

Data Sheet | Item Number: 250-410

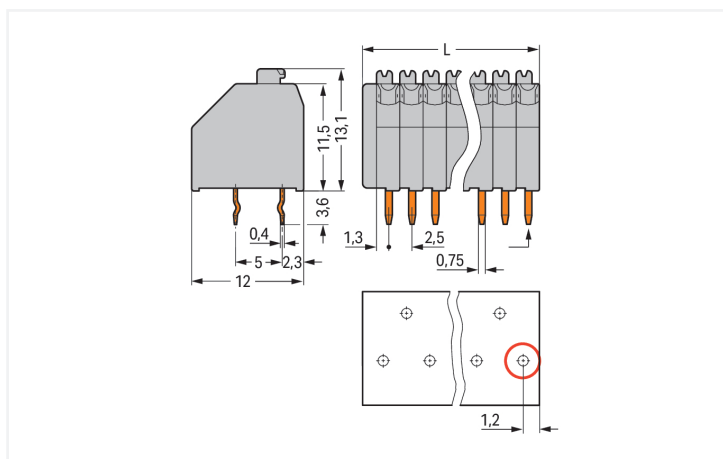
PCB terminal block; push-button; 0.5 mm²; Pin spacing 2.5 mm; 10-pole; Push-in CAGE CLAMP®; gray

<https://www.wago.com/250-410>



Color: ■ gray

Similar to illustration



Dimensions in mm

L = (pole no. x pin spacing) + 1.5 mm First solder pin, front right (red circle)

PCB terminal block, 250 Series, 45 °conductor entry to board

Our PCB terminal block (item number 250-410) makes connecting wires quick and easy. It offers the flexibility needed for different mounting types. Ensure that the strip lengths are between 8.5 and 9.5 mm when connecting conductors to this PCB terminal block. This product incorporates one conductor terminal and utilizes Push-in CAGE CLAMP®. Push-in CAGE CLAMP® technology provides a universal connection solution for all conductor types. It allows both solid and fine-stranded conductors with ferrules to be inserted directly into the clamping point without the need for tools. The item's dimensions are (26.5 x 16.7 x 12) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.14 mm² to 0.5 mm². Tin is used for coating the contact surfaces. This PCB terminal block is operated with a push-button. The PCB terminal block is designed for THT soldering. Insert the conductor into the board at a 45° angle.

Notes

| | |
|-----------|--|
| Variants: | Other pole numbers Other colors Mixed-color PCB connector strips Terminal strips with spacers Direct marking 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 | | | Approvals per | UL 1059 | | |
|---------------------------------|----------------|--------|--------|---------------|---------|---|-------|
| Overvoltage category | III | III | II | Use group | B | C | D |
| Pollution degree | 3 | 2 | 2 | Rated voltage | 300 V | - | 300 V |
| Nominal voltage | 160 V | 160 V | 320 V | Rated current | 5 A | - | 5 A |
| Rated impulse withstand voltage | 2.5 kV | 2.5 kV | 2.5 kV | | | | |
| Rated current | 4 A | 4 A | 4 A | | | | |

| Approvals per | CSA | | |
|---------------|-------|---|-------|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 5 A | - | 5 A |

Connection Data

| | | | |
|----------------------------|----|---------------------------------------|--|
| Clamping units | 10 | Connection 1 | |
| Total number of potentials | 10 | Connection technology | Push-in CAGE CLAMP® |
| Number of connection types | 1 | Actuation type | Push-button |
| Number of levels | 1 | Solid conductor | 0.14 ... 0.5 mm ² / 24 ... 20 AWG |
| | | Fine-stranded conductor | 0.2 ... 0.5 mm ² / 24 ... 20 AWG |
| | | Conductor diameter | 0.4 ... 0.8 mm / 24 ... 20 AWG |
| | | Strip length | 8.5 ... 9.5 mm / 0.33 ... 0.37 inches |
| | | Conductor connection direction to PCB | 45 ° |
| | | Pole number | 10 |

