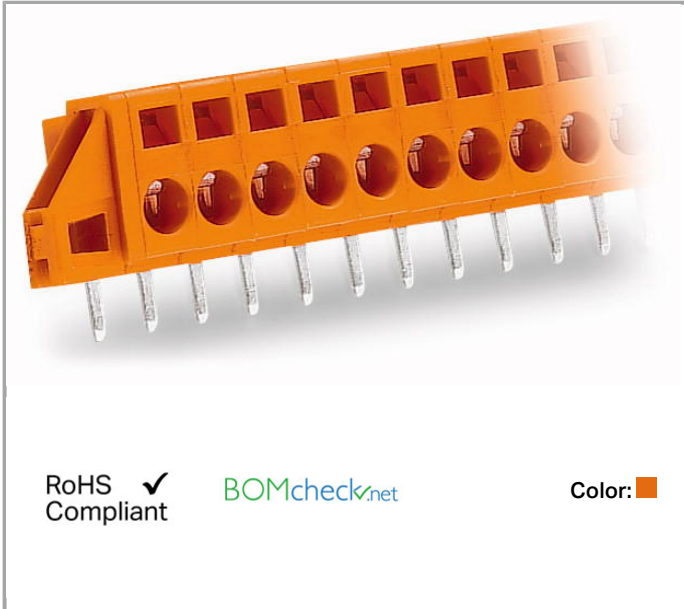


Data sheet | Item number: 231-639/023-000

PCB terminal block; 2.5 mm<sup>2</sup>; Pin spacing 5.08 mm; 9-pole; CAGE CLAMP®; clamping collar



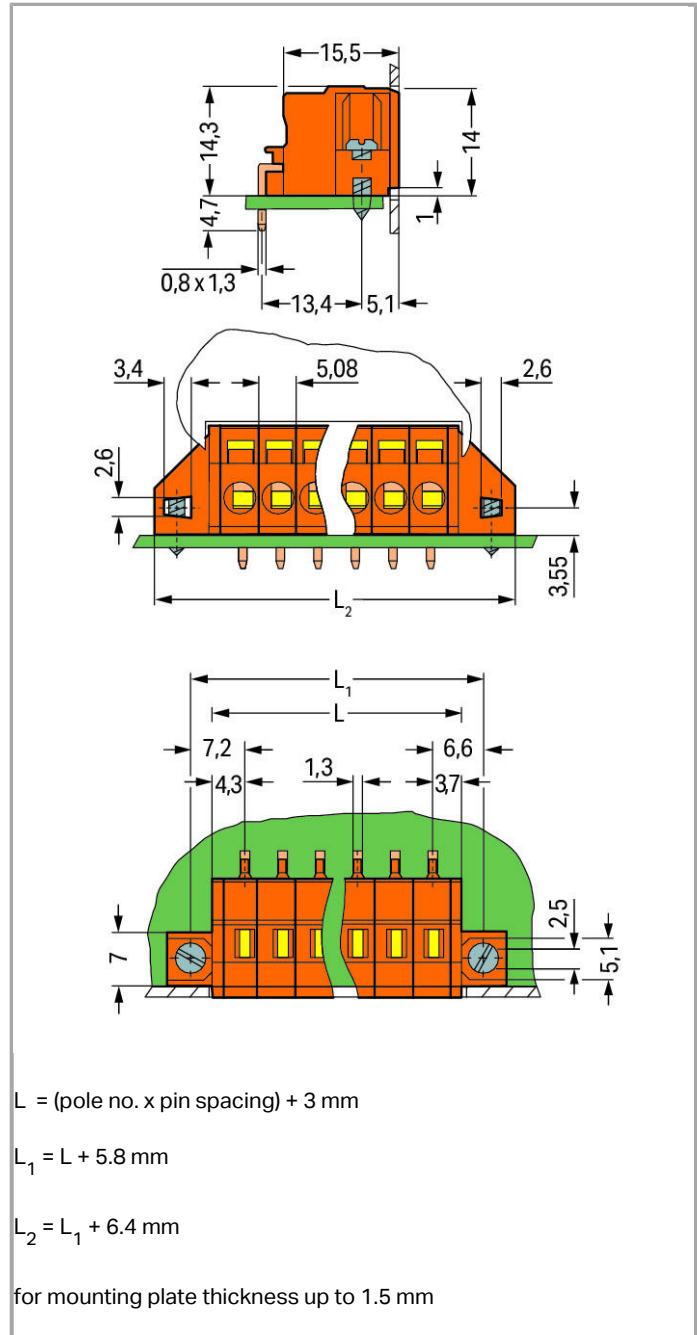
[www.wago.com/231-639/023-000](http://www.wago.com/231-639/023-000)



