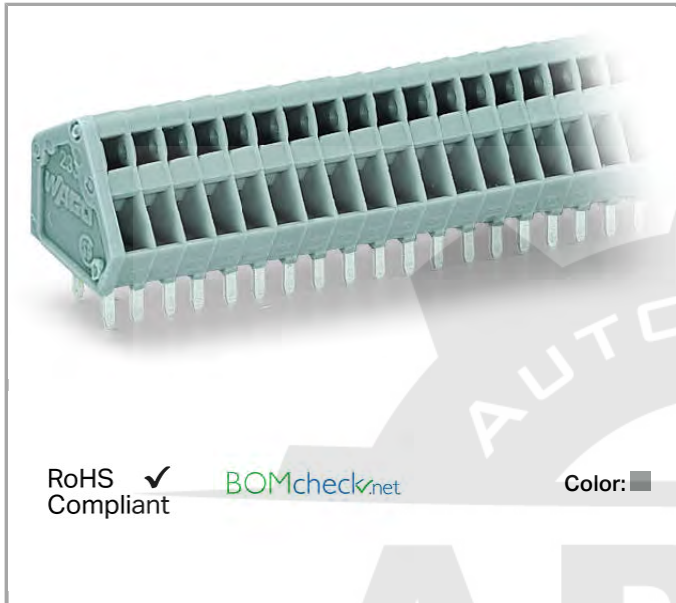


Data sheet | Item number: 233-109

PCB terminal block; 0.5 mm²; Pin spacing 2.5 mm; 9-pole; CAGE CLAMP®



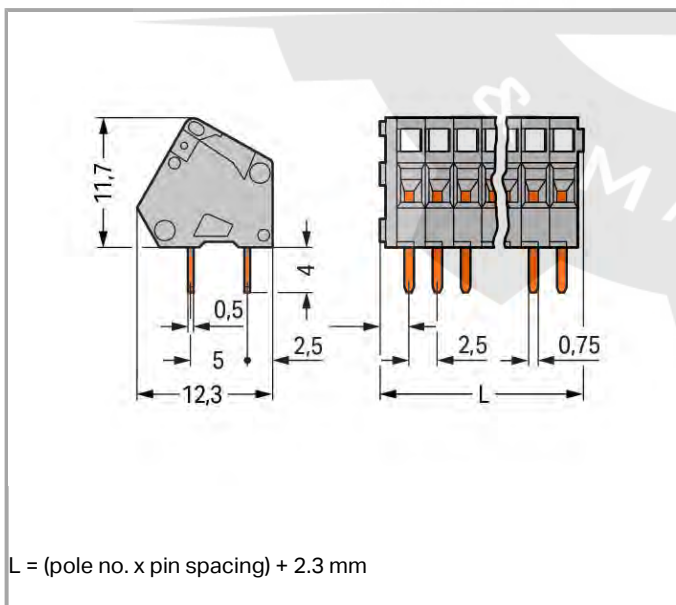
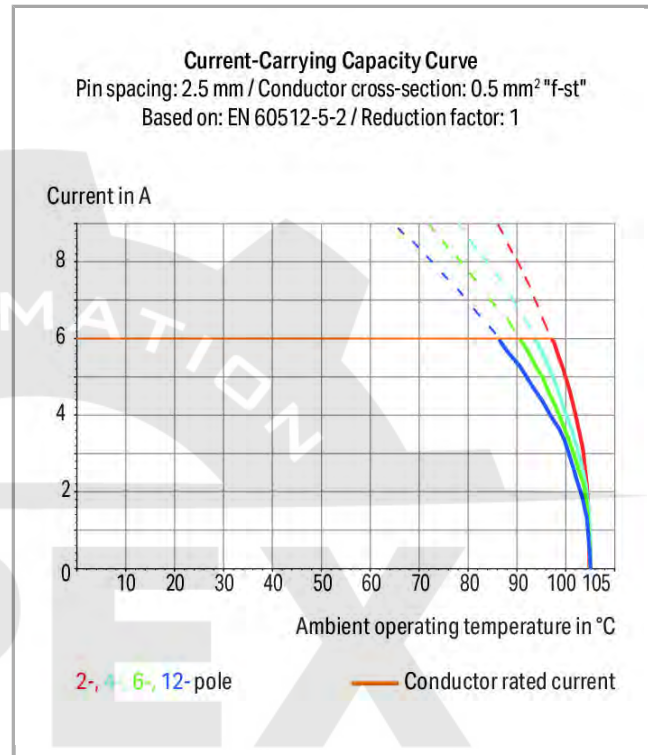
233-109



RoHS
Compliant

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

Color: ■



Item description

- Compact terminal strips with CAGE CLAMP® connection and screwdriver actuation parallel or perpendicular to conductor entry

