Compact and versatile: WAGO front-entry rail-mounted terminal blocks of series 870
COMPACT Rail-Mounted Terminal Blocks

Through terminal blocks and ground (earth) conductor terminal blocks
– for DIN 35 and DIN 15
  0.08 mm² to 2.5 mm² / AWG 28 – 12 Series 870 3.6 – 3.7

Double potential terminal blocks
  0.08 mm² to 2.5 mm² / AWG 28 – 12 Series 870 3.7

Multilevel terminal blocks
– Double deck
  0.08 mm² to 2.5 mm² / AWG 28 – 12 Series 870 3.8
– Triple deck
  0.08 mm² to 2.5 mm² / AWG 28 – 12 Series 870 3.9

Accessories
– Insulation stops 2.43
– Secondary connection modules 3.11
– Group marker carriers 3.11
COMPACT Rail-Mounted Terminal Blocks, Series 870
– Product Summary –

**Series 870** Through terminal blocks for DIN 35 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 3-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 4-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

**Series 870** EEx i through terminal blocks for DIN 35 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 3-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 4-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

**Series 870** Ground (earth) conductor terminal blocks for DIN 35 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 3-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

- 4-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.6

**Series 870** Double potential terminal blocks for DIN 35 rail

- Double potential terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.7

**Series 870** Through terminal blocks for DIN 15 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.7

**Series 870** EEx i through terminal blocks for DIN 15 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.7

**Series 870** Ground (earth) conductor terminal blocks for DIN 35 rail

- 2-conductor terminal block
  - mm²/AWG: 2.5/4/12
  - Page: 3.7
Series 870 Double deck terminal blocks (selection)

<table>
<thead>
<tr>
<th>Through/through connection</th>
<th>Ground (earth)/through connection</th>
<th>4-conductor terminal block</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm²/AWG</td>
<td>Page 3.8</td>
<td>mm²/AWG</td>
</tr>
<tr>
<td>2.5/4/12</td>
<td>3.8</td>
<td>2.5/4/12</td>
</tr>
<tr>
<td>Page 3.8</td>
<td></td>
<td>Page 3.8</td>
</tr>
</tbody>
</table>

Series 870 3-conductor double deck terminal blocks (selection)

<table>
<thead>
<tr>
<th>Through/through connection</th>
<th>Ground (earth)/through connection</th>
<th>6-conductor terminal block</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm²/AWG</td>
<td>Page 3.8</td>
<td>mm²/AWG</td>
</tr>
<tr>
<td>2.5/4/12</td>
<td>3.8</td>
<td>2.5/4/12</td>
</tr>
<tr>
<td>Page 3.8</td>
<td></td>
<td>Page 3.9</td>
</tr>
</tbody>
</table>

Series 870 Triple deck terminal blocks (selection)

<table>
<thead>
<tr>
<th>Through/through/through connection</th>
<th>Shield (screen)/through/through connection</th>
<th>Ground (earth)/through/through connection</th>
<th>6-conductor terminal block</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm²/AWG</td>
<td>mm²/AWG</td>
<td>mm²/AWG</td>
<td>mm²/AWG</td>
</tr>
<tr>
<td>2.5/4/12</td>
<td>2.5/4/12</td>
<td>2.5/4/12</td>
<td>2.5/4/12</td>
</tr>
<tr>
<td>Page 3.9</td>
<td>Page 3.9</td>
<td>Page 3.9</td>
<td>Page 3.9</td>
</tr>
</tbody>
</table>

Accessories (selection)

- Protective warning marker
  - Page 3.4
- Push-in type jumper bars
  - Page 3.6
- Group marker carriers
  - Page 3.11
- Insulation stops
  - Page 2.43
- Anti-reverse mating removable terminal block
  - Page 3.11
- Removable terminal block
  - Page 3.11
COMPACT Rail-Mounted Terminal Blocks with CAGE CLAMP® for DIN 15 and DIN 35 Rails, Series 870 . . .

Assembly

Assembly of a rail-mounted terminal block on the DIN 35 rail

Removal

Removal of a terminal block from the assembly (see page 2.43)

Insulation stop

Insertion of insulation stop.

