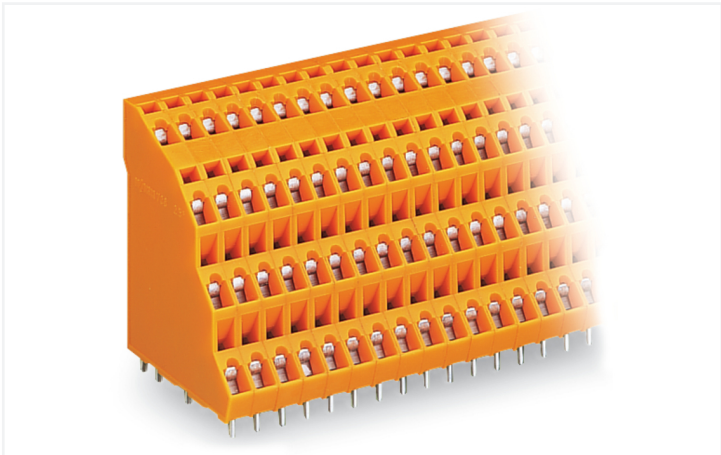
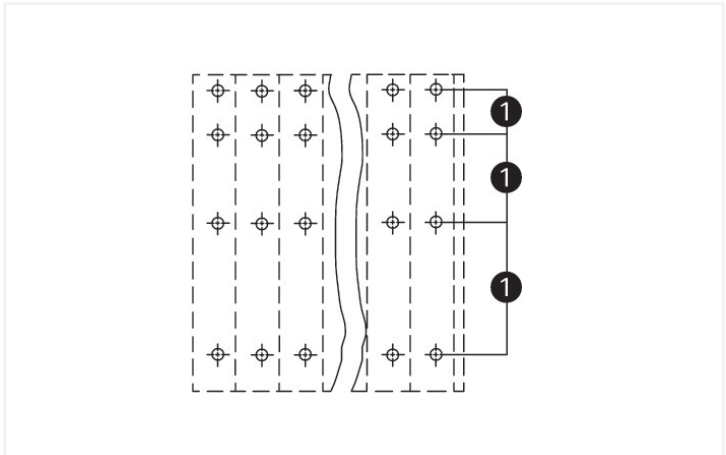


Data Sheet | Item Number: 738-312
 Quadruple-deck PCB terminal block; 2.5 mm²; Pin spacing 5.08 mm; 48-pole; CAGE CLAMP®; orange
<https://www.wago.com/738-312>

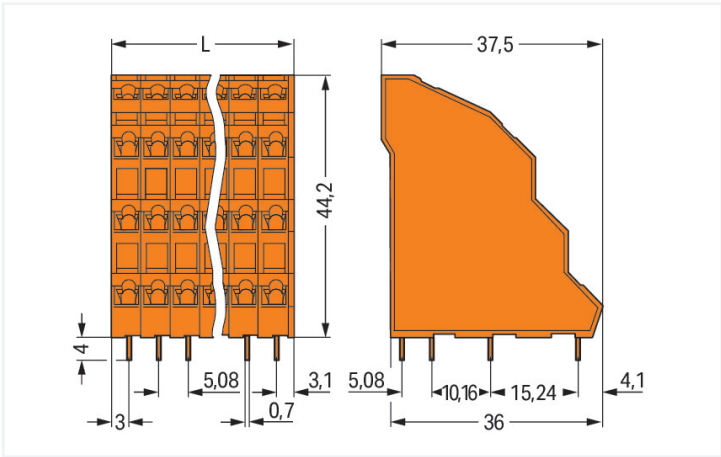


Color: ■ orange

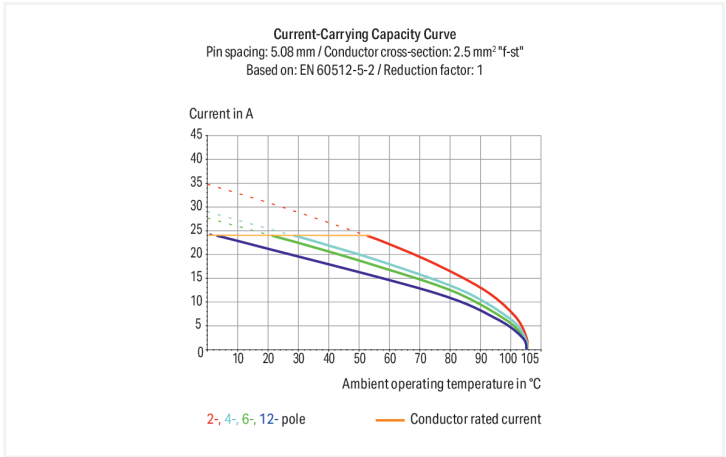
Similar to illustration



Dimensions in mm
 (1) Solder pins in line



Dimensions in mm
 $L = ((\text{pole no.} / 4) \times \text{pin spacing}) + 1 \text{ mm}$