RoHS  
Compliant ✓

BOMcheck.net

Color: ■



### Item description

- Feedthrough PCB terminal strips with screwdriver-actuated CAGE CLAMP®
- With flanges for PCB or front-panel mounting – either flush with enclosure or protruding



Other variants can be requested via the WAGO sales department or, if necessary, configured at <https://configurator.wago.com/>: Direct marking, Other colors, Other pole numbers, Versions without mounting flanges

## Data

### Electrical data

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

Rated voltage (III / 3)	320 V
Rated impulse voltage (III / 3)	4 kV
Rated voltage (III / 2)	320 V
Rated impulse voltage (III / 2)	4 kV
Rated voltage (II / 2)	630 V
Rated impulse voltage (II / 2)	4 kV
Rated current	16 A
Legend (ratings)	(III / 2) $\hat{=}$ 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 C)	150 V
Rated current UL (Use Group C)	15 A
Rated voltage UL (Use Group D)	300 V
Rated current UL (Use Group D)	10 A

#### Approvals per CSA

Rated voltage CSA (Use Group B)	300 V
Rated current CSA (Use Group B)	15 A
Rated voltage CSA (Use Group C)	150 V
Rated current CSA (Use Group C)	15 A
Rated voltage CSA (Use Group D)	300 V
Rated current CSA (Use Group D)	10 A

### Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 ... 1.5 mm <sup>2</sup>
Fine-stranded conductor with ferrule without plastic collar	0.25 ... 2.5 mm <sup>2</sup>



Strip length	8 ... 9 mm / 0.31 ... 0.35 Inch
Conductor entry angle to the PCB	0°
No. of poles	9
Total number of connection points	9
Total number of potentials	9
Number of connection types	1
Number of levels	1

### Geometrical Data

Pin spacing	5.08 mm (0.2 inch)
Width	60.92 mm / 2.398 inch
Height	19 mm / 0.748 inch
Height from the surface	14.3 mm / 0.563 inch
Depth	19.1 mm / 0.752 inch
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter (tolerance)	1.8 <sup>(+ 0.1)</sup> mm

### Mechanical data

Gehäuseblechstärke	1.5 ... 1.5 mm / 0.059 ... 0.059 inch
Mounting type	Mounting flange
Type of mounting	Feed-through mounting Panel mounting

### 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	orange
Material group	I
Insulating material	Polyamide 66 (PA 66)
Flammability class per UL94	V0
Clamping spring material	Chrome nickel spring steel (CrNi)
Contact material	Electrolytic copper (Ecu)
Contact plating	tin-plated
Fire load	0.205 MJ
Weight	12.998 g

## Environmental Requirements

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

## Commercial data

Country of origin	DE
GTIN	4044918283229
Customs Tariff No.	85366990990
Product Group	3 (Multi Conn. System)

## Approvals / Certificates

### UL-Approvals




Logo	Approval	Certificate name
	UR Underwriters Laboratories Inc.	E45172

## Compatible products





### Strain relief plate

	Item no.: 232-639 Strain relief housing	<a href="http://www.wago.com/232-639">www.wago.com/232-639</a>
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### assembling

