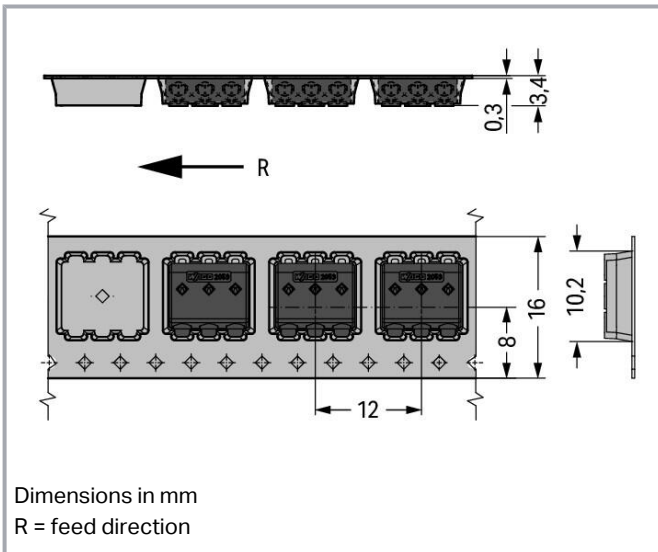
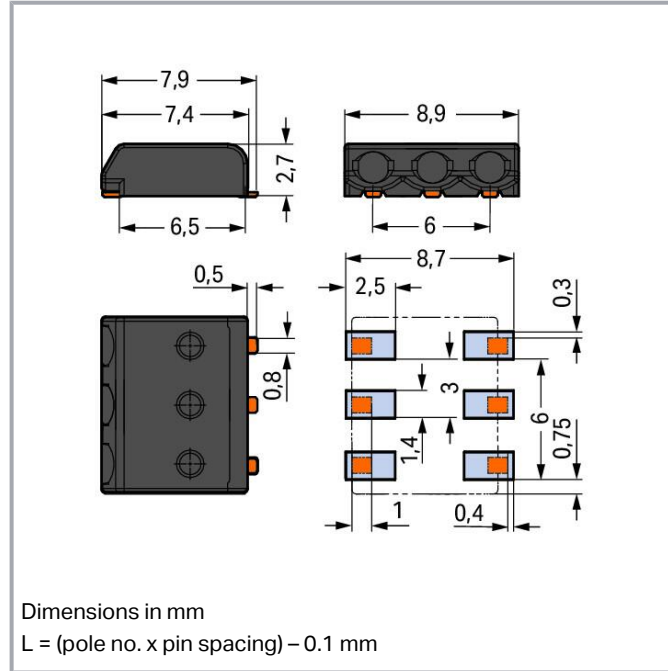


Data sheet | Item number: 2059-323/998-403

SMD PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 3 mm; 3-pole; PUSH WIRE®; in tape-and-reel packaging; 0,50 mm<sup>2</sup>; black



[www.wago.com/2059-323/998-403](http://www.wago.com/2059-323/998-403)



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

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## Item description

- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal via operating tool
- Just 2.7 mm tall
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

## 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; Pattern layout identical to solder pad layout

## 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                 | 3 A   |
| Legend (ratings)              | (III / 2) ≙ Overvoltage category III / Pollution degree 2 |

### Ratings per UL 1977

|                         |       |
|-------------------------|-------|
| Rated voltage (UL 1977) | 250 V |
| Rated current UL 1977   | 3 A   |

### Connection data

|                            |   |
|----------------------------|---|
| Connection points          | 3 |
| Total number of potentials | 3 |
| Number of connection types | 1 |
| Number of levels           | 1 |

### Connection 1

|                                       |  |
|---------------------------------------|--|
| Connection technology                 | PUSH WIRE®   |
| Actuation type                        | Operating tool   |
| Solid conductor                       | 0.14 ... 0.34 mm <sup>2</sup> / 26 ... 22 AWG  |
| Note (conductor cross-section)        | For conductors (26 AWG) that are not rigid enough, the clamping unit must be opened using an operating tool. |
| Strip length                          | 4 ... 5.5 mm / 0.16 ... 0.22 inches  |
| Conductor connection direction to PCB | 0 °  |
| Pole number                           | 3  |

### Connection 2

|                                  |   |
|----------------------------------|---|
| Solid conductor 2                | 0.5 mm <sup>2</sup> / 20 AWG  |
| Note (conductor cross-section) 2 | No reconnection of smaller conductor cross-sections (0.5 mm <sup>2</sup> /20 AWG) |
| Strip length 2                   | 6 ... 7.5 mm / 0.24 ... 0.3 inches  |

### Physical data

|             |                      |
|-------------|----------------------|
| Pin spacing | 3 mm / 0.118 inches  |
| Width       | 8.9 mm / 0.35 inches |

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



|  |                       |
|--|-----------------------|
| Height                                   | 2.7 mm / 0.106 inches |
| Depth                                    | 7.9 mm / 0.311 inches |
| Reel diameter of tape-and-reel packaging | 330 mm                |
| Tape width                               | 16 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                       | black  |
| Material group              | I  |
| Insulation material         | Polyphthalamide (PPA GF)                                 |
| Flammability class per UL94 | V0   |
| Contact material            | Copper alloy   |
| Contact plating             | Tin  |
| Fire load                   | 0.004 MJ   |
| Weight                      | 0.2 g  |

