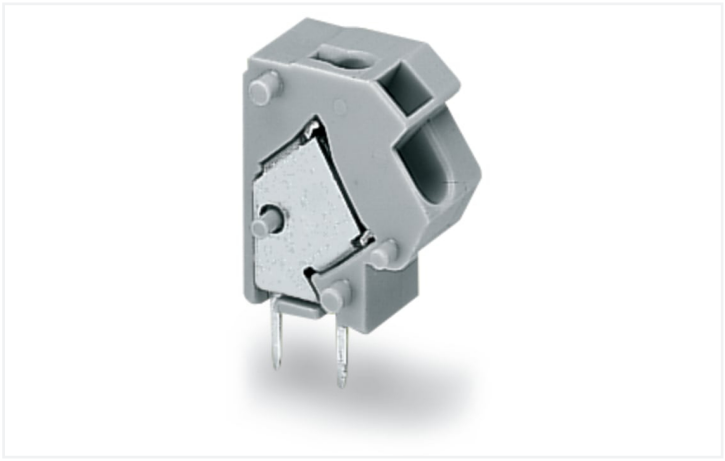
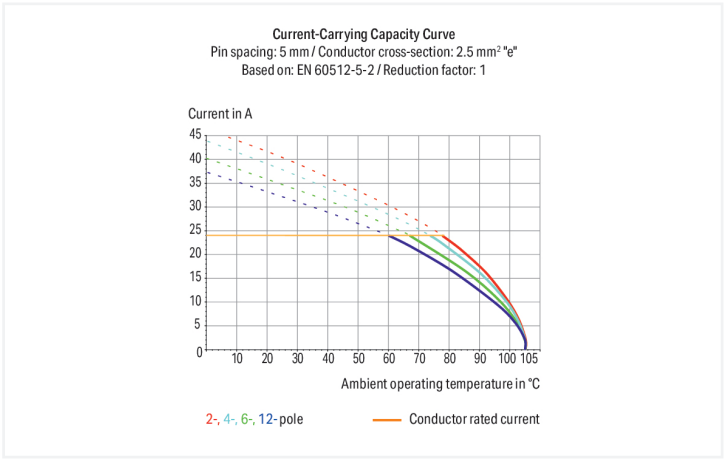
# Data Sheet | Item Number: 254-856

Stackable PCB terminal block; 2.5 mm²; Pin spacing 7.5/7.62 mm; 1-pole; PUSH WIRE®; orange

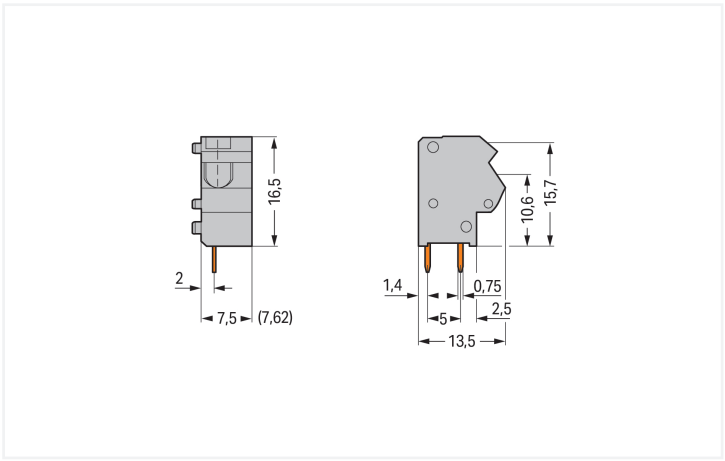
https://www.wago.com/254-856






Color: orange

Similar to illustration




Dimensions in mm

PCB terminal block, 254 Series, orange

Our PCB terminal block (item number 254-856) simplifies electrical installations. It is a universal connector that can be used almost anywhere, e.g., as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Ensure that the strip lengths are between 10 and 12 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with PUSH WIRE®, this product delivers reliable performance. Our proven PUSH WIRE® connection offers the fastest method for clamping conductors. It utilizes the conductor's stiffness to overcome the clamping spring's contact force. Dimensions: (9.2 x 19.7 x 13.5) mm (width x height x depth). Depending on the conductor type, 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. The PCB terminal block is designed for THT soldering. Insert the conductor into the board at an angle of 45°..

