

**Data sheet | Item number: 738-104**

Quadruple-deck PCB terminal block; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 16-pole;  
CAGE CLAMP®; 2,50 mm<sup>2</sup>; gray

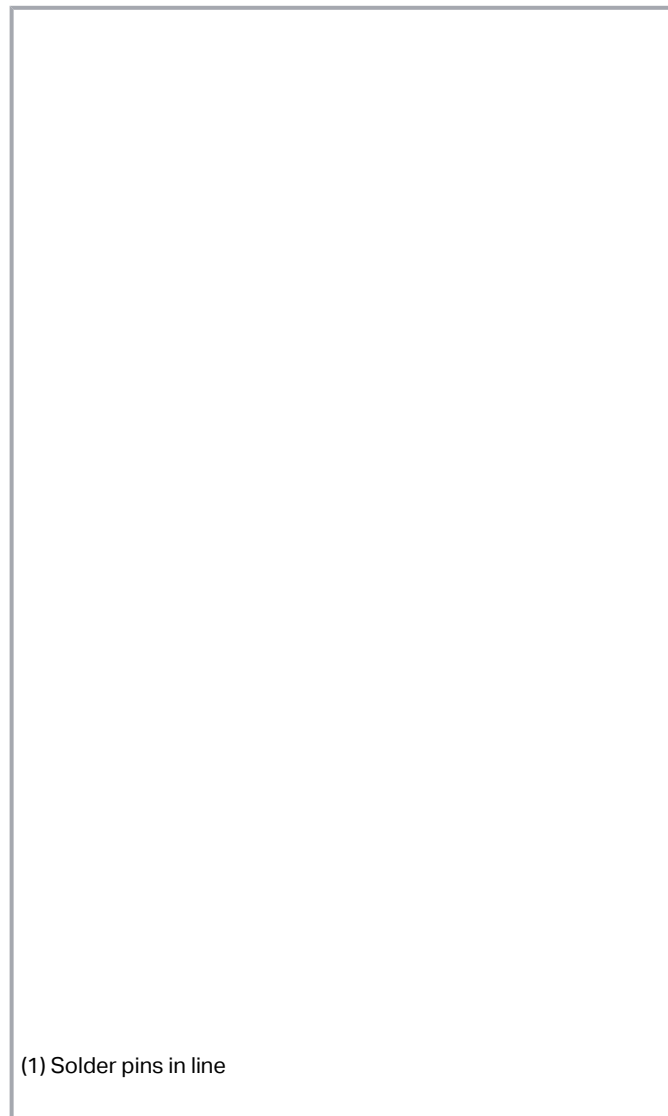
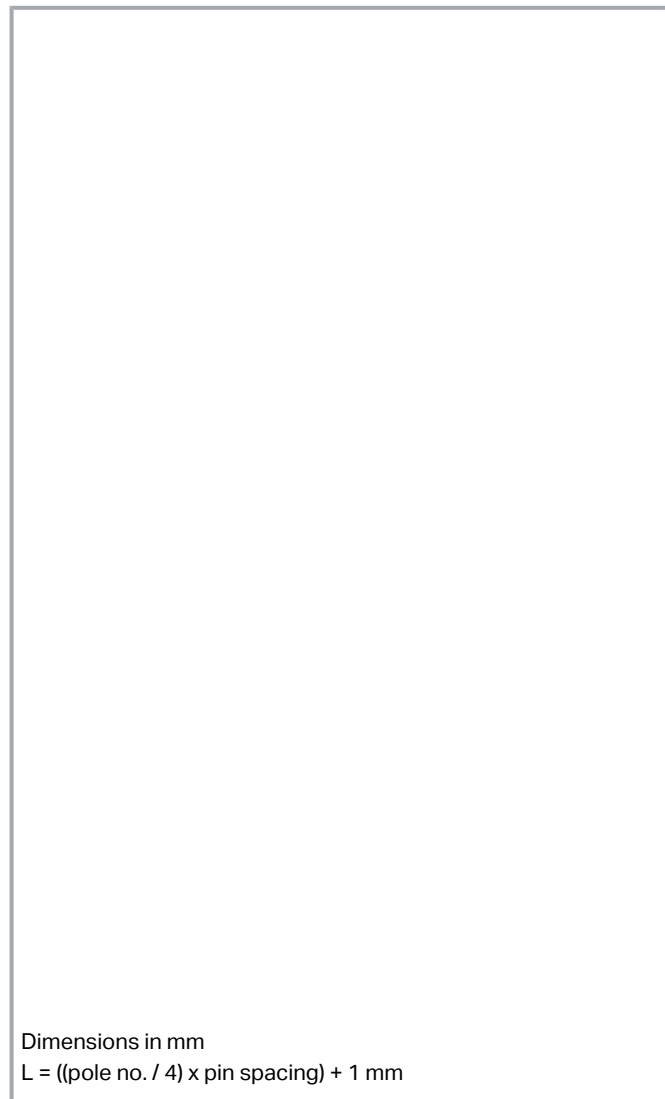
[www.wago.com/738-104](http://www.wago.com/738-104)