	Item no.: 209-147 Self-tapping screw	<a href="http://www.wago.com/209-147">www.wago.com/209-147</a>
	Item no.: 231-194 Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø	<a href="http://www.wago.com/231-194">www.wago.com/231-194</a>
	Item no.: 231-195 Screw with nut; M2x12; for fixing element	<a href="http://www.wago.com/231-195">www.wago.com/231-195</a>

### tools

	Item no.: 210-250 Operating tool; for female and male connectors with CAGE CLAMP® connection; MCS MIDI & MINI	<a href="http://www.wago.com/210-250">www.wago.com/210-250</a>
	Item no.: 210-657 Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short	<a href="http://www.wago.com/210-657">www.wago.com/210-657</a>
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	<a href="http://www.wago.com/210-720">www.wago.com/210-720</a>
	Item no.: 231-131 Push-button; for female and male connectors; loose	<a href="http://www.wago.com/231-131">www.wago.com/231-131</a>
	Item no.: 231-159	



Operating tool; for male and female connectors with CAGE CLAMP®; of Series 231, 232, 721, 722, 723, [www.wago.com/231-159](http://www.wago.com/231-159)  
731, 732



**Item no.: 231-231**  
Combination operating tool; for male and female connectors with CAGE CLAMP® [www.wago.com/231-231](http://www.wago.com/231-231)



**Item no.: 231-291**  
Operating tool; for male and female connectors with CAGE CLAMP®; loose [www.wago.com/231-291](http://www.wago.com/231-291)

## Jumper



**Item no.: 231-902**  
Comb-style jumper bar; for 5 mm and 5.08 mm pin spacing; reduces conductor size to 1.5 mm [www.wago.com/231-902](http://www.wago.com/231-902)



**Item no.: 231-903**  
Comb-style jumper bar; 3-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated [www.wago.com/231-903](http://www.wago.com/231-903)



**Item no.: 231-905**  
Comb-style jumper bar; 5-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated [www.wago.com/231-905](http://www.wago.com/231-905)



**Item no.: 231-907**  
Comb-style jumper bar; 7-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated [www.wago.com/231-907](http://www.wago.com/231-907)



**Item no.: 231-910**  
Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated [www.wago.com/231-910](http://www.wago.com/231-910)

## Marking accessories



**Item no.: 210-833**  
Marking strips; on reel; 6 mm wide; plain; Self-adhesive [www.wago.com/210-833](http://www.wago.com/210-833)



**Item no.: 210-834**  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive [www.wago.com/210-834](http://www.wago.com/210-834)

## Coding



**Item no.: 231-129**  
Coding key; snap-on type [www.wago.com/231-129](http://www.wago.com/231-129)

## ferrule



**Item no.: 216-101**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated [www.wago.com/216-101](http://www.wago.com/216-101)



**Item no.: 216-102**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated [www.wago.com/216-102](http://www.wago.com/216-102)






















**Item no.: 216-103**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated [www.wago.com/216-103](http://www.wago.com/216-103)
















**Item no.: 216-104**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated [www.wago.com/216-104](http://www.wago.com/216-104)





**Item no.: 216-106**  
Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated [www.wago.com/216-106](http://www.wago.com/216-106)

