

Data sheet | Item number: 2060-1452/998-404

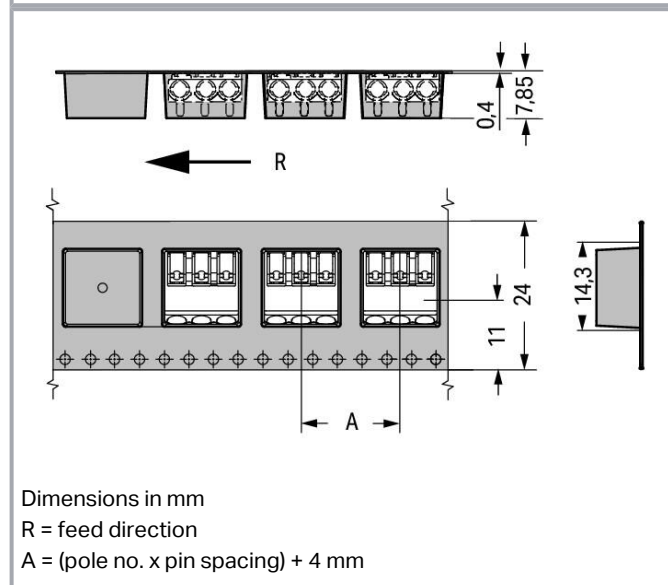
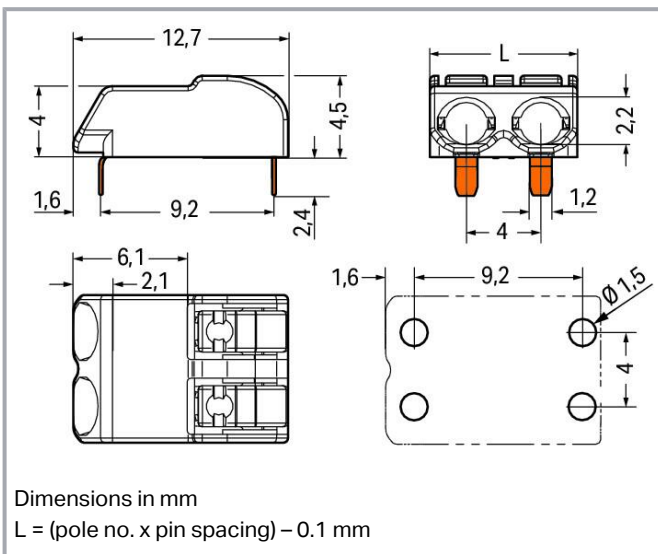
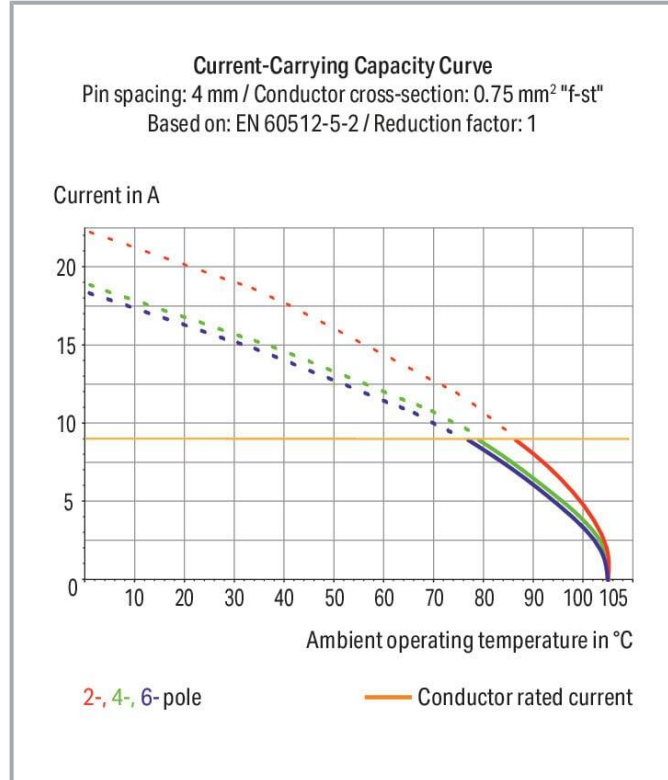
THR PCB terminal block; push-button; 0.75 mm²; Pin spacing 4 mm; 2-pole;
 Push-in CAGE CLAMP®; in tape-and-reel packaging; 0,75 mm²; white



www.wago.com/2060-1452/998-404



Color:



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

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Item description

- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering

Data

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

Stencil hole diameter identical to metal-plated PCB hole outer diameter

Electrical data

Ratings per IEC/EN

| | |
|-------------------------------|----------------|
| Ratings per | IEC/EN 60664-1 |
| Nominal voltage (III/3) | 63 V |
| Rated impulse voltage (III/3) | 2.5 kV |

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| | |
|-------------------------------|---|
| Rated voltage (III/2) | 160 V |
| Rated impulse voltage (III/2) | 2.5 kV |
| Nominal voltage (II/2) | 320 V |
| Rated surge voltage (II/2) | 2.5 kV |
| Rated current | 9 A |
| Legend (ratings) | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

Ratings per UL 1977

| | |
|-------------------------|-------|
| Rated voltage (UL 1977) | 320 V |
| Rated current UL 1977 | 9 A |

