

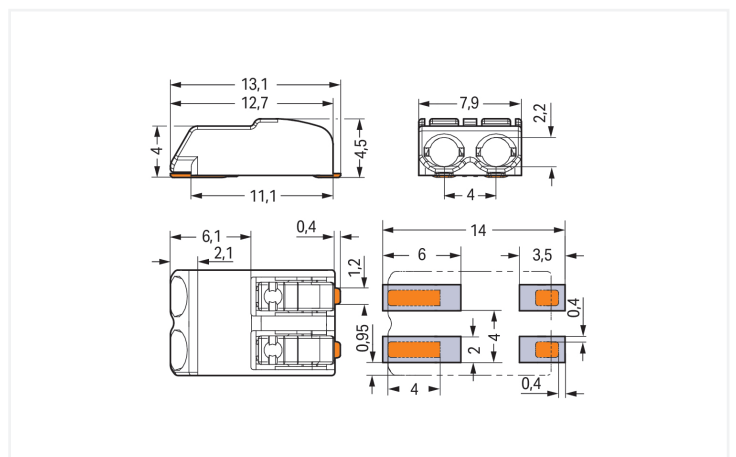
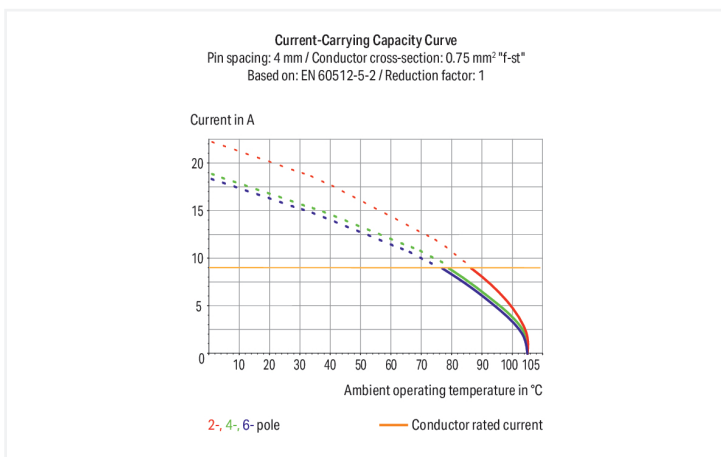
**Data Sheet | Item Number: 2060-452/998-604**  
 SMD PCB terminal block; push-button; 0.75 mm<sup>2</sup>; Pin spacing 4 mm; 2-pole; Push-in  
 CAGE CLAMP®; in tape-and-reel packaging; white

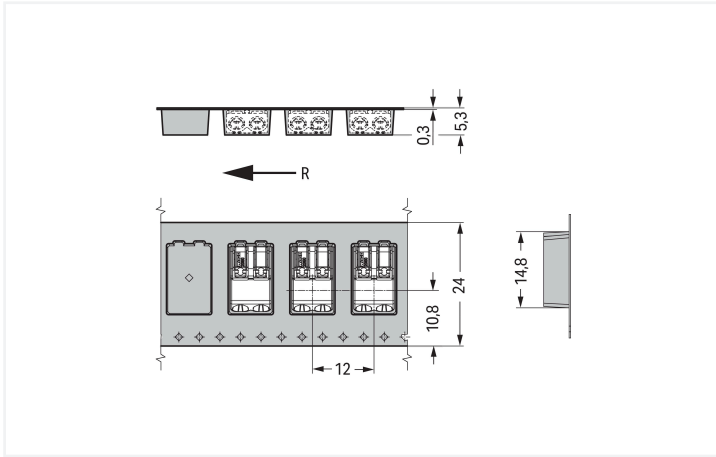


<https://www.wago.com/2060-452/998-604>



Color: ■ white





Dimensions in mm  
R = feed direction

PCB terminal block, 2060 Series, push-button

Connecting conductors is quick and easy with this PCB terminal block (item number 2060-452/998-604). It is a universal connector that can be used almost anywhere, e.g., as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Conductors should only be connected to this PCB terminal block if their strip length is between 7 and 9 mm. This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for any type of conductor. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The item's dimensions are (7.9 x 4.5 x 13.1) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.2 mm<sup>2</sup> to 0.75 mm<sup>2</sup>.