Push-in type jumper bar system

Push jumper bars down firmly until fully inserted! When using multi-pole bars, push alternately on right and then left side, successively until installed.

Push-in type jumper bars

1 – 3 – 5 – 7.../1 – – 4 – – 7 upon request

2 parallel receptacles for jumpers in one terminal block.

Testing

Testing is possible using a wired strip in the very same way as test plugs

Protective warning marker

Protective warning marker for 5 terminal blocks yellow – Item No. 280-405

Commoning

Terminal blocks with larger cross sections can be commoned to term. bl. with smaller cross sections

CAGE CLAMP® clamps the following copper wires:

* For aluminum wire see notes in section 15!
Description and Handling

CAGE CLAMP® connection

Connection of stranded conductors
0.08 mm² to 4 mm² / AWG 28 – 12

Multi-level and multi-connector terminal blocks

Double and triple deck terminal blocks with internal commoning acting as 4- and 6-conductor terminal blocks

Testing

Testing with phase testing device, possible with 1-pole voltage tester too

Marking

Marking with WMB multi-marking system or miniature WSB quick marking system

Space saving

Space saving of 50% when using double deck terminal blocks

Space saving of 67% when using triple deck terminal blocks

Marker strips

Transparent marker strips (note: jumpers below may be viewed)

Fine-stranded wire – tip bonded

Fine-stranded wire with crimped ferrule

Fine-stranded wire with crimped pin terminal
Through/Ground (Earth) Conductor and Double Potential Terminal Blocks 2.5 mm²/4 mm² / AWG 12
Series 870

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-way</td>
<td>870-402 200 strips</td>
</tr>
<tr>
<td>3-way</td>
<td>870-403 200 strips</td>
</tr>
<tr>
<td>4-way</td>
<td>870-404 200 strips</td>
</tr>
<tr>
<td>5-way</td>
<td>870-405 100 strips</td>
</tr>
<tr>
<td>10-way</td>
<td>870-410 100 strips</td>
</tr>
<tr>
<td>18 A</td>
<td>from 1 to 3 870-433 200 strips</td>
</tr>
<tr>
<td>20 A</td>
<td>from 1 to 4 870-434 200 strips</td>
</tr>
<tr>
<td>24 A</td>
<td>from 1 to 5 870-435 100 strips</td>
</tr>
<tr>
<td>30 A</td>
<td>from 1 to 10 870-440 100 strips</td>
</tr>
<tr>
<td>** Marker strips, transparent, for central marking **</td>
<td></td>
</tr>
<tr>
<td>75 mm/0.295 in wide</td>
<td>709-196 1</td>
</tr>
<tr>
<td>75 mm/0.295 in wide</td>
<td>709-196 1</td>
</tr>
<tr>
<td>75 mm/0.295 in wide</td>
<td>709-196 1</td>
</tr>
</tbody>
</table>

*For further approvals with corresponding ratings see section 15.
** 10 A for push-in type jumper bars with different potentials, placed in parallel.
WAGO front-entry double potential terminal blocks are space savers. Two independent through terminal blocks are placed in one insulated housing on one level. The width of the housing is only 5 mm / 0.197 in. Compared to standard through terminal blocks, the width is only 2.5 mm / 0.098 in for a total height of only 27.5 mm / 1.08 in from the upper edge of the carrier rail. Input and output contacts of one circuit are placed on the same side of the terminal block. Both circuits can be individually marked according to input and output.

**Application notes**

Terminal block marking directly on the terminal block either with miniature WSB or WMB markers

**Protective warning marker** for 3 terminal blocks 280-405 100 (4 x 25)

**Assembly** Snap individual terminal blocks onto carrier rail DIN 15 and engage.

**Removal** Open assembly by laterally sliding terminal blocks with a screwdriver and remove them from the rail.
**Double Deck and Triple Deck Terminal Blocks 2.5 mm²/4 mm²/ AWG 12, Series 870**

**For further approvals with corresponding ratings see section 15.**

**10 A for push-in type jumper bars with different potentials, placed in parallel**

---

**Double deck terminal block, for DIN 35 rail**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Double deck terminal block, for DIN 35 rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/L</td>
<td>870-501</td>
<td>50</td>
</tr>
<tr>
<td>N/L</td>
<td>870-502</td>
<td>50</td>
</tr>
<tr>
<td>L/N</td>
<td>870-503</td>
<td>50</td>
</tr>
</tbody>
</table>

