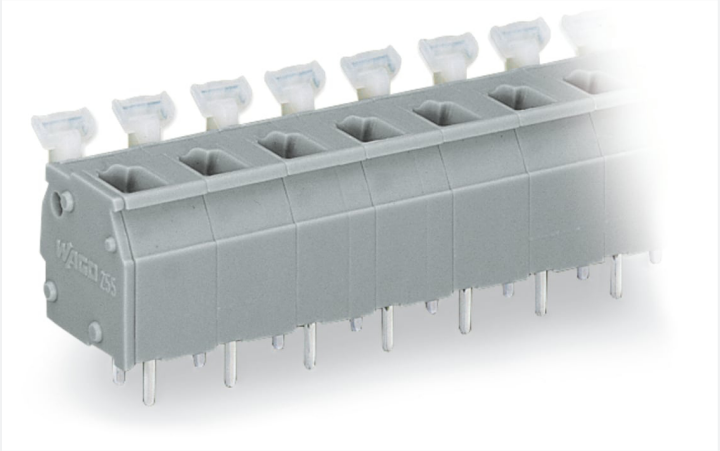
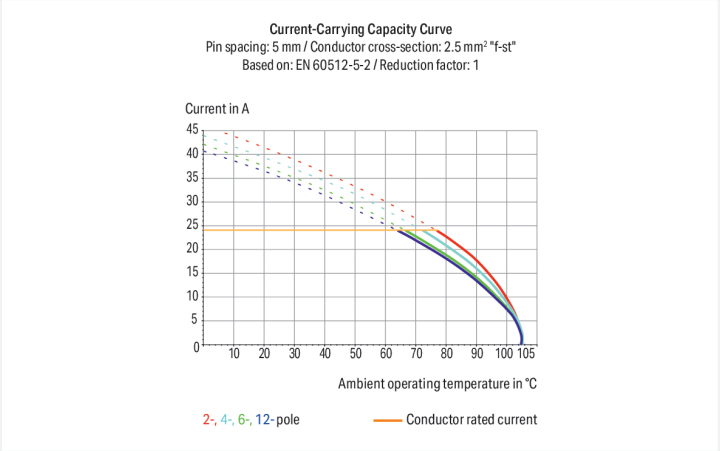
# Data Sheet | Item Number: 255-504

PCB terminal block; push-button; 2.5 mm²; Pin spacing 7.5/7.62 mm; 4-pole; CAGE CLAMP®; commoning option; gray

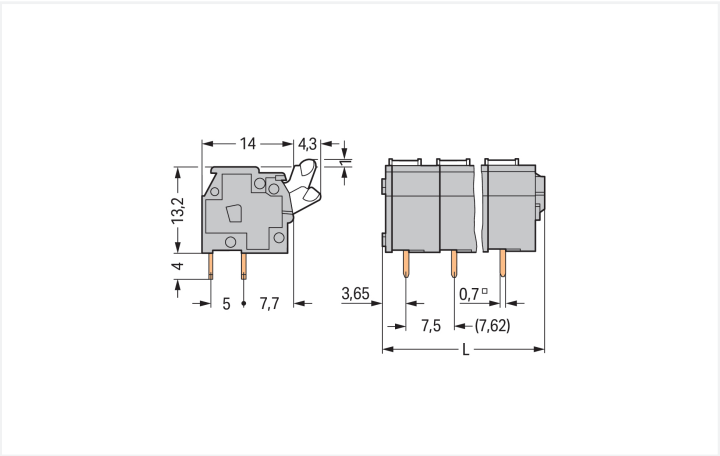
https://www.wago.com/255-504






Color: gray

Similar to illustration




Dimensions in mm
L = (pole no. x pin spacing) + 2.9 mm

PCB terminal block, 255 Series, gray

Connecting conductors is quick and easy with this PCB terminal block (item number 255-504). It is a universal connector that can be used almost anywhere, for example, as a pluggable PCB connector, panel feedthrough header, connector for rail-mount terminal blocks, or a floating connector for different mounting methods. Conductors can only be connected to this PCB terminal block if their strip length is between 5 and 6 mm . This product features one conductor terminal and utilizes CAGE CLAMP®. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. The dimensions are (32.9 x 18.2 x 18.3) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

Tin is used for coating the contact surfaces. A push-button is used to operate this PCB terminal block. THT is used to solder the PCB terminal block. The conductor is designed to be inserted into the board at an angle of 90°..

