

## Data Sheet | Item Number: 250-413

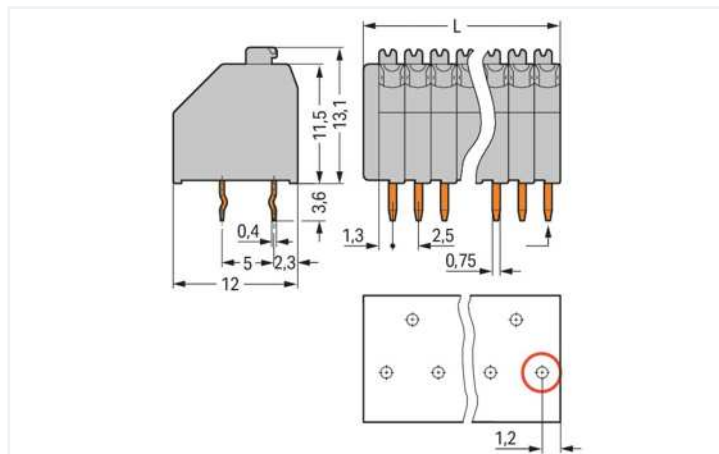
PCB terminal block; push-button; 0.5 mm<sup>2</sup>; Pin spacing 2.5 mm; 13-pole; Push-in  
CAGE CLAMP®; 0,50 mm<sup>2</sup>; gray

<https://www.wago.com/250-413>



Color: ■ gray

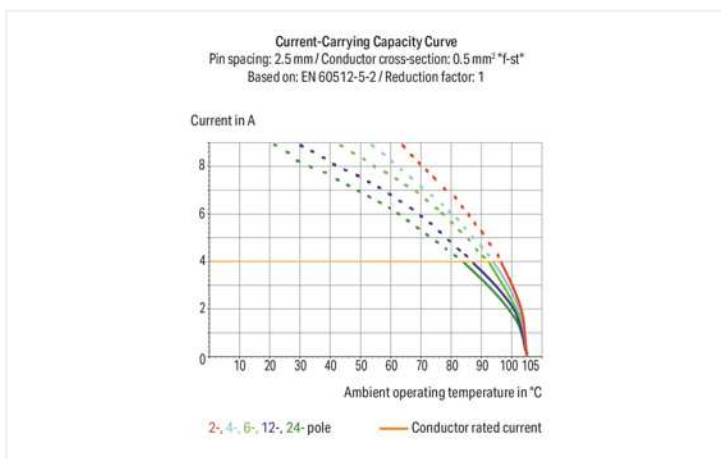
Similar to illustration



Dimensions in mm

$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

First solder pin, front right (red circle)



- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

### 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

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	160 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	4 A
Legend (ratings)	(III / 2) $\triangle$ Overvoltage category III / Pollution degree 2

### Ratings per UL 1059

Approvals per	UL 1059
Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	5 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	5 A

### Ratings per CSA

Approvals per	CSA
Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	5 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	5 A

## Connection data

Connection points	13
Total number of potentials	13
Number of connection types	1
Number of levels	1

### Connection 1

Connection technology	Push-in CAGE CLAMP®
Actuation type	Push-button
Solid conductor	0.14 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG
Fine-stranded conductor	0.2 ... 0.5 mm <sup>2</sup> / 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	13

## Physical data

Pin spacing	2.5 mm / 0.098 inches
Width	34 mm / 1.339 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
Drilled hole diameter with tolerance	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)	<a href="#">Information on material specifications can be found here</a>
Color	gray
Material group	I
Insulation material	Polyamide (PA66)
Flammability class per UL94	V0
Clamping spring material	Copper alloy
Contact plating	Tin
Fire load	0.11 MJ
Weight	4.7 g

### Environmental requirements

Limit temperature range	-60 ... +105 °C
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### Commercial data

Product Group	4 (Printed Circuit Connectors)
eCl@ss 10.0	27-44-04-01
eCl@ss 9.0	27-44-04-01
ETIM 8.0	EC002643
ETIM 7.0	EC002643
PU (SPU)	140 (35) pcs
Packaging type	Box
Country of origin	CH
GTIN	4044918643122
Customs tariff number	85369010000

### 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
CSA DEKRA Certification B.V.	C22.2	1132097
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

#### Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1869876-PDA
DNV GL Det Norske Veritas, Ger- manischer Lloyd	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 250-413



Documentation

Additional Information

Technical Section

03.04.2019

pdf

1949.09 KB



CAD/CAE-Data

CAD data

2D/3D Models 250-413



CAE data

EPLAN Data Portal 250-413



ZUKEN Portal 250-413



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 0,5mm<sup>2</sup>

1.1.3 Tool

### 1.1.3.1 Operating tool



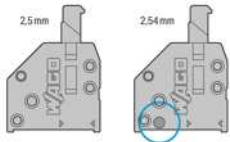
**Item No.: 210-719**

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

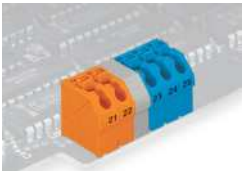


Testing with 11 mm Ø test pin, on the conductor, 250 Series – 2.5 ... 3.5 mm pin spacing.



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.



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