**Through/through terminal blocks,**

housing color grey

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Double deck terminal block, for DIN 35 rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/L</td>
<td>870-501</td>
<td>50</td>
</tr>
<tr>
<td>N/L</td>
<td>870-502</td>
<td>50</td>
</tr>
<tr>
<td>L/N</td>
<td>870-503</td>
<td>50</td>
</tr>
</tbody>
</table>

**4-conductor terminal block,**

internal commoning, housing color grey,

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Double deck terminal block, for DIN 35 rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>L/L</td>
<td>870-501</td>
<td>50</td>
</tr>
<tr>
<td>N/L</td>
<td>870-502</td>
<td>50</td>
</tr>
<tr>
<td>L/N</td>
<td>870-503</td>
<td>50</td>
</tr>
</tbody>
</table>

---

**3-cond. double deck terminal block, for DIN 35 rail**

**Ground (earth) conductor/through terminal blocks,**

housing color grey

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>3-cond. double deck terminal block, for DIN 35 rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE/N</td>
<td>870-517</td>
<td>50</td>
</tr>
<tr>
<td>PE/L</td>
<td>870-527</td>
<td>50</td>
</tr>
</tbody>
</table>

**4-conductor ground (earth) terminal block,**

internal commoning, housing color green-yellow

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>3-cond. double deck terminal block, for DIN 35 rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE/N</td>
<td>870-527</td>
<td>50</td>
</tr>
<tr>
<td>PE/L</td>
<td>870-535</td>
<td>50</td>
</tr>
</tbody>
</table>

---

**End and intermediate plate,**

2 mm/0.079 in thick

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>End and intermediate plate, 2 mm/0.079 in thick</th>
</tr>
</thead>
<tbody>
<tr>
<td>orange</td>
<td>870-519</td>
<td>100 (4x25)</td>
</tr>
<tr>
<td>grey</td>
<td>870-518</td>
<td>100 (4x25)</td>
</tr>
</tbody>
</table>

---

**Accessories serie 870**

**Appropriate marking system WMB/Mini-WSB** (see section 14)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Insulation stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>white</td>
<td>280-470</td>
<td>200 strips</td>
</tr>
<tr>
<td>light grey</td>
<td>280-471</td>
<td>200 strips</td>
</tr>
<tr>
<td>dark grey</td>
<td>280-472</td>
<td>200 strips</td>
</tr>
</tbody>
</table>

---

**Push-in type jumper bars, light grey, insulated,**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Push-in type jumper bars, light grey, insulated,</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-way</td>
<td>870-402</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>3-way</td>
<td>870-403</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>4-way</td>
<td>870-404</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>5-way</td>
<td>870-405</td>
<td>100 (4x25)</td>
</tr>
<tr>
<td>10-way</td>
<td>870-410</td>
<td>100 (4x25)</td>
</tr>
</tbody>
</table>

---

**Push-in type jumper bars, light grey, insulated,**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Push-in type jumper bars, light grey, insulated,</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-way</td>
<td>870-402</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>3-way</td>
<td>870-403</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>4-way</td>
<td>870-404</td>
<td>200 (8x25)</td>
</tr>
<tr>
<td>5-way</td>
<td>870-405</td>
<td>100 (4x25)</td>
</tr>
<tr>
<td>10-way</td>
<td>870-410</td>
<td>100 (4x25)</td>
</tr>
</tbody>
</table>

---

**Marker strips, transparent, for central marking**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Marker strips</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 m/333&quot; long; 75 mm/0.295 in wide</td>
<td>709-196</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**Insulation stop**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Pack. unit</th>
<th>Insulation stop</th>
</tr>
</thead>
<tbody>
<tr>
<td>white</td>
<td>280-470</td>
<td>200 strips</td>
</tr>
<tr>
<td>light grey</td>
<td>280-471</td>
<td>200 strips</td>
</tr>
<tr>
<td>dark grey</td>
<td>280-472</td>
<td>200 strips</td>
</tr>
</tbody>
</table>

