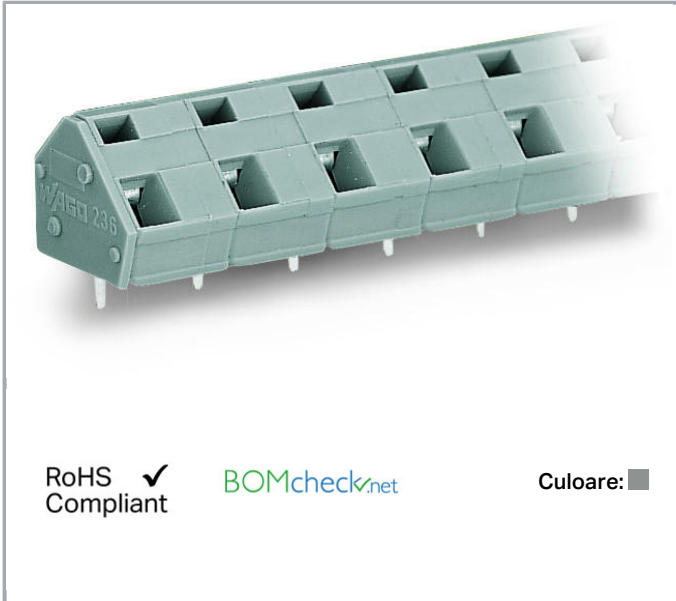


# Fișă tehnică | Număr articol: 236-312

PCB terminal block; 2.5 mm<sup>2</sup>; Pin spacing 10/10.16 mm; 12-pole; CAGE CLAMP®; commoning option; 2,50 mm<sup>2</sup>; gray



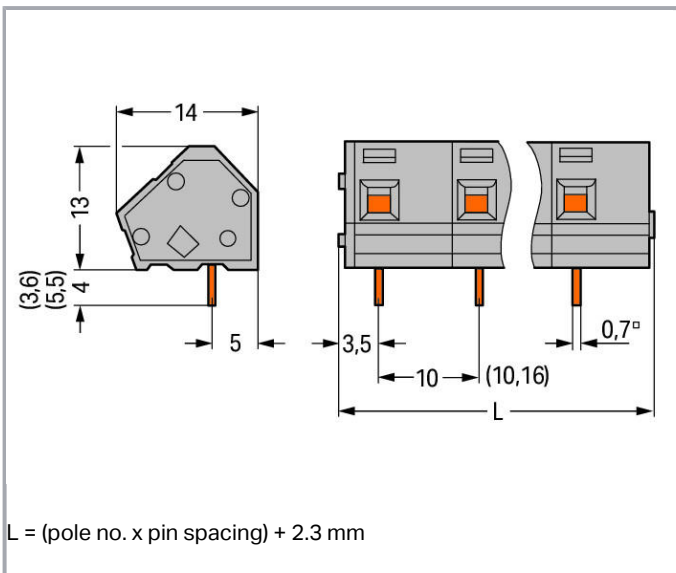
[www.wago.com/236-312](http://www.wago.com/236-312)



RoHS  Compliant

[BOMcheck.net](https://www.bomcheck.net)

Culoare: ■



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Aveți întrebări despre produsele noastre?  
Vă stăm la dispoziție pentru preluarea apelului la +40 (0) 31 421 85 68.

## Descriere articol

- PCB terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry
- Versions with Ex approval
- Mixed-color PCB terminal strips from factory
- Operating tools for factory wiring
- 45° conductor entry angle permits a wide range of applications and wiring options
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

## Date

### Electrical data

#### Ratings per IEC/EN 60664-1

Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	630 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Nominal voltage (II/2)	1000 V
Rated surge voltage (II/2)	8 kV
Rated current	24 A
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

#### Approvals per UL 1059

Rated voltage UL (Use Group B)	300 V
Rated current UL (Use Group B)	15 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A
Approvals per	UL 1059

#### Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

Supus modificărilor.



## Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0,08 ... 2,5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor	0,08 ... 2,5 mm <sup>2</sup> / 28 ... 12 AWG
Fine-stranded conductor; with insulated ferrule	0,25 ... 1,5 mm <sup>2</sup>
Fine-stranded conductor; with uninsulated ferrule	0,25 ... 1,5 mm <sup>2</sup>
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Conductor connection direction to PCB	45°
Pole No.	12
Total number of connection points	12
Total number of potentials	12
Number of connection types	1
Number of levels	1
Note (conductor cross-section)	12 AWG: THHN, THWN

## Geometrical Data

Pin spacing	10/10,16 mm / 0.394/0.4 inch
Width	122,3 mm / 4.815 inch
Height	17 mm / 0.669 inch
Height from the surface	13 mm / 0.512 inch
Depth	14 mm / 0.551 inch
Solder pin length	4 mm
Solder pin dimensions	0,7 x 0,7 mm
Drilled hole diameter with tolerance	1,1 <sup>(+0,1)</sup> 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

Color	gray
Material group	I
Insulation material	Polyamide 66 (PA 66)

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Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (E <sub>Cu</sub> )
Contact plating	tin-plated
Fire load	0,292 MJ
Weight	15,1 g

### Environmental Requirements





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

### Commercial data

Product Group	4 (Printed Circuit)
Packaging type	BOX
Country of origin	CH
GTIN	4044918768511
Customs tariff number	85369010000

### Aprobări / certificate

#### Country specific Approvals


Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	CCA DEKRA Certification B.V.	EN 60947	NTR NL-7109
	CCA DEKRA Certification B.V.	EN 60998	NTR NL-7195
	CCA DEKRA Certification B.V.	EN 60947	2168090.01
	CSA DEKRA Certification B.V.	C22.2 No. 158	1673957

#### Ship Approvals


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Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z






## UL-Approvals

Emblemă	Aprobare	Text de aprobare suplimentar	Nume certificat
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172, sec. 6

## Counterpart

## Produse compatibile

## tools

	<b>Nr. articol: 210-657</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
	<b>Nr. articol: 210-658</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short	<a href="http://www.wago.com/210-658">www.wago.com/210-658</a>
	<b>Nr. articol: 210-720</b> Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
	<b>Nr. articol: 236-332</b> Operating tool; natural	<a href="http://www.wago.com/236-332">www.wago.com/236-332</a>
	<b>Nr. articol: 236-335</b> Operating tool	<a href="http://www.wago.com/236-335">www.wago.com/236-335</a>

## Marking accessories

	<b>Nr. articol: 210-332/1000-202</b> Marking strips; as a DIN A4 sheet; MARKED; 1-16 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/1000-202">www.wago.com/210-332/1000-202</a>
	<b>Nr. articol: 210-332/1000-204</b> Marking strips; as a DIN A4 sheet; MARKED; 17-31 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/1000-204">www.wago.com/210-332/1000-204</a>

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**Nr. articol: 210-332/1000-206** [www.wago.com/210-332/1000-206](http://www.wago.com/210-332/1000-206)  
 Marking strips; as a DIN A4 sheet; MARKED; 33-48 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Nr. articol: 210-332/1016-202** [www.wago.com/210-332/1016-202](http://www.wago.com/210-332/1016-202)  
 Marking strips; as a DIN A4 sheet; MARKED; 1-16 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Nr. articol: 210-332/1016-204** [www.wago.com/210-332/1016-204](http://www.wago.com/210-332/1016-204)  
 Marking strips; as a DIN A4 sheet; MARKED; 17-31 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

**Nr. articol: 210-332/1016-206** [www.wago.com/210-332/1016-206](http://www.wago.com/210-332/1016-206)  
 Marking strips; as a DIN A4 sheet; MARKED; 33-48 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white

## ferrule



**Nr. articol: 216-101** [www.wago.com/216-101](http://www.wago.com/216-101)  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated



**Nr. articol: 216-102** [www.wago.com/216-102](http://www.wago.com/216-102)  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated



