

## Data Sheet | Item Number: 236-224

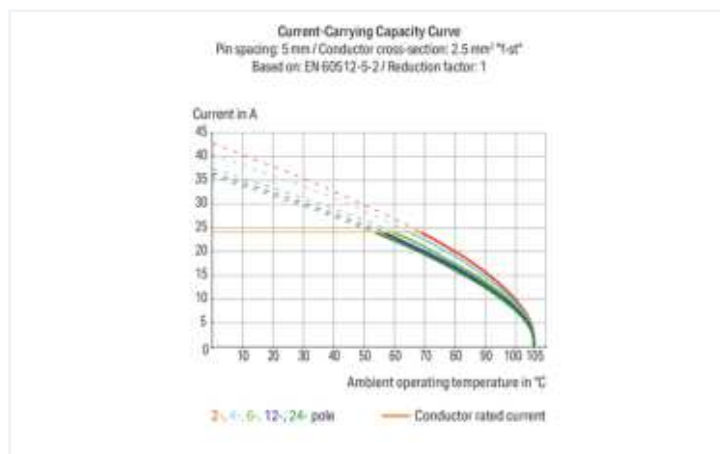
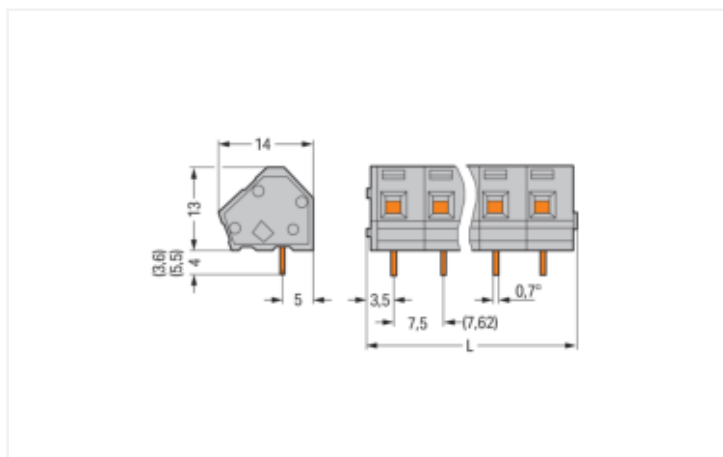
PCB terminal block; 2.5 mm<sup>2</sup>; Pin spacing 7.5/7.62 mm; 24-pole; CAGE CLAMP®; commoning option; gray

<https://www.wago.com/236-224>



Color: ■ gray

Similar to illustration



Dimensions in mm

L = (pole no. x pin spacing) + 2.3 mm

PCB terminal block, 236 Series, 45 °conductor entry to board

Our PCB terminal block (item number 236-224) is designed for seamless electrical installations. 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. Ensure that the strip lengths are between 5 and 6 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with CAGE CLAMP®, this connector is highly versatile. Our celebrated universal connection known as CAGE CLAMP® leads the way when it comes to connection technology and electrical interconnections. The dimensions are (182.3 x 17 x 14) mm (width x height x depth). This PCB terminal block is suitable for conductor cross sections ranging from 0.08 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.

Tin is used for coating the contact surfaces. 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 a 45° angle..



| 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>Solder pin length: 3.6 mm<br>Solder pin length: 5.5 mm<br>Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> . |

| Electrical data                 |       |                |        |
|---------------------------------|-------|----------------|--------|
| Ratings per                     |       | IEC/EN 60664-1 |        |
| Overvoltage category            | III   | III            | II     |
| Pollution degree                | 3     | 2              | 2      |
| Nominal voltage                 | 400 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 |   | UL 1059 |       |
|---------------|---|---------|-------|
| Use group     | B | C       | D     |
| Rated voltage | - | -       | 300 V |
| Rated current | - | -       | 10 A  |

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

| Connection Data            |    |
|----------------------------|----|
| Clamping units             | 24 |
| Total number of potentials | 24 |
| Number of connection types | 1  |
| Number of levels           | 1  |

| Connection 1                                      |                                  |
|---------------------------------------------------|----------------------------------|
| Connection technology                             | CAGE CLAMP®                      |
| Actuation type                                    | Operating tool                   |
| Solid conductor                                   | 0.08 ... 2.5 mm² / 28 ... 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             | 45 °                             |
| Pole number                                       | 24                               |

| Physical data           |                                |
|-------------------------|--------------------------------|
| Pin spacing             | 7.5/7.62 mm / 0.295/0.3 inches |
| Width                   | 182.3 mm / 7.177 inches        |
| Height                  | 17 mm / 0.669 inches           |
| Height from the surface | 13 mm / 0.512 inches           |
| Depth                   | 14 mm / 0.551 inches           |
| Solder pin length       | 4 mm                           |
| Solder pin dimensions   | 0.7 x 0.7 mm                   |
| Drilled hole diameter   | 1.1 (+0.1) mm                  |

| PCB contact                         |  |                                          |
|-------------------------------------|--|------------------------------------------|
| PCB contact                         |  | THT                                      |
| Solder pin arrangement              |  | over the entire terminal strip (in-line) |
| 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 (main housing) |  | Polyamide (PA66)                                                         |
| Flammability class per UL94        |  | V0                                                                       |
| Clamping spring material           |  | Chrome-nickel spring steel (CrNi)                                        |
| Contact material                   |  | Electrolytic copper (E <sub>Cu</sub> )                                   |
| Contact Plating                    |  | Tin                                                                      |
| Fire load                          |  | 0.412 MJ                                                                 |
| Weight                             |  | 25.6 g                                                                   |