## Notes

| | |
|---|---|
| Variants: | Other colors<br>Versions for Ex i<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 | 500 V | 630 V | 1000 V |
| Rated impulse withstand voltage | 6 kV | 6 kV | 6 kV |
| Rated current | 24 A | 24 A | 24 A |

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

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

## Connection Data

| | |
|---|---|
| Clamping units | 1 |
| Total number of potentials | 1 |
| 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 | 1 |

## Physical data

| | |
|---|---|
| Pin spacing | 7.5/7.62 mm / 0.295/0.3 inches |
| Width | 9.2 mm / 0.362 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 |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## PCB contact

| | |
|---|---|
| PCB contact | THT |
| Solder pin arrangement | within the terminal block (in-line) |
| Number of solder pins per potential | 2 |

## Material data

| | |
|---|---|
| Note (material data) | Information on material specifications can be found here |
| Color | orange |
| 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 | 0.022 MJ |
| Weight | 1.4 g |

## Environmental requirements

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

## Commercial data

| | |
|---|---|
| Product Group | 4 (Printed Circuit Connectors) |
| PU (SPU) | 400 (100) pcs |
| Packaging type | Box |
| Country of origin | PL |
| GTIN | 4044918943048 |
| 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>CSA Group | C22.2 | 70154033 |
| KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947 | 71-109997 |

### General approvals

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


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## Approvals for marine applications



| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | - | 24-0095975-PDA |
| DNV<br>DNV GL SE | - | TAE000016Z |
| PRS<br>Polski Rejestr Statków | - | TE/1095/880590/23 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 254-856

### Documentation

**Additional Information**

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

### CAD/CAE-Data

**CAD data**

2D/3D Models 254-856

**CAE data**

EPLAN Data Portal 254-856

ZUKEN Portal 254-856

**PCB Design**

Symbol and Footprint via SamacSys 254-856

Symbol and Footprint via Ultra Librarian 254-856

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# 1 Compatible Products

## 1.1 Required Accessories

### 1.1.1 End plate

#### 1.1.1.1 End plate



Item No.: 254-400
End plate; 1 mm thick; snap-fit type; blue



Item No.: 254-200
End plate; 1 mm thick; snap-fit type; dark gray



Item No.: 254-100
End plate; 1 mm thick; snap-fit type; gray



Item No.: 254-300
End plate; 1 mm thick; snap-fit type; light gray



Item No.: 254-700
End plate; 1 mm thick; snap-fit type; light green



Item No.: 254-600
End plate; 1 mm thick; snap-fit type; orange

## 1.2 Optional Accessories

### 1.2.1 Ferrule

#### 1.2.1.1 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

### 1.2.2 Marking

#### 1.2.2.1 Marking strip



Item No.: 210-332/750-020
Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white



Item No.: 210-332/762-020
Marking strips; as a DIN A4 sheet; MARKED; 1-20 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white


Continued on next page

### 1.2.3 Test and measurement

#### 1.2.3.1 Testing accessories



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

### 1.2.4 Tool

#### 1.2.4.1 Operating tool



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



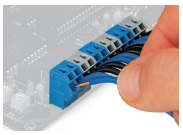
Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



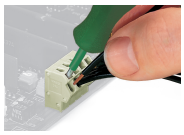
Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

## Installation Notes

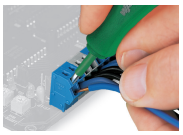
### Conductor termination



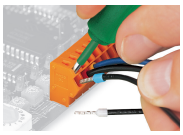
Insert solid conductors via push-in termination.



Inserting a tip-bonded conductor via screwdriver.

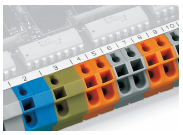


Removing a solid conductor.



Inserting/removing a ferruled conductor.

### Marking

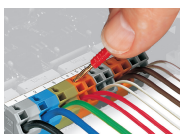


Labeling via self-adhesive marking strips.



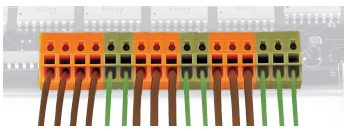
Labeling via factory direct marking.

### Testing

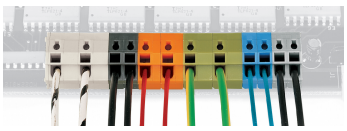


Testing with 2 mm Ø test plug.

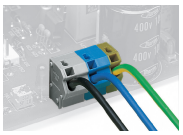
## Application



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