## Notes

| | |
|---|---|
| Variants: | Other pole numbers<br>Versions for Ex e II and Ex i<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 | 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 | 15 A | - | 10 A |

| Approvals per | UL 1059 | | |
|---|---|---|---|
| Use group | B | C | D |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 15 A | - | 10 A |

## Connection Data

| | |
|---|---|
| Clamping units | 4 |
| Total number of potentials | 4 |
| Number of connection types | 1 |
| Number of levels | 1 |

### Connection 1

| | |
|---|---|
| Connection technology | CAGE CLAMP® |
| Actuation type | Push-button |
| Solid conductor | 0.08 … 2.5 mm² / 25 … 12 AWG |
| Fine-stranded conductor | 0.08 … 2.5 mm² / 28 … 12 AWG |
| Fine-stranded conductor; with insulated ferrule | 0.25 … 1.5 mm² |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 … 1.5 mm² |
| Note (conductor cross-section) | 12 AWG: THHN, THWN |
| Strip length | 5 … 6 mm / 0.2 … 0.24 inches |
| Conductor connection direction to PCB | 90 ° |
| Pole number | 4 |

## Physical data

| | |
|---|---|
| Pin spacing | 7.5/7.62 mm / 0.295/0.3 inches |
| Width | 32.9 mm / 1.295 inches |
| Height | 18.2 mm / 0.717 inches |
| Height from the surface | 14.2 mm / 0.559 inches |
| Depth | 18.3 mm / 0.72 inches |
| Solder pin length | 4 mm |
| Solder pin dimensions | 0.7 x 0.7 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 | 0.093 MJ |
| Weight | 5.9 g |

## Environmental requirements

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

## Commercial data

| | |
|---|---|
| Product Group | 4 (Printed Circuit Connectors) |
| PU (SPU) | 140 (35) pcs |
| Packaging type | Box |
| Country of origin | CH |
| GTIN | 4044918661430 |
| 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 | 2160584.40 |
| CCA<br>DEKRA Certification B.V. | EN 60947 | NTR NL-7146 |
| CCA<br>DEKRA Certification B.V. | EN 60947-7-4 | 71-113038 |

### General approvals

| | | |
|---|---|---|
| CCA<br>DEKRA Certification B.V. | IEC 60947-7-4 | NTR NL-7822 |
| UR<br>Underwriters Laboratories Inc. | UL 1059 | E45172 |


Continued on next page

## Declarations of conformity and manufacturer's declarations

| Approval | Standard | Certificate Name |
|---|---|---|
| EU-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

## 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 255-504

### Documentation

**Additional Information**

| | | |
|---|---|---|
| Technical Section | 03.04.2019 | pdf<br>2027.26 KB |
| Gebrückte Klemmenleisten für Leiterplatten | | pdf<br>303.71 KB |

### CAD/CAE-Data

**CAD data**

2D/3D Models 255-504

**CAE data**

EPLAN Data Portal 255-504

ZUKEN Portal 255-504

**PCB Design**

Symbol and Footprint via SamacSys 255-504

Symbol and Footprint via Ultra Librarian 255-504


Continued on next page

# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Ferrule

#### 1.1.1.1 Ferrule



Item No.: 216-321
Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow



Item No.: 216-151
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored



Item No.: 216-322
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item No.: 216-152
Ferrule; Sleeve for 0.34 mm² / 22 AWG; uninsulated; electro-tin plated; silver-colored



Item No.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item No.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored



Item No.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item No.: 216-122
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; silver-colored



Item No.: 216-223
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red



Item No.: 216-123
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored



Item No.: 216-224
Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black



Item No.: 216-124
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

### 1.1.2 Marking

#### 1.1.2.1 Marking strip



Item No.: 210-833
Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white



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

### 1.1.3 Test and measurement

#### 1.1.3.1 Testing accessories



Item No.: 249-112
Test plug adapter; suitable for 255, 256, 257 Series PCB terminal blocks; 1-pole; Pin spacing 7.5 mm / 0.295 in; gray



Item No.: 249-113
Test plug adapter; suitable for 255, 256, 257 Series PCB terminal blocks; 1-pole; Pin spacing 7.62 mm / 0.3 in; orange

### 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

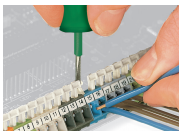


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

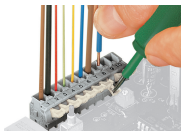

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## Installation Notes

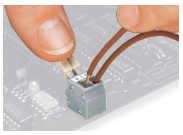
### Conductor termination



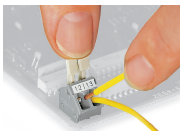
Inserting/removing a conductor – 256 Series.



Inserting/removing a conductor (255 Series)



Inserting/removing a conductor via finger-operated lever – 255 Series.



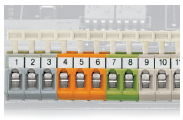
Inserting/removing a conductor via finger-operated lever – 256 Series.

### Installation



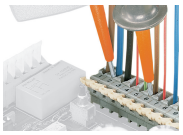
Possible conductor arrangement with terminal strips staggered (for 256 Series only).

### Marking




Formation of groups using housings of different colors

### Testing



Testing with test probes.



Testing with test plug modules.