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

| Commercial data       |  |                                |
|-----------------------|--|--------------------------------|
| Product Group         |  | 4 (Printed Circuit Connectors) |
| PU (SPU)              |  | 20 (5) pcs                     |
| Packaging type        |  | Box                            |
| Country of origin     |  | CH                             |
| GTIN                  |  | 4044918768191                  |
| 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                                                                  |          |                  | General approvals                    |               |                 |
|------------------------------------------------------------------------------------|----------|------------------|--------------------------------------|---------------|-----------------|
|  |          |                  | CSA<br>DEKRA Certification B.V.      | C22.2 No. 158 | 1673957         |
|                                                                                    |          |                  | UL<br>Underwriters Laboratories Inc. | UL 1059       | UL-US-2406095-1 |
| Approval                                                                           | Standard | Certificate Name |                                      |               |                 |
| CCA<br>DEKRA Certification B.V.                                                    | EN 60947 | 2160584.25       |                                      |               |                 |
| CCA<br>DEKRA Certification B.V.                                                    | EN 60947 | NTR NL-7109      |                                      |               |                 |
| CCA<br>DEKRA Certification B.V.                                                    | EN 60998 | NTR NL-7195      |                                      |               |                 |



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  |
|-------------------------------|-----------|-------------------|
| 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 236-224 |

Documentation

| Additional Information                     |
|--------------------------------------------|
| Technical Section                          |
| 03.04.2019                                 |
| pdf                                        |
| 2027.26 KB                                 |
| ↓                                          |
| Gebrückte Klemmenleisten für Leiterplatten |
|                                            |
| pdf                                        |
| 303.71 KB                                  |
| ↓                                          |

CAD/CAE-Data

| CAD data             |
|----------------------|
| 2D/3D Models 236-224 |

| CAE data                  |
|---------------------------|
| EPLAN Data Portal 236-224 |
| ZUKEN Portal 236-224      |

| PCB Design                                       |
|--------------------------------------------------|
| Symbol and Footprint via SamacSys 236-224        |
| Symbol and Footprint via Ultra Librarian 236-224 |

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

|                                                                                                                                                                                                           |                                                                                                                                                                                                                     |                                                                                                                                                                                                                    |                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow | <br><b>Item No.: 216-151</b><br>Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored | <br><b>Item No.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise | <br><b>Item No.: 216-152</b><br>Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; uninsulated; electro-tin plated; silver-colored |
| <br><b>Item No.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white   | <br><b>Item No.: 216-121</b><br>Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored  | <br><b>Item No.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray            | <br><b>Item No.: 216-122</b><br>Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; silver-colored |
| <br><b>Item No.: 216-223</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red       | <br><b>Item No.: 216-123</b><br>Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored    | <br><b>Item No.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black            | <br><b>Item No.: 216-124</b><br>Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated                  |

1.1.2 Marking

1.1.2.1 Marking strip

|                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 210-332/750-020</b><br>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 | <br><b>Item No.: 210-332/762-020</b><br>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 Stickers with operating instructions

1.1.3.1 Stickers with operating instructions

|                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 210-191</b><br>Stickers for operating instructions; for PCB terminal blocks; 236 Series |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

1.1.4 Test and measurement

1.1.4.1 Testing accessories

|                                                                                                                                                                                                                                      |                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 231-161</b><br>Testing plug module with contact stud; for 236 Series; Pin spacing 7.5 mm / 0.295 in; 2,50 mm <sup>2</sup> ; gray | <br><b>Item No.: 231-125</b><br>Testing plug module with contact stud; Pin spacing 7.62 mm / 0.3 in; 2,50 mm <sup>2</sup> ; orange |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

1.1.5 Tool

1.1.5.1 Operating tool



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



**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; multi-coloured



**Item No.: 236-335**  
Operating tool; gray



**Item No.: 236-332**  
Operating tool; natural

Installation Notes

Conductor termination



Inserting a conductor via 3.5 mm screwdriver.  
Screwdriver actuation parallel to conductor entry



Inserting a conductor via 3.5 mm screwdriver.  
Screwdriver actuation perpendicular to conductor entry



Inserting a conductor via operating tool.



Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

Installation



PCB Terminal Strips placed behind each other save space – staggering them by half the pin spacing simplifies subsequent wiring of the first row.

Installation



Combining PCB terminal blocks with different pin spacing.

## Marking



Optional: Labeling via factory direct marking.



Optional: Labeling with self-adhesive marking strips possible