101g (highest test level used for all axes) 0.572g (highest test level used for all axes) 5g (highest test level used for all axes)	Test duration per axis	10 min. 5 h	Test directions	X, Y and Z axes X, Y and Z axes X, Y and Z axes	Monitoring for contact faults/interruptions	Passed	Voltage drop measurement before and after each axis	Passed	Simulated service life test through increased levels of noise-like vibration	Test passed according to Section 9 of the standard	Extended test scope: Monitoring for contact faults/interruptions	Passed Passed	Extended test scope: Voltage drop measurement before and after each axis	Passed Passed	Shock test	Test passed according to Section 10 of the standard	Shock form	Half sine	Shock duration	30 ms	Number of shocks per axis	3 pos. und 3 neg.	Vibration and shock stress for rolling stock equipment	Passed
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Shock duration	30 ms																																							
Number of shocks per axis	3 pos. und 3 neg.																																							
Vibration and shock stress for rolling stock equipment	Passed																																							
Processing temperature	-35 ... +60 °C																																							



Commercial data		
Product Group	3 (Multi Conn. System)	
eCl@ss 10.0	27-44-04-02	
eCl@ss 9.0	27-44-04-02	
ETIM 9.0	EC002637	
ETIM 8.0	EC002637	
PU (SPU)	48 pcs	
Packaging type	Box	
Country of origin	PL	
GTIN	4045454002114	
Customs tariff number	85366930000	

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	71-116057			
UR Underwriters Laboratories Inc.	UL 1059	E45172			

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	CAE data
2D/3D Models 831-3603	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 mismatching; 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 mismatching; black	 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 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 mismatching; 1.0 x 1.2 mm solder pin; light gray		

1.2 Optional Accessories

1.2.1 Coding

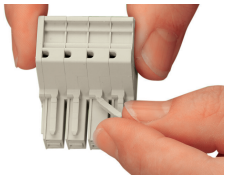
1.2.1.1 Coding



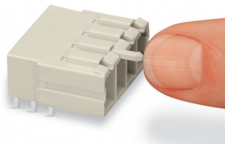
Item No.: 831-500
Coding pin carrier with six coding pins;
orange

Installation Notes

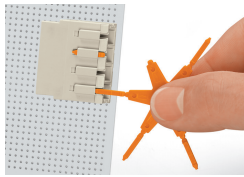
Coding



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.