**Nr. articol: 216-103** [www.wago.com/216-103](http://www.wago.com/216-103)  
 Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



**Nr. articol: 216-104** [www.wago.com/216-104](http://www.wago.com/216-104)  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated



**Nr. articol: 216-121** [www.wago.com/216-121](http://www.wago.com/216-121)  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated



**Nr. articol: 216-122** [www.wago.com/216-122](http://www.wago.com/216-122)  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated



**Nr. articol: 216-123** [www.wago.com/216-123](http://www.wago.com/216-123)  
 Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated



**Nr. articol: 216-124** [www.wago.com/216-124](http://www.wago.com/216-124)  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated



**Nr. articol: 216-131** [www.wago.com/216-131](http://www.wago.com/216-131)  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Nr. articol: 216-132** [www.wago.com/216-132](http://www.wago.com/216-132)  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated



**Nr. articol: 216-141** [www.wago.com/216-141](http://www.wago.com/216-141)  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92




















**Nr. articol: 216-142** [www.wago.com/216-142](http://www.wago.com/216-142)  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

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	<b>Nr. articol: 216-143</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-143">www.wago.com/216-143</a>
	<b>Nr. articol: 216-144</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-144">www.wago.com/216-144</a>
	<b>Nr. articol: 216-151</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-151">www.wago.com/216-151</a>
	<b>Nr. articol: 216-152</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-152">www.wago.com/216-152</a>
	<b>Nr. articol: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
	<b>Nr. articol: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
	<b>Nr. articol: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
	<b>Nr. articol: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
	<b>Nr. articol: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; white	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Nr. articol: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Nr. articol: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; red	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Nr. articol: 216-224</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; black	<a href="http://www.wago.com/216-224">www.wago.com/216-224</a>
	<b>Nr. articol: 216-241</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Nr. articol: 216-242</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Nr. articol: 216-243</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Nr. articol: 216-244</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<b>Nr. articol: 216-262</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	<a href="http://www.wago.com/216-262">www.wago.com/216-262</a>

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	<b>Nr. articol: 216-263</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>
	<b>Nr. articol: 216-264</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>
	<b>Nr. articol: 216-284</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>
	<b>Nr. articol: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Nr. articol: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
	<b>Nr. articol: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Nr. articol: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / 22 AWG; insulated; electro-tin plated; green	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>

## Descărcări

### Documentation

#### Additional Information

Technical explanations	Apr 3, 2019	pdf 3,6 MB	Descărcare
------------------------	-------------	---------------	------------

### CAD/CAE-Data

#### CAD data

2D/3D Models 236-312	URL	Descărcare
----------------------	-----	------------

#### CAE data

EPLAN Data Portal 236-312	URL	Descărcare
---------------------------	-----	------------

#### PCB Design

Symbol and Footprint 236-312	URL	Descărcare
------------------------------	-----	------------

CAX data for your PCB design, consisting of "schematic symbols and PCB footprints", allow easy integration of the WAGO component into your development environment.

#### Supported formats:

—  
Supus modificărilor.





- Accel EDA 14 & 15
- Altium 6 to current version
- Cadence Allegro
- DesignSpark
- Eagle Libraries
- KiCad
- Mentor Graphics BoardStation
- Mentor Graphics Design Architect
- Mentor Graphics Design Expedition 99 and 2000
- OrCAD 9.X PCB and Capture
- PADS PowerPCB 3, 3.5, 4.X, and 5.X
- PADS PowerPCB and PowerLogic 3.0
- PCAD 2000, 2001, 2002, 2004, and 2006
- Pulsonix 8.5 or newer
- STL
- 3D STEP
- TARGET 3001!
- View Logic ViewDraw
- Quadcept
- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

PCB Component Libraries (EDA), PCB CAD Library Ultra Librarian

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## Installation Notes

### Inserting a conductor

Supus modificărilor.