	<b>Item no.: 216-121</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-121">www.wago.com/216-121</a>
	<b>Item no.: 216-122</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-122">www.wago.com/216-122</a>
	<b>Item no.: 216-123</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-123">www.wago.com/216-123</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.: 216-131</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; uninsulated; electro-tin plated	<a href="http://www.wago.com/216-131">www.wago.com/216-131</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.: 216-141</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	<a href="http://www.wago.com/216-141">www.wago.com/216-141</a>
	<b>Item no.: 216-142</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; 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.: 216-143</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>Item no.: 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>Item no.: 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>Item no.: 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>Item no.: 216-201</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; insulated; electro-tin plated	<a href="http://www.wago.com/216-201">www.wago.com/216-201</a>
	<b>Item no.: 216-202</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated	<a href="http://www.wago.com/216-202">www.wago.com/216-202</a>
	<b>Item no.: 216-203</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated	<a href="http://www.wago.com/216-203">www.wago.com/216-203</a>
	<b>Item no.: 216-204</b> Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated	<a href="http://www.wago.com/216-204">www.wago.com/216-204</a>
	<b>Item no.: 216-221</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; insulated; electro-tin plated	<a href="http://www.wago.com/216-221">www.wago.com/216-221</a>
	<b>Item no.: 216-222</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated	<a href="http://www.wago.com/216-222">www.wago.com/216-222</a>
	<b>Item no.: 216-223</b> Ferrule; Sleeve for 1 mm <sup>2</sup> / AWG 18; insulated; electro-tin plated	<a href="http://www.wago.com/216-223">www.wago.com/216-223</a>
	<b>Item no.: 216-224</b>	

	Ferrule; Sleeve for 1.5 mm <sup>2</sup> / AWG 16; insulated; electro-tin plated	<a href="http://www.wago.com/216-224">www.wago.com/216-224</a>
	<b>Item no.: 216-241</b> Ferrule; Sleeve for 0.5 mm <sup>2</sup> / AWG 22; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-241">www.wago.com/216-241</a>
	<b>Item no.: 216-242</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-242">www.wago.com/216-242</a>
	<b>Item no.: 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	<a href="http://www.wago.com/216-243">www.wago.com/216-243</a>
	<b>Item no.: 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	<a href="http://www.wago.com/216-244">www.wago.com/216-244</a>
	<b>Item no.: 216-262</b> Ferrule; Sleeve for 0.75 mm <sup>2</sup> / AWG 20; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90	<a href="http://www.wago.com/216-262">www.wago.com/216-262</a>
	<b>Item no.: 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	<a href="http://www.wago.com/216-263">www.wago.com/216-263</a>
	<b>Item no.: 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	<a href="http://www.wago.com/216-264">www.wago.com/216-264</a>
	<b>Item no.: 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	<a href="http://www.wago.com/216-284">www.wago.com/216-284</a>
	<b>Item no.: 216-301</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-301">www.wago.com/216-301</a>
	<b>Item no.: 216-302</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-302">www.wago.com/216-302</a>
	<b>Item no.: 216-321</b> Ferrule; Sleeve for 0.25 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-321">www.wago.com/216-321</a>
	<b>Item no.: 216-322</b> Ferrule; Sleeve for 0.34 mm <sup>2</sup> / AWG 24; insulated; electro-tin plated	<a href="http://www.wago.com/216-322">www.wago.com/216-322</a>

**Insulation stop**

	<b>Item no.: 231-670</b> Insulation stop; 0.08-0.2 mm <sup>2</sup> / 0.2 mm <sup>2</sup> "s"	<a href="http://www.wago.com/231-670">www.wago.com/231-670</a>
	<b>Item no.: 231-671</b> Insulation stop; 0.25 - 0.5 mm <sup>2</sup>	<a href="http://www.wago.com/231-671">www.wago.com/231-671</a>
	<b>Item no.: 231-672</b> Insulation stop; 0.75 - 1 mm <sup>2</sup>	<a href="http://www.wago.com/231-672">www.wago.com/231-672</a>

**General accessories**

	<b>Item no.: 231-668</b> Lockout caps; for covering unused clamping units	<a href="http://www.wago.com/231-668">www.wago.com/231-668</a>
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Item no.: 231-669

Lockout caps; for covering unused clamping units

[www.wago.com/231-669](http://www.wago.com/231-669)

Subject to changes.

WAGO Kontakttechnik GmbH & Co. KG

Hansastr. 27

32423 Minden

Phone: +49571 887-0 | Fax: +49571 887-169

Email: [info.de@wago.com](mailto:info.de@wago.com) | Web: [www.wago.com](http://www.wago.com)

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.