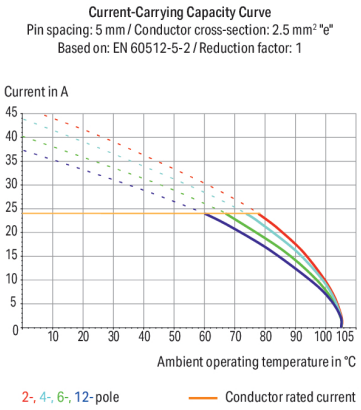
# Data Sheet | Item Number: 254-459

PCB terminal block; 2.5 mm²; Pin spacing 5/5.08 mm; 9-pole; PUSH WIRE®; gray

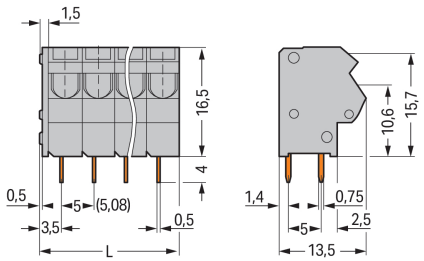
https://www.wago.com/254-459






Color: gray

Similar to illustration




Dimensions in mm
L = (pole no. x pin spacing) + 1.5 mm

PCB terminal block, 254 Series, gray

Our PCB terminal block (item number 254-459) ensures effortless electrical installations. You can count on tried and tested safety with these PCB terminal blocks, perfect for a host of applications when designing your devices. Conductors can only be connected to this PCB terminal block if their strip length is between 10 and 12 mm . Featuring one conductor terminal along with PUSH WIRE®, this connector is highly versatile. Our PUSH WIRE® connection is the quick and simple method for connecting solid conductors. The dimensions are (46.5 x 19.7 x 13.5) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.5 mm² to 2.5 mm².

The contact surface is coated with tin. This PCB terminal block is operated with an operating tool. THT is used to assemble the PCB terminal block. Insert the conductor at an angle of 45°..

## Notes

| | |
|---|---|
| Variants: | Other pole numbers<br>Other colors<br>Mixed-color PCB connector strips<br>Direct marking<br>Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/. |

## Electrical data

| Ratings per | IEC/EN 60664-1 | | |
|---|---|---|---|
| Overvoltage category | III | III | II |
| Pollution degree | 3 | 2 | 2 |
| Nominal voltage | 320 V | 320 V | 630 V |
| Rated impulse withstand voltage | 4 kV | 4 kV | 4 kV |
| Rated current | 24 A | 24 A | 24 A |

| Approvals per | UL 1059 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A | - | 10 A |

| Approvals per | CSA | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A | - | 10 A |

## Connection Data

| | |
|---|---|
| Clamping units | 9 |
| Total number of potentials | 9 |
| Number of connection types | 1 |
| Number of levels | 1 |

### Connection 1

| | |
|---|---|
| Connection technology | PUSH WIRE® |
| Actuation type | Operating tool |
| Solid conductor | 0.5 … 2.5 mm² / 20 … 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.5 … 1.5 mm² |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 … 1.5 mm² |
| Note (conductor cross-section) | 12 AWG: THHN, THWN |
| Strip length | 10 … 12 mm / 0.39 … 0.47 inches |
| Conductor connection direction to PCB | 45 ° |
| Pole number | 9 |

## Physical data

| | |
|---|---|
| Pin spacing | 5/5.08 mm / 0.197/0.2 inches |
| Width | 46.5 mm / 1.831 inches |
| Height | 19.7 mm / 0.776 inches |
| Height from the surface | 15.7 mm / 0.618 inches |
| Depth | 13.5 mm / 0.531 inches |
| Solder pin length | 4 mm |
| Solder pin dimensions | 0.5 x 0.75 mm |
| Drilled hole diameter | 1.1 $^{(+0.1)}$ mm |


Continued on next page

## PCB contact

| | |
|---|---|
| PCB contact | THT |
| 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 | gray |
| Material group | I |
| Insulation material (main housing) | Polyamide (PA66) |
| Flammability class per UL94 | V0 |
| Clamping spring material | Chrome-nickel spring steel (CrNi) |
| Contact material | Electrolytic copper ($E_{Cu}$) |
| Contact Plating | Tin |
| Fire load | 0.149 MJ |
| Weight | 9.6 g |