The contact surface is coated with tin. This PCB terminal block is operated with a push-button. The PCB terminal block is designed for SMD soldering. Insert the conductor at a 0° angle.

Notes	
Note	<p>Application notes: Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.</p> <p>Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.</p>
Recommendation	<p>Recommendation for stencil: 150 µm material thickness; Pattern layout identical to solder pad layout</p>

Electrical data				
Ratings per	IEC/EN 60664-1			Ratings
Overvoltage category	III	III	II	Approvals per
Pollution degree	3	2	2	UL 1977
Nominal voltage	63 V	160 V	320 V	Rated voltage
Rated impulse withstand voltage	2.5 kV	2.5 kV	2.5 kV	320 V
Rated current	9 A	9 A	9 A	Rated current
				9 A

## Connection Data

Clamping units	2	<b>Connection 1</b>	
Total number of potentials	2	Connection technology	Push-in CAGE CLAMP®
Number of connection types	1	Actuation type	Push-button
Number of levels	1	Solid conductor	0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG
		Fine-stranded conductor	0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 0.34 mm <sup>2</sup>
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.34 mm <sup>2</sup>
		Strip length	7 ... 9 mm / 0.28 ... 0.35 inches
		Conductor connection direction to PCB	0°
		Pole number	2

## Physical data

Pin spacing	4 mm / 0.157 inches
Width	7.9 mm / 0.311 inches
Height	4.5 mm / 0.177 inches
Depth	13.1 mm / 0.516 inches
Reel diameter of tape-and-reel packaging	380 mm
Tape width	24 mm

## PCB contact

PCB contact	SMD
Solder pin arrangement	over the entire terminal strip (in-line)
Number of solder pins per potential	2

## Material data

Note (material data)	<a href="#">Information on material specifications can be found here</a>
Color	white
Material group	I
Insulation material (main housing)	Polyphthalamide (PPA GF)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact material	Copper alloy
Contact Plating	Tin
Fire load	0.012 MJ
Weight	0.5 g

## Environmental requirements

Limit temperature range	-60 ... +105 °C	<b>Environmental Testing</b>	
		Test specification:	DIN EN 50155 (VDE 0115-200):2022-06
		Railway applications – Rolling stock – Electronic equipment	
		Test procedure:	DIN EN 61373 (VDE 0115-0106):2011-04
		Railway applications – Rolling stock equipment – Vibration and shock tests	
		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 <sub>1</sub> = 5 Hz to f <sub>2</sub> = 150 Hz

## Environmental Testing

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
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)	13500 (1500) pcs
Packaging type	Box
Country of origin	CH
GTIN	4066966483352
Customs tariff number	85369010000

## Product Classification

UNSPSC	39121409
ETIM 9.0	EC001284
ETIM 10.0	EC001284
ECCN	NO US CLASSIFICATION

## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates

### General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL-7843/1
UL Underwriters Laboratories Inc.	UL 1059	E45172

### Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Z00004396.000

## Downloads

### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 2060-452/998-604	<a href="#">↓</a>
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## Documentation

### Additional Information

Technical Section	03.04.2019	pdf 2027.26 KB	<a href="#">↓</a>
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## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Board-to-board link

##### 1.1.1.1 Board-to-board link



[Item No.: 2060-952/028-004](#)  
Board-to-Board Link; Pin spacing 4 mm; 2-pole; Length: 28 mm; black

[Item No.: 2060-952/028-000](#)  
Board-to-Board Link; Pin spacing 4 mm; 2-pole; Length: 28 mm; white

### 1.1.2 Ferrule

#### 1.1.2.1 Ferrule



[Item No.: 216-301](#)  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

[Item No.: 216-131](#)  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored

[Item No.: 216-302](#)  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise

[Item No.: 216-132](#)  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

### 1.1.3 Tool

#### 1.1.3.1 Operating tool



**Item No.: 206-860**

Operating tool; for 2060 Series; multicoloured

**Item No.: 2060-189**

Operating tool; made of insulating material; for 2060 Series; white

## Installation Notes

### Conductor termination



Insert solid conductors via push-in termination.

### Conductor termination



Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860).



Terminal blocks can be arranged side-by-side without loss of poles.