

Data sheet | Item number: 2059-322/998-403

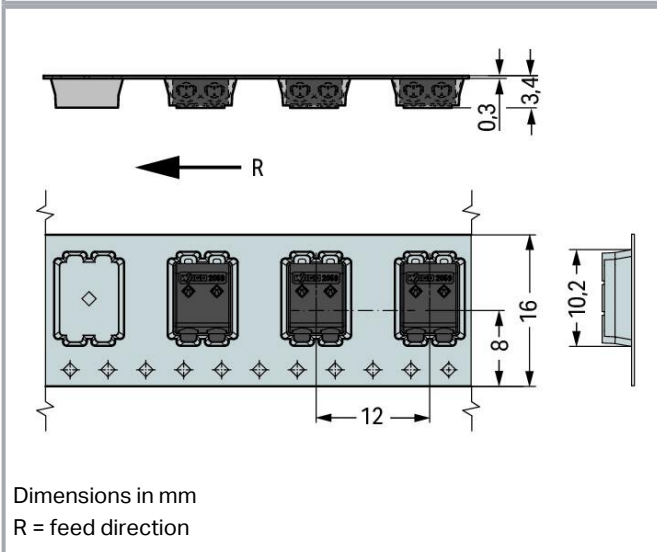
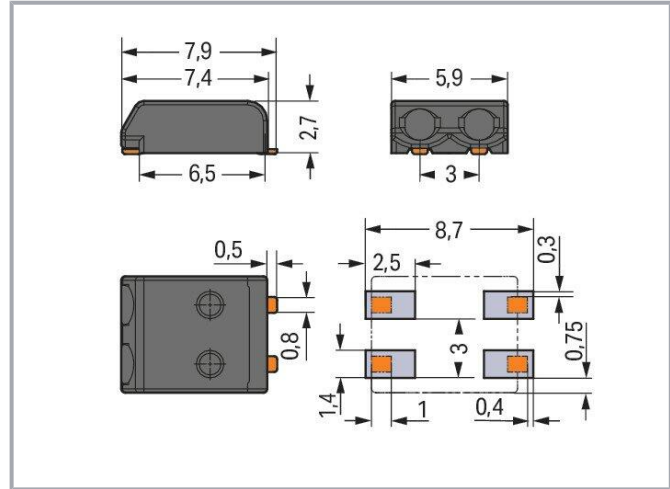
SMD PCB terminal block; 0.5 mm<sup>2</sup>; Pin spacing 3 mm; 2-pole; PUSH WIRE®; in tape-and-reel packaging; 0,50 mm<sup>2</sup>; black



[www.wago.com/2059-322/998-403](http://www.wago.com/2059-322/998-403)



Color: ■



## Item description

- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors
- Easy conductor removal via operating tool

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

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- 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.

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#### Recommendation

#### Recommendation for stencil:

150 µm material thickness; Pattern layout identical to solder pad layout

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## 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
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

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## Ratings per UL 1977

Rated voltage (UL 1977)	250 V
Rated current UL 1977	3 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 WIRE <sup>®</sup>
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	2

## 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	5.9 mm / 0.232 inches
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

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**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	0.002 MJ
Weight	0.2 g

**Environmental requirements**

Limit temperature range	-60 ... +105 °C
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**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	4055143476560
Customs tariff number	85369010000

**Environmental Product Compliance**

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

### General approvals



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

### Counterpart

	<b>Item no.2059-902</b> Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 15.3 mm; white	<a href="http://www.wago.com/2059-902">www.wago.com/2059-902</a>
	<b>Item no.2059-902/018-000</b> Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 17.5 mm; white	<a href="http://www.wago.com/2059-902/018-000">www.wago.com/2059-902/018-000</a>
	<b>Item no.2059-902/021-000</b> Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 20.5 mm; white	<a href="http://www.wago.com/2059-902/021-000">www.wago.com/2059-902/021-000</a>

### Optional accessories

#### Board-to-board link

	<b>Item no.: 2059-902/018-000</b> Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 17.5 mm; white	<a href="http://www.wago.com/2059-902/018-000">www.wago.com/2059-902/018-000</a>
	<b>Item no.: 2059-902/021-000</b> Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 20.5 mm; white	<a href="http://www.wago.com/2059-902/021-000">www.wago.com/2059-902/021-000</a>

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**Item no.: 2059-902**  
Board-to-Board Link; Pin spacing 3 mm; 2-pole; Length: 15.3 mm; white

[www.wago.com/2059-902](http://www.wago.com/2059-902)

#### Tool

Operating tool



**Item no.: 206-859**  
Operating tool; for 2059 Series; multicoloured

[www.wago.com/206-859](http://www.wago.com/206-859)



**Item no.: 2059-189**  
Operating tool; made of insulating material; for 2059 Series

[www.wago.com/2059-189](http://www.wago.com/2059-189)

## Downloads

### Documentation

#### Additional Information

Technical Section	2019 Apr 3	pdf	Download
Technical explanations		2.1 MB	

## CAD/CAE-Data

### CAD data

2D/3D Models 2059-322/998-403	URL	Download
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### Asset Administration Shell

Asset Administration Shell 2059-322/998-403	URL	Download
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### PCB Design

Symbol and Footprint via SamacSys 2059-322/998-403	URL	Download
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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

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- 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

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Symbol and Footprint via Ultra Librarian 2059-322/998-403

[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:

- 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

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- 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

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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 2059-322/998-403	URL	Download
SMD PCB terminal block; 0.5 mm <sup>2</sup> ; Pin spacing 3 mm; 2-pole; PUSH WIRE®; in tape-and-reel packaging; 0,50 mm <sup>2</sup> ; black		

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## Installation Notes

### Conductor termination

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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)

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