## Environmental requirements

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

## Commercial data

| | |
|---|---|
| Product Group | 4 (Printed Circuit Connectors) |
| PU (SPU) | 100 (25) pcs |
| Packaging type | Box |
| Country of origin | PL |
| GTIN | 4044918940672 |
| Customs tariff number | 85369010000 |

## Product Classification

| | |
|---|---|
| UNSPSC | 39121409 |
| eCl@ss 10.0 | 27-44-04-01 |
| eCl@ss 9.0 | 27-44-04-01 |
| ETIM 9.0 | EC002643 |
| ETIM 10.0 | EC002643 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| RoHS Compliance Status | Compliant,No Exemption |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | EN 60947 | NTR NL-7770 |
| CSA<br>DEKRA Certification B.V. | C22.2 | 70154033 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 71-109997 |

### General approvals

| | | |
|---|---|---|
| UR<br>Underwriters Laboratories Inc. | UL 1059 | E45172 |


Continued on next page

## Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | - | 24-0095975-PDA |
| BV<br>Bureau Veritas S.A. | IEC 60998 | 11915/E0 BV |
| DNV<br>DNV GL SE | - | TAE000016Z |
| PRS<br>Polski Rejestr Statków | - | TE/1095/880590/23 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 254-459

### Documentation

**Additional Information**

| | | |
|---|---|---|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models 254-459

**CAE data**

EPLAN Data Portal 254-459

ZUKEN Portal 254-459

**PCB Design**

Symbol and Footprint via SamacSys 254-459

Symbol and Footprint via Ultra Librarian 254-459


Continued on next page

# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Ferrule

#### 1.1.1.1 Ferrule



Item No.: 216-241
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white



Item No.: 216-141
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-242
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-262
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray



Item No.: 216-142
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-243
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-263
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red



Item No.: 216-143
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92



Item No.: 216-244
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-264
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

### 1.1.2 Marking

#### 1.1.2.1 Marking strip



Item No.: 210-332/500-202
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/508-202
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/500-205
Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/508-205
Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/500-204
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/508-204
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/500-206
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/508-206
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

### 1.1.3 Test and measurement

#### 1.1.3.1 Testing accessories



Item No.: 210-136
Test plug; 2 mm Ø; with 500 mm cable; red


Continued on next page

## 1.1.4 Tool

### 1.1.4.1 Operating tool



Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



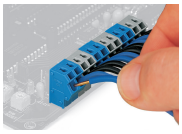
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



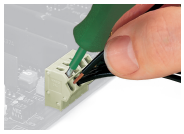
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation Notes

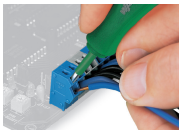
### Conductor termination



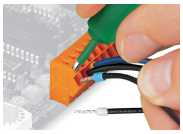
Insert solid conductors via push-in termination.



Inserting a tip-bonded conductor via screwdriver.

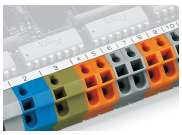


Removing a solid conductor.



Inserting/removing a ferruled conductor.

### Marking

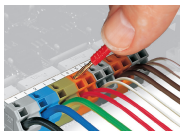


Labeling via self-adhesive marking strips.



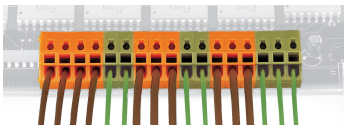
Labeling via factory direct marking.

### Testing

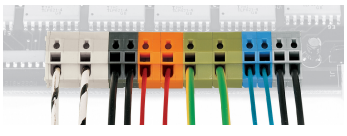


Testing with 2 mm Ø test plug.

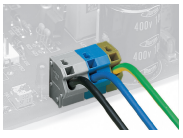
### Application



Mixed terminal strips can be assembled using different housing colors for the formation of groups.



Mixed terminal strips can be assembled using different pin spacing and housing colors for the formation of groups.



Application example: field-wiring terminal strip