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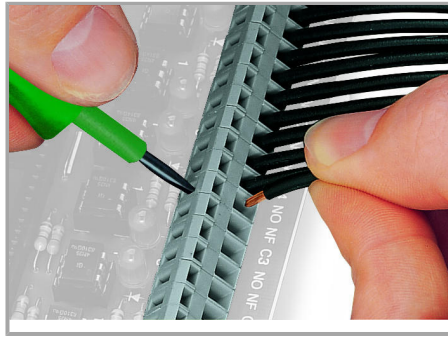
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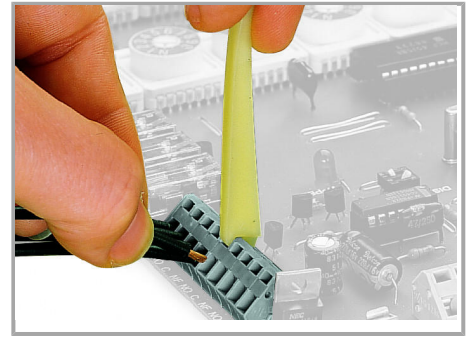
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation parallel to conductor entry.



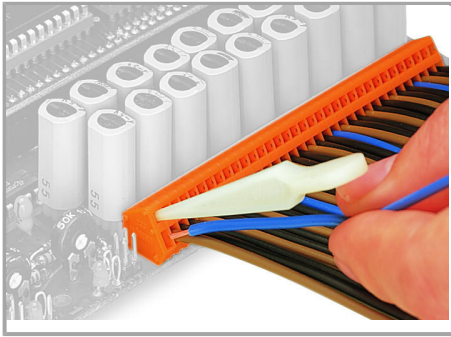
Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation perpendicular to conductor entry.



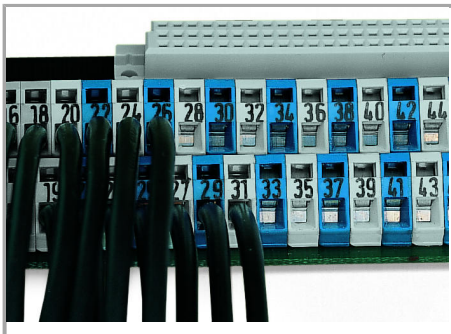
Inserting a conductor via operating tool.

Supus modificărilor.



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

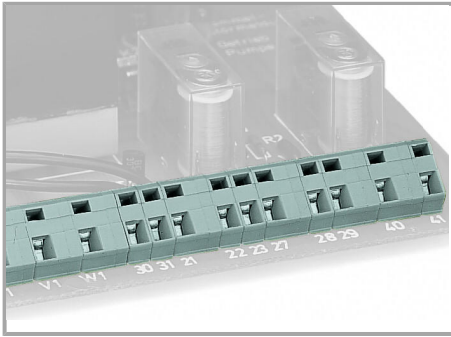
#### Assembly



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

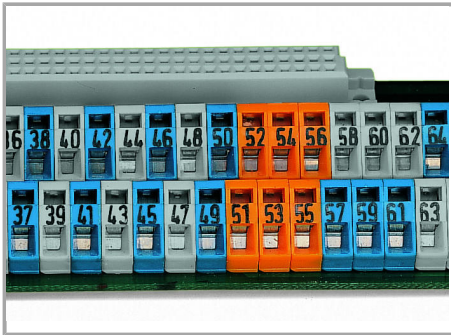
#### Assembly

Supus modificărilor.

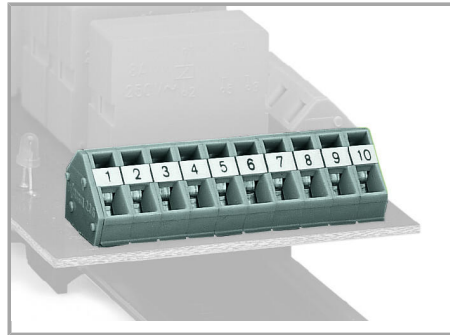


Combining PCB terminal blocks with different pin spacing.

### Marking



Labeling via factory direct marking.



Labeling with self-adhesive marking strips.

Supus modificărilor.