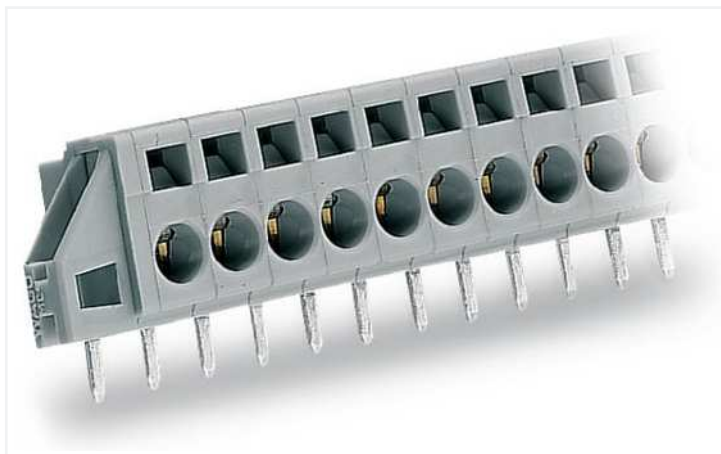


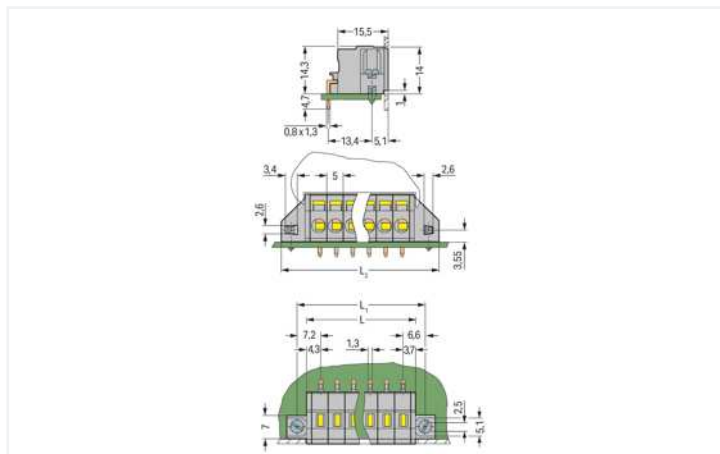
Data Sheet | Item Number: 231-610/023-000

PCB terminal block; 2.5 mm²; Pin spacing 5 mm; 10-pole; CAGE CLAMP®; clamping collar; 2,50 mm²; gray

<https://www.wago.com/231-610/023-000>



Color: ■ gray



Dimensions in mm
 $L = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$
 $L1 = L + 5.8 \text{ mm}$
 $L2 = L1 + 6.4 \text{ mm}$
 for plate thickness up to 1.5 mm

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

Notes

Variants:

Other pole numbers
 Other colors
 Direct marking
 Versions without mounting flanges
 Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

Electrical data

Ratings per	IEC/EN 60664-1		
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	320 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Rated current	16 A	16 A	16 A

Approvals per	UL 1059		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Approvals per	CSA		
Use group	B	C	D
Rated voltage	300 V	150 V	300 V
Rated current	15 A	15 A	10 A

Connection data

Connection points	10
Total number of potentials	10
Number of connection types	1
Number of levels	1

Connection 1	
Connection technology	CAGE CLAMP®
Actuation type	Operating tool
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm ²
Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm ²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Conductor connection direction to PCB	0 °
Pole number	10

Physical data

Pin spacing	5 mm / 0.197 inches
Width	65.2 mm / 2.567 inches
Height	19 mm / 0.748 inches
Height from the surface	14.3 mm / 0.563 inches
Depth	19.1 mm / 0.752 inches
Solder pin length	4.7 mm
Solder pin dimensions	0.8 x 1.3 mm
Drilled hole diameter with tolerance	1.8 ^(+0.1) mm
PCB thickness (max.)	1.5 mm

Mechanical data

Mounting type	Mounting flange 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

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 _{cu})
Contact plating	Tin
Fire load	0.368 MJ
Weight	14 g

Environmental requirements

Limit temperature range	-60 ... +105 °C
Processing temperature	-35 ... +60 °C

Commercial data

Product Group	3 (Multi Conn. System)
eCl@ss 10.0	27-44-03-09
eCl@ss 9.0	27-44-03-09
ETIM 8.0	EC002637
ETIM 7.0	EC002637
PU (SPU)	25 pcs
Packaging type	Box
Country of origin	DE
GTIN	4044918279857
Customs tariff number	85369010000

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
------------------------	-------------------------

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-39756/A1
CSA DEKRA Certification B.V.	C22.2	1466354
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
UR Underwriters Laboratories Inc.	UL 1977	E45171

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1869876-PDA
BV Bureau Veritas S.A.	IEC 60998	11915/D0 BV
DNV DNV GL SE	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product
Compliance
231-610/023-000



Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2010.85 KB	

CAD/CAE-Data

CAD data
2D/3D Models 231-610/023-000

CAE data
EPLAN Data Portal 231-610/023-000

ZUKEN Portal 231-610/023-000

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule

 Item No.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	 Item No.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	 Item No.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated; silver-colored
 Item No.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	 Item No.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; light turquoise	 Item No.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated
 Item No.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	 Item No.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	 Item No.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	 Item No.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92
 Item No.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-242 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray	 Item No.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray
 Item No.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-142 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	 Item No.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored
 Item No.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-243 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	 Item No.: 216-263 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red	 Item No.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red

1.1.1.1 Ferrule



Item No.: 216-223
 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

Item No.: 216-103
 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated

Item No.: 216-143
 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

Item No.: 216-123
 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; silver-colored



Item No.: 216-204
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-224
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black

Item No.: 216-244
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-264
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black



Item No.: 216-284
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black

Item No.: 216-124
 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated

Item No.: 216-144
 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored

Item No.: 216-104
 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored



Item No.: 216-106
 Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; electro-tin plated; silver-colored

1.1.2 Installation

1.1.2.1 Mounting accessories



Item No.: 231-195
 Screw with nut; M2x12; for fixing element

Item No.: 209-147
 Self-tapping screw

Item No.: 231-194
 Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

1.1.3 Marking

1.1.3.1 Marking strip



Item No.: 210-332/500-202
 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

Item No.: 210-332/500-205
 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

Item No.: 210-332/500-204
 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

Item No.: 210-332/500-206
 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

1.1.4 Tool

1.1.4.1 Operating tool



Item No.: 210-720
 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Item No.: 210-657
 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured

Installation Notes

Conductor termination



Feedthrough PCB terminal strips – front-entry conductor termination

Application



Feedthrough PCB terminal strips can be used as front-panel feedthrough for external conductor termination.

Application



With flanges for PCB or front-panel mounting – either flush with enclosure or protruding