Subject to changes. Please also observe the further product documentation!

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## Item description

- PCB terminal strips with screwdriver-actuated CAGE CLAMP<sup>®</sup> connection
- High-density, quadruple-deck design for space-efficient wiring of multiple conductors in confined areas
- Angled conductor entry and CAGE CLAMP<sup>®</sup> actuation streamline operation
- Custom marking for all termination levels

Subject to changes. Please also observe the further product documentation!



## Data Notes

Variants:	Other pole numbers Other colors Mixed-color PCB connector strips Direct marking Other versions (or variants) can be requested from WAGO Sales or configured at <a href="https://configurator.wago.com/">https://configurator.wago.com/</a> .
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## Electrical data

### Ratings per IEC/EN

Ratings	between the modules
Ratings per	IEC/EN 60664-1
Nominal voltage (III/3)	250 V
Rated impulse voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated impulse voltage (III/2)	4 kV
Nominal voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
Rated current	18 A
Legend (ratings)	(III / 2) $\hat{=}$ Overvoltage category III / Pollution degree 2

### Ratings per IEC/EN 2

Ratings	between the decks
Ratings per 2	IEC/EN 60664-1
Rated voltage (III/3) 2	320 V
Rated surge voltage (III/3) 2	4 kV
Rated voltage (III/2) 2	320 V
Rated surge voltage (III/2) 2	4 kV
Rated voltage (II/2) 2	630 V
Rated surge voltage (II/2) 2	4 kV
Rated current 2	18 A

### Ratings per UL

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

### Ratings per CSA

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

### Connection data

Connection points	16
Total number of potentials	16
Number of connection types	1
Number of levels	4

### Connection 1

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 ... 2.5 mm <sup>2</sup>
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	16

### Physical data

Pin spacing	5 mm / 0.197 inches
Width	21 mm / 0.827 inches
Height	48.2 mm / 1.898 inches
Height from the surface	44.2 mm / 1.74 inches
Depth	37.5 mm / 1.476 inches

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Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 <sup>(+0.1)</sup> mm

### PCB contact

PCB contact	THT
Solder pin arrangement	within the terminal block (in-line)
Number of solder pins per potential	1

### Material Data

Note (material data)

Information on material specifications can be found here

Color	gray
Material group	I
Insulation material	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	0.35 MJ
Weight	24.8 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)	36 pcs
Packaging type	box
Country of origin	PL
GTIN	4045454161903

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Customs tariff number	85369010000
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## Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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## Approvals / Certificates