---

**Max. diameter of insulation 4.4 mm/0.173 in**

**500 V = rated voltage**

**6 kV = rated surge voltage**

**3 = pollution degree**

---

**EEx e II application in preparation**

**Suitable for EEx i applications**

**See application notes on page 2.43**

---

*For further approvals with corresponding ratings see section 15.**

**10 A for push-in type jumper bars with different potentials, placed in parallel**
**Terminal block width 5 mm / 0.197 in**

- **AWG 28 – 12**
  - 500 V/6 kV/3
  - 24 A
  - Terminal block width 5 mm / 0.197 in
  - 6 – 7 mm / 0.26 in

- **AWG 28 – 12**
  - 300/600 V, 20/5 A**

- **AWG 28 – 12**
  - 500 V/6 kV/3
  - 24 A
  - Terminal block width 5 mm / 0.197 in
  - 6 – 7 mm / 0.26 in

---

### Accessories serie 870

**Appropriate marking system WMB/Mini-WSB** (see section 14)

- **Insulation stop**
  - 5 pcs/strip
    - white 280-470 200 strips
    - light grey 280-471 200 strips
    - dark grey 280-472 200 strips

- **Marker strips, transparent, for central marking**
  - 1 m / 3’33” long
  - 75 mm / 0.295 in wide
  - plain 709-196 1

- **Push-in type jumper bars, light grey, insulated**
  - 2-way 870-420 200 (8 x 25)
  - 3-way 870-403 200 (8 x 25)
  - 4-way 870-404 200 (8 x 25)
  - 5-way 870-405 100 (4 x 25)
  - 10-way 870-410 100 (4 x 25)

- **Push-in type jumper bars, light grey, insulated**
  - 2-way 870-420 200 (8 x 25)
  - 3-way 870-403 200 (8 x 25)
  - 4-way 870-404 200 (8 x 25)
  - 5-way 870-405 100 (4 x 25)
  - 10-way 870-410 100 (4 x 25)

---

**Other terminal blocks with the same shape**

- **WMB/Mini-WSB**

---

**Max. diameter of insulation**

1. 4.4 mm / 0.173 in
2. 500 V = rated voltage
3. 6 kV = rated surge voltage

---

**Suitable for EEx i applications**

**EEx e II application in preparation**

---

**See application notes on page 2.43**
Removable Terminal Block Modules with CAGE CLAMP®, Series 870

**Description**

**Assembly**

Snap together individual terminal blocks and spacer modules to create custom removable terminal block modules (10-pole max.).

**CAGE CLAMP® connection**

Removable terminal block module with CAGE CLAMP® connection (0.25 mm² – 2.5 mm² / AWG 24 – 14), with strain relief plate and marker position for miniature WSB or WMB marking.

The removable terminal modules can be directly inserted into the jumper contact slot in the current bar of the receiving rail-mounted terminal block. Terminals can also be commoned utilizing a comb-style jumper parallel to the jumper contact slot being used by the removable terminal module.

These modules are used when additional or removable connections are required (can be used as a permanent connection or a test plug). Wiring of the removable terminal block module is possible whether or not the module is plugged into the rail-mounted terminal block assembly.

**Testing**

Use anti-reverse mating modules at both ends of the removable module to prevent reverse mating. Three anti-reverse mating modules are necessary when snapping more than 7 modules together.

Testing is also possible using a prewired removable terminal block module just like traditional test plugs.

*CAGE CLAMP® clamps the following copper wires:*

- *solid*
- *stranded*
- *fine-stranded, also with tinned single strands*

*For aluminum wire see notes in section 15*
For additional-wire connections, as well as serial testing on terminal block assemblies, WAGO has developed special multi-pole modular removable terminal blocks.

The structure of the removable terminal block module can be specifically adapted to the terminal block assembly using spacer modules if necessary (see left page). The connection of the modules is made directly in the jumper contact positions of the terminal blocks to be tested / tapped, even though a comb style jumper bar is already being used.

### Application notes

**Attention!**
Marked markers are not suitable for ground (earth) conductor terminal blocks and double potential terminal blocks as they have no jumper contact slots.