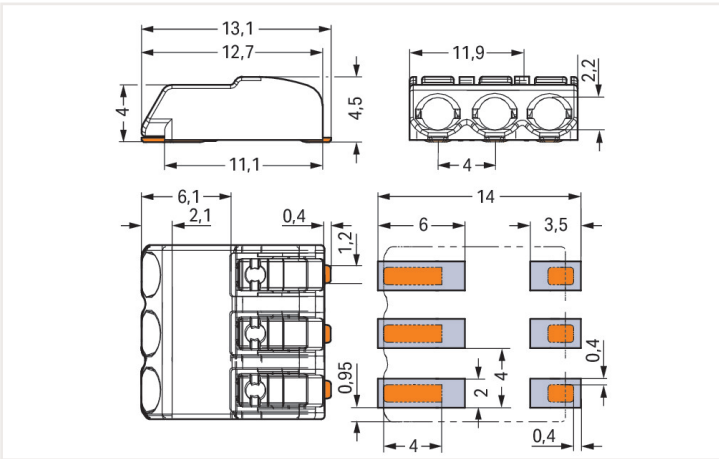


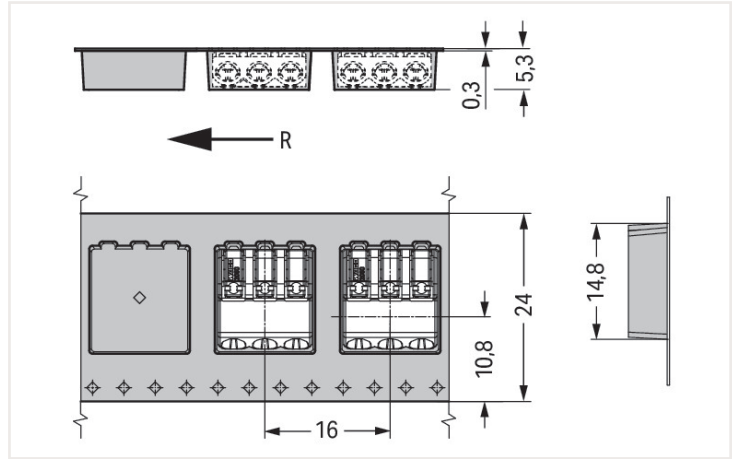
**Data sheet | Item number: 2060-453/998-404**

SMD PCB terminal block; push-button; 0.75 mm<sup>2</sup>; Pin spacing 4 mm; 3-pole; Push-in CAGE CLAMP®; in tape-and-reel packaging; 0,75 mm<sup>2</sup>; white

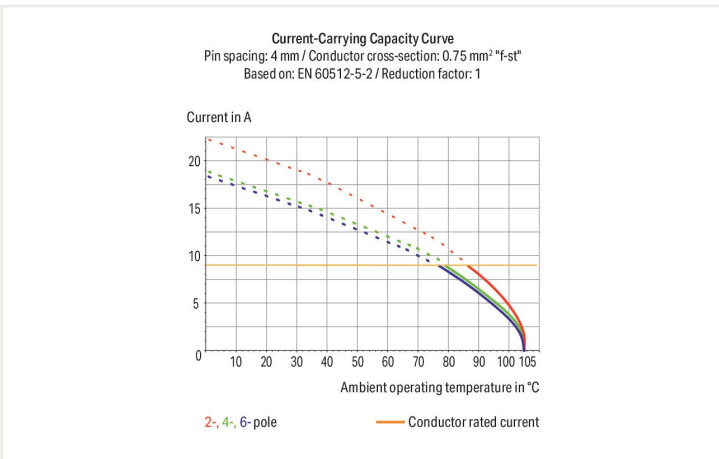
<https://www.wago.com/2060-453/998-404>



Dimensions in mm



Dimensions in mm  
R = feed direction



- SMD 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

## Notes

|                |  |
|----------------|--|
| Note           | <p>Application notes:<br/>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:<br/>150 µm material thickness; Pattern layout identical to solder pad layout</p>  |