### General approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>CCA</b> DEKRA Certification B.V.	EN 60947	2160584.20
	<b>CCA</b> DEKRA Certification B.V.	EN 60947	NTR NL-7103
	<b>CCA</b> DEKRA Certification B.V.	EN 60947-7-4	NTR NL 7817
	<b>CCA</b> DEKRA Certification B.V.	EN 60947-7-4	71-112779
	<b>CSA</b> DEKRA Certification B.V.	C22.2 No. 158	1711139
	<b>UR</b> Underwriters Laboratories Inc.	UL 1059	E45172

### Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	<b>EU-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-
	<b>UK-Declaration of Conformity</b> WAGO GmbH & Co. KG	-	-

### Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	<b>ABS</b> American Bureau of Shipping	-	19-HG1869876-PDA
	<b>BV</b> Bureau Veritas S.A.	IEC 60998	11915/DO BV
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

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## Optional accessories

### Marking accessories

Marking strip	
<b>Item no.: 210-332/500-202</b> Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/500-202">www.wago.com/210-332/500-202</a>
<b>Item no.: 210-332/500-206</b> Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/500-206">www.wago.com/210-332/500-206</a>
<b>Item no.: 210-332/500-205</b> Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/500-205">www.wago.com/210-332/500-205</a>
<b>Item no.: 210-332/500-204</b> Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length 182 mm; Horizontal marking; Self-adhesive; white	<a href="http://www.wago.com/210-332/500-204">www.wago.com/210-332/500-204</a>

### Ferrule

Ferrule	
<b>Item no.: 216-101</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-101">www.wago.com/216-101</a>
<b>Item no.: 216-104</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-104">www.wago.com/216-104</a>
<b>Item no.: 216-106</b> Ferrule; Sleeve for 2.5 mm <sup>2</sup> / AWG 14; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-106">www.wago.com/216-106</a>
<b>Item no.: 216-102</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-102">www.wago.com/216-102</a>
<b>Item no.: 216-103</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-103">www.wago.com/216-103</a>
<b>Item no.: 216-123</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-123">www.wago.com/216-123</a>
<b>Item no.: 216-122</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated; silver-colored	<a href="http://www.wago.com/216-122">www.wago.com/216-122</a>
<b>Item no.: 216-124</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-124">www.wago.com/216-124</a>
<b>Item no.: 216-142</b> 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	<a href="http://www.wago.com/216-142">www.wago.com/216-142</a>
<b>Item no.: 216-132</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-132">www.wago.com/216-132</a>
<b>Item no.: 216-121</b>	

Subject to changes. Please also observe the further product documentation!



Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-121](http://www.wago.com/216-121)

**Item no.: 216-143**

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

[www.wago.com/216-143](http://www.wago.com/216-143)

**Item no.: 216-131**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated; silver-colored

[www.wago.com/216-131](http://www.wago.com/216-131)

**Item no.: 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

[www.wago.com/216-141](http://www.wago.com/216-141)

**Item no.: 216-152**

Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

[www.wago.com/216-152](http://www.wago.com/216-152)

**Item no.: 216-203**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

[www.wago.com/216-203](http://www.wago.com/216-203)

**Item no.: 216-202**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

[www.wago.com/216-202](http://www.wago.com/216-202)

**Item no.: 216-151**

Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

[www.wago.com/216-151](http://www.wago.com/216-151)

**Item no.: 216-204**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

[www.wago.com/216-204](http://www.wago.com/216-204)

**Item no.: 216-144**

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; silver-colored

[www.wago.com/216-144](http://www.wago.com/216-144)

**Item no.: 216-201**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-201](http://www.wago.com/216-201)

**Item no.: 216-223**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

[www.wago.com/216-223](http://www.wago.com/216-223)

**Item no.: 216-241**

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

[www.wago.com/216-241](http://www.wago.com/216-241)

**Item no.: 216-242**

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

[www.wago.com/216-242](http://www.wago.com/216-242)

**Item no.: 216-222**

Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

[www.wago.com/216-222](http://www.wago.com/216-222)

**Item no.: 216-221**

Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-221](http://www.wago.com/216-221)

**Item no.: 216-224**

Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

[www.wago.com/216-224](http://www.wago.com/216-224)

**Item no.: 216-243**

Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; [www.wago.com/216-243](http://www.wago.com/216-243)

Subject to changes. Please also observe the further product documentation!