PCB terminal block, 738 Series, CAGE CLAMP®

This PCB terminal block (item number 738-312) is designed for quick and easy connections. You can rely on tried and tested safety with these PCB terminal blocks, perfect for a wide variety of applications when designing your devices. Our PCB terminal block is rated for 320 V and is designed for use with a rated current of up to 18 A. As such, it is suitable for high-load applications. Ensure that the strip lengths are between 5 mm and 6 mm when connecting conductors to this PCB terminal block. Featuring one conductor terminal along with CAGE CLAMP®, this product is highly versatile. Our highly-rated and maintenance-free CAGE CLAMP® connection makes it easy to connect all types of conductors without having to prepare the conductor. For example, you don't need to crimp ferrules. The item's dimensions are 61.96 x 48.2 x 37.5 mm (width x height x depth). Depending on the type of conductor, this PCB terminal block is designed for conductor cross sections ranging from 0.08 mm² to 2.5 mm². Up to forty-eight potentials / forty-eight poles can be connected to this terminal strip using forty-eight clamping points on four levels. The contacts are made of electrolytic copper (ECu), the orange housing is made of polyamide (PA66) for insulation, and the clamping spring is made of chrome-nickel spring steel (CrNi). The contact surface is coated with tin. An operating tool is used to operate this PCB terminal block. The PCB terminal block is designed for THT soldering. Insert the conductor at a 45° angle.. The solder pins measure 0.7 x 0.7 mm in cross-section and 4 mm in length and are organized within the terminal block (in-line). There are one solder pin per potential.



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 https://configurator.wago.com/ .

Electrical data							
Ratings between the modules				Ratings between the decks			
Ratings per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1	Ratings per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1
Overvoltage category	III	III	II	Overvoltage category	III	III	II
Pollution degree	3	2	2	Pollution degree	3	2	2
Nominal voltage	250 V	320 V	630 V	Nominal voltage	320 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV	Rated surge voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A	Rated current	18 A	18 A	18 A
Approvals per UL 1059				Approvals per CSA			
Use group	B	C	D	Use group	B	C	D
Rated voltage	300 V	-	300 V	Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A	Rated current	10 A	-	10 A

Connection data		Connection 1	
Clamping units	48	Connection technology	CAGE CLAMP®
Total number of potentials	48	Actuation type	Operating tool
Number of connection types	1	Solid conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Number of levels	4	Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
		Fine-stranded conductor; with insulated ferrule	0.25 ... 1.5 mm²
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm²
		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	48

Physical data	
Pin spacing	5.08 mm / 0.2 inches
Width	61.96 mm / 2.439 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
Solder pin length	4 mm
Solder pin dimensions	0.7 x 0.7 mm
Drilled hole diameter with tolerance	1.3 (+0.1) 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		orange
Material group		I
Insulation material (main housing)		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		0.993 MJ
Weight		72.6 g

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

Commercial data		
Product Group		4 (Printed Circuit Connectors)
PU (SPU)		12 pcs
Packaging type		Box
Country of origin		PL
GTIN		4045454162122
Customs tariff number		85369010000

Product classification		
UNSPSC		39121409
eCl@ss 10.0		27-44-04-01
eCl@ss 9.0		27-44-04-01
ETIM 9.0		EC002643
ETIM 8.0		EC002643
ECCN		NO US CLASSIFICATION

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption



Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	2160584.20
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7103
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL 7817
CCA DEKRA Certification B.V.	EN 60947-7-4	71-112779
CSA DEKRA Certification B.V.	C22.2 No. 158	1711139
UR Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

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 738-312







Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB
Gebrückte Klemmen- leisten für Leiterplatten
pdf 303.71 KB





CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 738-312	EPLAN Data Portal 738-312
	
	ZUKEN Portal 738-312
	




PCB Design	
Symbol and Footprint via SamacSys 738-312	
Symbol and Footprint via Ultra Librarian 738-312	

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 mm² / AWG 24; insulated; electro-tin plated; yellow	 Item No.: 216-321 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow	 Item No.: 216-151 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored
 Item No.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	 Item No.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise	 Item No.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated	 Item No.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated
 Item No.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; acc. to DIN 46228, Part 4/09.90; white	 Item No.: 216-241 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white	 Item No.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	 Item No.: 216-141 Ferrule; Sleeve for 0.5 mm² / 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 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-242 Ferrule; Sleeve for 0.75 mm² / 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 mm² / 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 mm² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-142 Ferrule; Sleeve for 0.75 mm² / 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 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored
 Item No.: 216-122 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored	 Item No.: 216-243 Ferrule; Sleeve for 1 mm² / 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 mm² / 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 mm² / 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; uninsulated; electro-tin plated



Item No.: 216-143
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; 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; uninsulated; 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; uninsulated; electro-tin plated



Item No.: 216-144
Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; 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; uninsulated; electro-tin plated; silver-colored



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

1.1.2 Marking

1.1.2.1 Marking strip



Item No.: 210-332/508-202
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.: 210-332/508-205
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.: 210-332/508-204
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.: 210-332/508-206
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

1.1.3 Test and measurement

1.1.3.1 Testing accessories



Item No.: 231-426
Testing plug module with contact stud; orange



Item No.: 231-455
Testing plug module with contact stud; Pin spacing 5.08 mm / 0.2 in; 2,50 mm²; orange

1.1.4 Tool

1.1.4.1 Operating tool



Item No.: 210-658
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; angled; short; multicoloured



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

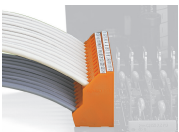
Installation Notes

Conductor termination



Inserting a conductor via 3.5 mm screwdriver.
Screwdriver actuation parallel to conductor entry

Installation



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

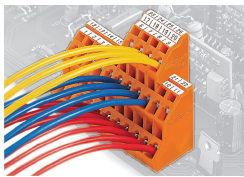


Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

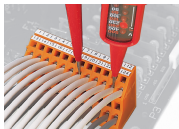


Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

Marking



Testing



Testing via contact area above the conductors.