## Electrical data

| Ratings per IEC/EN            |   | Ratings per UL          |       |
|-------------------------------|---|-------------------------|-------|
| Ratings per                   | IEC/EN 60664-1  | Rated voltage (UL 1977) | 320 V |
| Nominal voltage (III/3)       | 63 V  | Rated current UL 1977   | 9 A   |
| Rated impulse voltage (III/3) | 2.5 kV  |                         |       |
| 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) Δ Overvoltage category III / Pollution degree 2 |                         |       |

## Connection data

|                                   |   |   |  |
|-----------------------------------|---|---|--|
| Total number of connection points | 3 | <b>Connection 1</b>                               |  |
| Total number of potentials        | 3 | 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                                       | 3  |

## Physical data

|  |                        |
|--|------------------------|
| Pin spacing                              | 4 mm / 0.157 inches    |
| Width                                    | 11.9 mm / 0.469 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                  |

### Plug-in connection

|                                      |     |
|--------------------------------------|-----|
| Plugging without loss of pin spacing | Yes |
|--------------------------------------|-----|

### 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 data can be found here</a> |
| 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  |
| Fire load                   | 0 MJ   |
| Weight                      | 1.1 g  |

### Environmental requirements

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

### Commercial data

|                                     |                      |
|-------------------------------------|----------------------|
| Product Group                       | 33 (Printed Circuit) |
| eCl@ss 10.0                         | 27-14-11-06          |
| eCl@ss 9.0                          | 27-14-11-06          |
| ETIM 8.0                            | EC001284             |
| ETIM 7.0                            | EC001284             |
| PU (SPU)                            | 6750 (750) Stück     |
| Packaging type                      | Box                  |
| Country of origin VKOrg Germany     | CH                   |
| GTIN                                | 4055143135085        |
| Customs tariff number VKOrg Germany | 85369010000          |

### Approvals and certificates

#### Country specific Approvals

CCA CCA CCA CCA  



| Approval                        | Standard     | Certificate name |
|---------------------------------|--------------|------------------|
| CCA<br>DEKRA Certification B.V. | EN 60838     | NTR NL 2168246   |
| CCA<br>DEKRA Certification B.V. | EN 60947     | NTR NL-7724      |
| CCA<br>DEKRA Certification B.V. | EN 60998     | NTR NL 7725/M1   |
| CCA<br>DEKRA Certification B.V. | EN 60947-7-4 | NTR NL 7843      |

#### Country specific Approvals

|                                       |              |            |
|---------------------------------------|--------------|------------|
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60838     | 2168246.01 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947     | 71-108183  |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60998     | 71-109040  |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947-7-4 | 71-114208  |

**UL-Approvals**



| Approval                                   | Standard | Certificate name |
|--|----------|------------------|
| cURus<br>Underwriters Laboratories<br>Inc. | UL 1977  | E45171           |

**Downloads**

**Environmental Product Compliance**

| Compliance Search                                    |
|--|
| Environmental Product Compliance<br>2060-453/998-404 |

**Documentation**

| Additional Information |            |                   |  |
|------------------------|------------|-------------------|--|
| Technical Section      | 03.04.2019 | pdf<br>1949.09 KB |  |

**CAD/CAE-Data**

| CAD data                         |
|----------------------------------|
| 2D/3D Models<br>2060-453/998-404 |

| CAE data                         |
|----------------------------------|
| ZUKEN Portal<br>2060-453/998-404 |

**1 Compatible products**

**1.1 Optional accessories**

**1.1.1 Board-to-board link**

**1.1.1.1 Board-to-board link**



**Item no.: 2060-953/028-000**  
Board-to-Board Link; Pin spacing 4 mm; 3-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

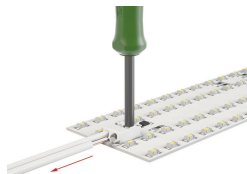
## Installation notes

### 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.