- Double solder pins for high mechanical stability
- Custom color combinations

Data

Electrical data

Ratings per IEC/EN 60664-1

Rated voltage (III / 3)	63 V
Rated impulse voltage (III / 3)	2.5 kV
Rated voltage (III / 2)	160 V
Rated impulse voltage (III / 2)	2.5 kV
Rated voltage (II / 2)	320 V
Rated impulse voltage (II / 2)	2.5 kV
Rated current	6 A

Approvals per UL 1059

Rated voltage UL (Use Group B)	150 V
Rated current UL (Use Group B)	4 A

Approvals per CSA

Rated voltage CSA (Use Group B)	150 V
Rated current CSA (Use Group B)	4 A

Connection data

Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor	0.08 ... 0.5 mm ² / 28 ... 20 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 mm ²
Fine-stranded conductor with ferrule without plastic collar	0.25 mm ²
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Conductor entry angle to the PCB	30°
Note (conductor cross-section)	Terminating 0.75 mm ² /18 AWG conductors is possible; however insulation diameter allows only every other clamping unit to be terminated with this conductor size.
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	2.5 mm / 0.098 inch
Width	24.8 mm / 0.976 inch
Height	15.7 mm / 0.618 inch
Height from the surface	11.7 mm / 0.461 inch
Depth	12.1 mm / 0.476 inch
Solder pin length	4 mm
Solder pin dimensions	0.5 x 0.75 mm
Drilled hole diameter (tolerance)	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	2

Material Data

Color	gray
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 (E _{Cu})
Contact plating	tin-plated
Fire load	0.04 MJ
Weight	3.123 g

Environmental Requirements

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

Commercial data

Product Group	4 (Printed Circuit)
Country of origin	CH
GTIN	4045454049232
Customs Tariff No.	85369010000

Approvals / Certificates

Country specific Approvals

Certificate

Logo	Approval	Additional Approval Text	name
	CCA DEKRA Certification B.V.	EN 60998	NTR NL 6946
	CCA DEKRA Certification B.V.	EN 60998	2153951.01
	CCA DEKRA Certification B.V.	EN 60947-7-4	2169331.02
	CSA DEKRA Certification B.V.	C22.2	1465035
	CSA DEKRA Certification B.V.	C22.2	1465035

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	14- HG1241537- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAE000016Z

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Germany GmbH	UL 1059	E45172

Compatible products

tools

**Item no.: 210-647**

Operating tool with partially insulated shaft; Blade (2.5 x 0.4) mm; short

210-647

**Item no.: 210-648**

Operating tool with partially insulated shaft; Blade (2.5 x 0.4) mm; short; angled

210-648

**Item no.: 210-719**

Operating tool with partially insulated shaft; Type 1, blade (2.5 x 0.4) mm

210-719

**Item no.: 233-331**

Operating tool; for female and male connectors with CAGE CLAMP® connection; insulated

233-331

**Item no.: 233-332**

Operating tool; for 233 and 733 Series; of insulating material

233-332

**Item no.: 233-335**

Operating tool; for 233 and 733 Series

233-335

Marking accessories**Item no.: 210-331/250-202**

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 250-202

210-331

Item no.: 210-331/250-204

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 250-204

210-331

Item no.: 210-331/250-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 250-206

210-331

Item no.: 210-331/250-207

Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 250-207

210-331

Item no.: 210-331/254-202

Marking strips; as a DIN A4 sheet; MARKED; 1-16 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 254-202

210-331

Item no.: 210-331/254-204

Marking strips; as a DIN A4 sheet; MARKED; 17-32 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 254-204

210-331

Item no.: 210-331/254-206

Marking strips; as a DIN A4 sheet; MARKED; 33-48 (400x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 254-206

210-331

Item no.: 210-331/254-207

Marking strips; as a DIN A4 sheet; MARKED; 1-48 (100x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive

/ 254-207

210-331

ferrule**Item no.: 216-131**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

216-131

**Item no.: 216-151**Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

216-151



Item no.: 216-301

216-301

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated

Item no.: 216-321

216-321

Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated

Downloads

CAD/CAE - Smart Data

CAD data

3D Download 233-109		URL	Download
PCB libraries			
TARGET Library for WAGO PCB Terminal Blocks Compatible with TARGET PCB Design Software Version 17.x	1.1.0 Oct 6, 2014	zip 27.1 MB	Download
EAGLE Library for WAGO PCB Terminal Blocks Compatible with EAGLE PCB Design Software Version 6.x or higher	2.1 Oct 6, 2014	zip 23.9 MB	Download
DesignSpark Library for WAGO PCB Terminal Blocks Compatible with DesignSpark PCB Version 4.x or higher	2.1 Oct 6, 2014	zip 22.5 MB	Download

Subject to changes.