

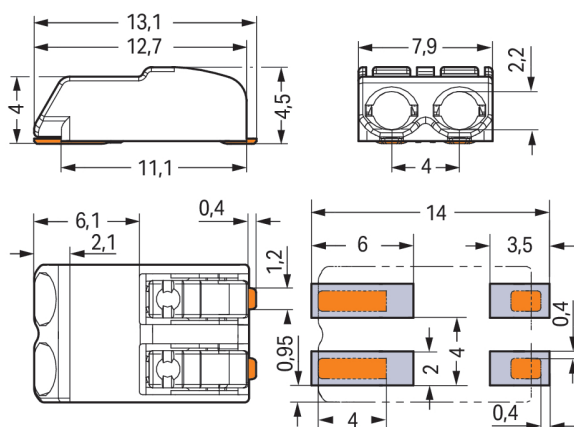
Data Sheet | Item Number: 2060-452/998-404

SMD PCB terminal block; push-button; 0.75 mm²; Pin spacing 4 mm; 2-pole; Push-in
CAGE CLAMP®; in tape-and-reel packaging; white

<https://www.wago.com/2060-452/998-404>

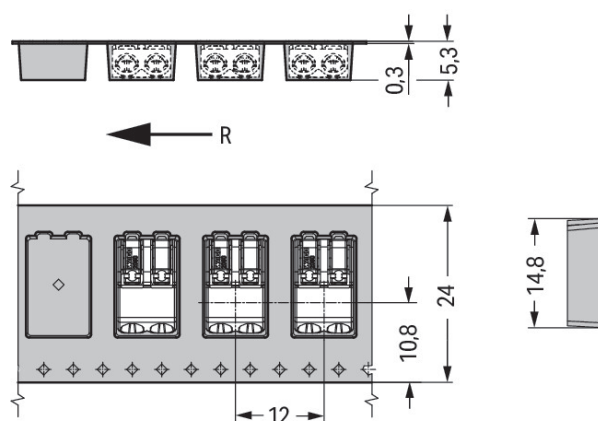


Color: ■ white



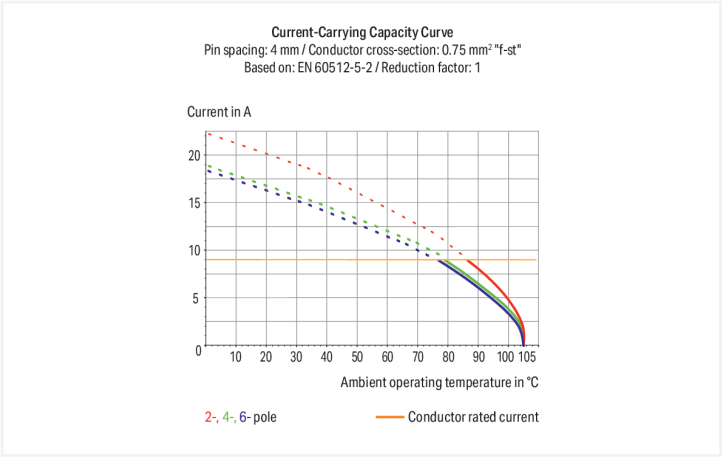
Dimensions in mm

L = (pole no. x pin spacing) – 0.1 mm



Dimensions in mm

R = feed direction



PCB terminal block, 2060 Series, with 4 mm pin spacing

This PCB terminal block (item number 2060-452/998-404) is designed for easy and secure connections. It offers the flexibility needed for different mounting types. This PCB terminal block has a rated voltage of 160 V and can handle currents up to 9 A. Ensure that the strip lengths are between 7 mm and 9 mm when connecting conductors to this PCB terminal block. This product features one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® connection technology is ideal for connecting all conductor types. It allows direct insertion of both solid and fine-stranded conductors with ferrules without needing to use any tools—all thanks to its pluggable design. 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 mm² to 0.75 mm². Up to two potentials / two poles can be connected to this terminal strip using two clamping points on one level. The clamping spring is made of a Copper alloy, the contacts are made of copper alloy, and the white housing is made of polyphthalamide (PPA GF) for insulation. Tin is used for coating the contact surfaces. A push-button is used to operate this PCB terminal block. SMD is used to solder the PCB terminal block. The conductor is designed to be inserted into the board at an angle of 0°..

Notes	
Note	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. Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.
Recommendation	Recommendation for stencil: 150 µm material thickness; Pattern layout identical to solder pad layout



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

Ratings	
Approvals per	UL 1977
Rated voltage	320 V
Rated current	9 A

Connection data		
Clamping units	2	
Total number of potentials	2	
Number of connection types	1	
Number of levels	1	

Connection 1	
Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.2 ... 0.75 mm² / 24 ... 18 AWG
Fine-stranded conductor	0.2 ... 0.75 mm² / 24 ... 18 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 0.34 mm²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 0.34 mm²
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		330 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)	Information on material specifications can be found here
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 MJ
Weight	0.5 g
MSL per J-STD 020D	1



Environmental requirements

Limit temperature range	-60 ... +105 °C	
Environmental Testing		
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	
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	33 (SMT Terminal)
PU (SPU)	9000 (1000) pcs
Packaging type	Box
Country of origin	CH
GTIN	4055143541244
Customs tariff number	85369010000



Product Classification	
UNSPSC	39121409
eCl@ss 10.0	27-14-11-06
eCl@ss 9.0	27-14-11-06
ETIM 9.0	EC001284
ETIM 8.0	EC001284
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
RoHS Compliance Status	Compliant,No Exemption

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60998	NTR NL 7725/M1
CCA DEKRA Certification B.V.	EN 60838	NTR NL 2168246
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL 7843
cURus Underwriters Laboratories Inc.	UL 1977	E45171
KEMA/KEUR DEKRA Certification B.V.	EN 60838	2168246.01
KEMA/KEUR DEKRA Certification B.V.	EN 60947	71-108183
KEMA/KEUR DEKRA Certification B.V.	EN 60998	71-109040
KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-114208

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
Railway WAGO GmbH & Co. KG	-	Z00004396.000
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 2060-452/998-404





Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 2060-452/998-404	

CAE data	
ZUKEN Portal 2060-452/998-404	

PCB Design	
Symbol and Footprint via SamacSys 2060-452/998-404	
Symbol and Footprint via Ultra Librarian 2060-452/998-404	

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 mm² / AWG 24; in-
sulated; electro-tin plated; yellow



[Item No.: 216-131](#)
Ferrule; Sleeve for 0.25 mm² / AWG 24;
uninsulated; electro-tin plated; silver-co-
lored



[Item No.: 216-302](#)
Ferrule; Sleeve for 0.34 mm² / 22 AWG; in-
sulated; electro-tin plated; light turquoise



[Item No.: 216-132](#)
Ferrule; Sleeve for 0.34 mm² / 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.