**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)              | 21000 (1750) pcs |
| Packaging type        | box              |
| Country of origin     | CH               |
| GTIN                  | 4055143476515    |
| Customs tariff number | 85369010000      |

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## Environmental Product Compliance

RoHS Compliance Status







Compliant, No Exemption

## Approvals / Certificates

### General approvals

| Logo   | Approval                              | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------|
|    | CCA<br>DEKRA Certification B.V.       | EN 60947-7-4             | NTR NL-7819      |
|    | CCA<br>DEKRA Certification B.V.       | EN 60947-7-4             | 71-111131        |
|    | CCA<br>DEKRA Certification B.V.       | EN 60838                 | NTR NL-7720      |
|  | KEMA/KEUR<br>DEKRA Certification B.V. | EN 60838                 | 71-106226        |

## Counterpart

|  |  |  |
|--|--|--|
|  | <b>Item no.2059-903</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 15.3 mm; white         | <a href="http://www.wago.com/2059-903">www.wago.com/2059-903</a>                 |
|  | <b>Item no.2059-903/018-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 17.5 mm; white | <a href="http://www.wago.com/2059-903/018-000">www.wago.com/2059-903/018-000</a> |
|  | <b>Item no.2059-903/021-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 20.5 mm; white | <a href="http://www.wago.com/2059-903/021-000">www.wago.com/2059-903/021-000</a> |
|  | <b>Item no.2059-904</b><br>Board-to-Board Link; Pin spacing 3 mm; 4-pole; Length: 15.3 mm; white         | <a href="http://www.wago.com/2059-904">www.wago.com/2059-904</a>                 |
|  | <b>Item no.2059-904/021-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 4-pole; Length: 20.5 mm; white | <a href="http://www.wago.com/2059-904/021-000">www.wago.com/2059-904/021-000</a> |
|  | <b>Item no.2059-904/018-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 4-pole; Length: 17.5 mm; white | <a href="http://www.wago.com/2059-904/018-000">www.wago.com/2059-904/018-000</a> |

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## Optional accessories

### Tool

|  |   |  |
|--|---|--|
| Operating tool   |   |  |
|  | <b>Item no.: 206-859</b><br>Operating tool; for 2059 Series; multicoloured                | <a href="http://www.wago.com/206-859">www.wago.com/206-859</a>   |
|  | <b>Item no.: 2059-189</b><br>Operating tool; made of insulating material; for 2059 Series | <a href="http://www.wago.com/2059-189">www.wago.com/2059-189</a> |

### Board-to-board link

|  |  |  |
|--|--|--|
| Board-to-board link  |  |  |
|  | <b>Item no.: 2059-903</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 15.3 mm; white         | <a href="http://www.wago.com/2059-903">www.wago.com/2059-903</a>                 |
|  | <b>Item no.: 2059-903/018-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 17.5 mm; white | <a href="http://www.wago.com/2059-903/018-000">www.wago.com/2059-903/018-000</a> |
|  | <b>Item no.: 2059-903/021-000</b><br>Board-to-Board Link; Pin spacing 3 mm; 3-pole; Length: 20.5 mm; white | <a href="http://www.wago.com/2059-903/021-000">www.wago.com/2059-903/021-000</a> |

## Downloads

### Documentation

#### Additional Information

|                        |            |        |          |
|------------------------|------------|--------|----------|
| Technical Section      | 2019 Apr 3 | pdf    | Download |
| Technical explanations |            | 2.1 MB |          |

## CAD/CAE-Data

### CAD data

|                               |     |          |
|-------------------------------|-----|----------|
| 2D/3D Models 2059-323/998-403 | URL | Download |
|-------------------------------|-----|----------|

### Asset Administration Shell

|   |     |          |
|---|-----|----------|
| Asset Administration Shell 2059-323/998-403 | URL | Download |
|---|-----|----------|

### PCB Design

|   |     |          |
|---|-----|----------|
| Symbol and Footprint via Ultra Librarian 2059-323/998-403 | URL | Download |
|---|-----|----------|

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



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

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

---

Symbol and Footprint via SamacSys 2059-323/998-403

[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:

—

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

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

---

## Environmental Product Compliance

### Compliance Search

| Environmental Product Compliance 2059-323/998-403  | URL | Download |
|--|-----|----------|
| SMD PCB terminal block; 0.5 mm <sup>2</sup> ; Pin spacing 3 mm; 3-pole; PUSH WIRE®; in tape-and-reel packaging; 0,50 mm <sup>2</sup> ; black |     |          |

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## Installation Notes

### Conductor termination



Insert solid conductors via push-in termination.

### Conductor termination



Easy conductor removal, e.g., via operating tool (Item No. 206-859) or "twist & pull" (max. 10 x, no reconnection of smaller conductors possible)

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