Physical data

| | |
|-------------------------|--------------------------|
| Pin spacing | 2.5 mm / 0.098 inches |
| Width | 26.5 mm / 1.043 inches |
| Height | 16.7 mm / 0.657 inches |
| Height from the surface | 13.1 mm / 0.516 inches |
| Depth | 12 mm / 0.472 inches |
| Solder pin length | 3.6 mm |
| Solder pin dimensions | 0.4 x 0.75 mm |
| ! | 1.1 ^(+0.1) mm |

PCB contact

| | |
|-------------------------------------|--|
| PCB contact | THT |
| Solder pin arrangement | over the entire terminal strip (staggered) |
| Number of solder pins per potential | 1 |

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 | Copper alloy |
| Contact Plating | Tin |
| Fire load | 0.086 MJ |
| Weight | 3.7 g |

Environmental requirements

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

Commercial data

| | |
|-----------------------|--------------------------------|
| Product Group | 4 (Printed Circuit Connectors) |
| PU (SPU) | 180 (45) pcs |
| Packaging type | Box |
| Country of origin | CH |
| GTIN | 4044918643054 |
| 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 DEKRA Certification B.V. | EN 60947 | NTR NL 7833/2 |
| CCA DEKRA Certification B.V. | EN 60998 | NTR NL-7705/1 |

General approvals

| | | |
|---------------------------------------|--------------|------------|
| CSA DEKRA Certification B.V. | C22.2 | 1132097 |
| DEKRA DEKRA Certification B.V. | EN 60947-7-4 | 71-141963 |
| KEMA/KEUR DEKRA Certification B.V. | EN 60947 | 2160584.18 |
| KEMA/KEUR DEKRA Certification B.V. | EN 60998 | 71-124629 |
| UL UL International Germany GmbH | UL 1059 | E45172 |

Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|----------|------------------|
| EU-Declaration of Confor- mity WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Confor- mity WAGO GmbH & Co. KG | - | - |

Approvals for marine applications



| Approval | Standard | Certificate Name |
|---|----------|------------------|
| ABS American Bureau of Ship- ping | - | 24-0095975-PDA |
| DNV DNV GL SE | - | TAE000016Z |

Downloads

Environmental Product Compliance

| Compliance Search |
|---|
| Environmental Product Compliance 250-410 |

Documentation

| Additional Information |
|---|
| Technical Section 03.04.2019 pdf 2027.26 KB |

CAD/CAE-Data

| CAD data |
|----------------------|
| 2D/3D Models 250-410 |

| CAE data |
|------------------------------|
| EPLAN Data Portal 250-410 |
| ZUKEN Portal 250-410 |

PCB Design

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|--|
| Symbol and Footprint via SamacSys 250-410 |
| Symbol and Footprint via Ultra Librarian 250-410 |

1 Compatible Products

1.1 Optional Accessories

1.1.1 Marking

1.1.1.1 Marking strip



Item No.: 210-331/250-202

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-331/250-207

Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-331/250-204

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

Item No.: 210-331/250-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive; white

1.1.2 Test and measurement

1.1.2.1 Testing accessories



Item No.: 735-500

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 6 mm uninsulated; Test lead for soldering up to 0,5mm²

1.1.3 Tool

1.1.3.1 Operating tool



Item No.: 210-719

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

Item No.: 210-647

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft; multicoloured

Installation Notes



A groove at the back of the terminal strip differentiates between the two pin spacings.

Conductor termination



Inserting solid conductors via push-in termination.
Inserting fine-stranded conductors via push-buttons, 250 Series – 3.5 mm pin spacing.

Conductor termination



Space-saving wiring, 250 Series – 5 mm pin spacing.

Testing

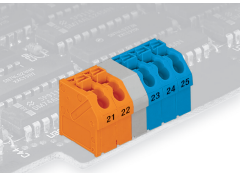


Testing with 11 mm Ø test pin, on the conductor, 250 Series – 2.5 ... 3.5 mm pin spacing.

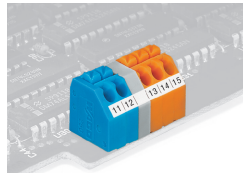


Testing with 2 mm Ø test plug, touch contact, 250 Series – 5 mm pin spacing.

Marking



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.



Labeling via self-adhesive strips or direct marking. Mixed-color terminal strips (with or without spacer) are available upon request.