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acc. to DIN 46228, Part 4/09.90; red

**Item no.: 216-244**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[www.wago.com/216-244](http://www.wago.com/216-244)**Item no.: 216-263**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[www.wago.com/216-263](http://www.wago.com/216-263)**Item no.: 216-264**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[www.wago.com/216-264](http://www.wago.com/216-264)**Item no.: 216-262**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[www.wago.com/216-262](http://www.wago.com/216-262)**Item no.: 216-301**Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow[www.wago.com/216-301](http://www.wago.com/216-301)**Item no.: 216-321**Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow[www.wago.com/216-321](http://www.wago.com/216-321)**Item no.: 216-322**Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise[www.wago.com/216-322](http://www.wago.com/216-322)**Item no.: 216-302**Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; light turquoise[www.wago.com/216-302](http://www.wago.com/216-302)**Tool**

Operating tool

**Item no.: 210-657**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

[www.wago.com/210-657](http://www.wago.com/210-657)**Item no.: 210-658**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured

[www.wago.com/210-658](http://www.wago.com/210-658)**Item no.: 210-720**

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

[www.wago.com/210-720](http://www.wago.com/210-720)**Testing and measuring**

Testing accessories

**Item no.: 231-155**Testing plug module with contact stud; Pin spacing 5 mm / 0.197 in; 2,50 mm<sup>2</sup>; gray[www.wago.com/231-155](http://www.wago.com/231-155)**Item no.: 231-126**Testing plug module with contact stud; for 280, 736, 737, 738, 780 Series; Pin spacing 5 mm / 0.197 in; 2,50 mm<sup>2</sup>; gray[www.wago.com/231-126](http://www.wago.com/231-126)**Downloads****Documentation****Additional Information**

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## CAD/CAE-Data

### CAE data

EPLAN Data Portal 738-104

URL

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ZUKEN Portal 738-104

URL

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### PCB Design

Symbol and Footprint 738-104

URL

Download

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:

- 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

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- Zuken CadStar 3 and 4
- Zuken CR-5000 and CR-8000

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

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#### CAD data

2D/3D Models 738-104	<a href="#">URL</a>	<a href="#">Download</a>
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### Environmental Product Compliance

#### Compliance Search

Environmental Product Compliance 738-104 Quadruple-deck PCB terminal block; 2.5 mm <sup>2</sup> ; Pin spacing 5 mm; 16-pole; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray	<a href="#">URL</a>	<a href="#">Download</a>
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### Installation Notes

#### Conductor termination



Inserting a conductor via 3.5 mm screwdriver.

Screwdriver actuation parallel to conductor entry

#### Installation

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Subject to changes. Please also observe the further product documentation!



Low space requirements due to high-density design

Double-deck PCB terminal strip – 736 Series



**Possible combination:**

Double- (736 Series) and triple-deck PCB terminal strips (737 Series) upon request



**Possible combination:**

Double- (736 Series) and triple-deck PCB terminal strips (737 Series) upon request



**Possible combination:**

Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

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Subject to changes. Please also observe the further product documentation!



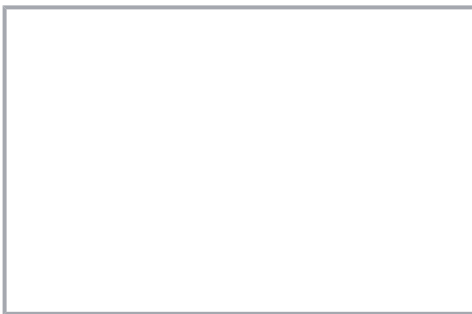
**Possible combination:**

Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

**Marking**



**Testing**



Testing via contact area above the conductors.

Subject to changes. Please also observe the further product documentation!