Connection data

| | |
|----------------------------|---|
| Connection points | 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 mm ² / 24 ... 18 AWG |
| Fine-stranded conductor | 0.2 ... 0.75 mm ² / 24 ... 18 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 ... 0.34 mm ² |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm ² |
| Strip length | 6 ... 7 mm / 0.24 ... 0.28 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 | 6.9 mm / 0.272 inches |
| Height from the surface | 4.5 mm / 0.177 inches |
| Depth | 12.7 mm / 0.5 inches |
| Solder pin length | 2.4 mm |
| Solder pin dimensions | 1.2 x 0.75 mm |

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| | |
|--|--------------------------|
| Plated through-hole diameter (THR) | 1.5 ^(+0.1) mm |
| Reel diameter of tape-and-reel packaging | 330 mm |
| Tape width | 24 mm |

PCB contact

| | |
|-------------------------------------|--|
| PCB contact | THR |
| 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 | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Copper alloy |
| Contact material | Copper alloy |
| Contact plating | Tin |
| Weight | 0.5 g |
| MSL per J-STD 020D | 1 |

Environmental requirements

| | |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +105 °C |
|-------------------------|-----------------|

Commercial data

| | |
|-----------------------|----------------|
| eCl@ss 10.0 | 27-14-11-06 |
| eCl@ss 9.0 | 27-14-11-06 |
| ETIM 8.0 | EC001284 |
| ETIM 7.0 | EC001284 |
| ECCN | NO DATA |
| PU (SPU) | 6750 (750) pcs |
| Packaging type | box |
| Country of origin | CN |
| GTIN | 4055143331203 |
| Customs tariff number | 85369010000 |

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







Environmental Product Compliance

RoHS Compliance Status

Compliant, No Exemption

Approvals / Certificates

General approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|  | CCA DEKRA Certification B.V. | EN 60947 | NTR NL-7724 |
|  | 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

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

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| Logo | Approval | Additional Approval Text | Certificate name |
|--|--|--------------------------|------------------|
|  | EU-Declaration of Conformity WAGO GmbH & Co. KG | - | - |
|  | UK-Declaration of Conformity WAGO GmbH & Co. KG | - | - |

Optional accessories

| Ferrule | | | |
|--|--|--|--|
| Ferrule | | | |
|  | Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | | www.wago.com/216-132 |
|  | Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored | | www.wago.com/216-131 |
|  | Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | | www.wago.com/216-301 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise | | www.wago.com/216-302 |
| Tool | | | |
| Operating tool | | | |
|  | Item no.: 206-860 Operating tool; for 2060 Series; multicoloured | | www.wago.com/206-860 |
|  | Item no.: 2060-189 Operating tool; made of insulating material; for 2060 Series; white | | www.wago.com/2060-189 |

Downloads

Documentation

Additional Information

| | | | |
|------------------------|------------|-----------------|----------|
| Technical Section | 2019 Apr 3 | pdf 2.1 MB | Download |
| Technical explanations | | | |
| THR Soldering Process | | pdf 548.2 kB | Download |

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CAD/CAE-Data

CAE data

| | | |
|--------------------------------|---------------------|--------------------------|
| ZUKEN Portal 2060-1452/998-404 | URL | Download |
|--------------------------------|---------------------|--------------------------|

CAD data

| | | |
|--------------------------------|---------------------|--------------------------|
| 2D/3D Models 2060-1452/998-404 | URL | Download |
|--------------------------------|---------------------|--------------------------|

Asset Administration Shell

| | | |
|--|---------------------|--------------------------|
| Asset Administration Shell 2060-1452/998-404 | URL | Download |
|--|---------------------|--------------------------|

PCB Design

| | | |
|---|---------------------|--------------------------|
| Symbol and Footprint via SamacSys 2060-1452/998-404 | URL | Download |
|---|---------------------|--------------------------|

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- 3D (stp)
- Altium
- CADSTAR
- Capture
- CircuitStudio
- CR-5000
- CR-8000
- DEHDL
- DesignSpark PCB
- DesignSpark PCB PRO
- DipTrace
- EAGLE
- Easy-PC
- EasyEDA
- eCADSTAR
- KiCad
- OrCAD_Allegro16
- PADS
- Proteus
- Pulsonix

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



- Quadcept
- SOLIDWORKS PCB
- TARGET 3001!
- xDX Designer
- Xpedition

PCB Component Libraries (EDA), PCB CAD Library SamacSys Electronic Component Search Engine

Symbol and Footprint via Ultra Librarian 2060-1452/998-404

[URL](#)

[Download](#)

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

Supported formats:

- Accel EDA 14 & 15
- Altair
- Altium 6 to current version
- Autodesk Fusion 360
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics
- BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design
- Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4

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- Zuken CR-5000 and CR-8000
- Zuken eCADSTAR 2020 and 2021 Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 2060-1452/998-404

[URL](#)

[Download](#)

THR PCB terminal block; push-button; 0.75 mm²; Pin spacing 4 mm; 2-pole; Push-in
CAGE CLAMP®; in tape-and-reel packaging; 0,75 mm²; white

Installation Notes

Conductor termination



Insert solid conductors via push-in termination.

Conductor termination

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



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

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