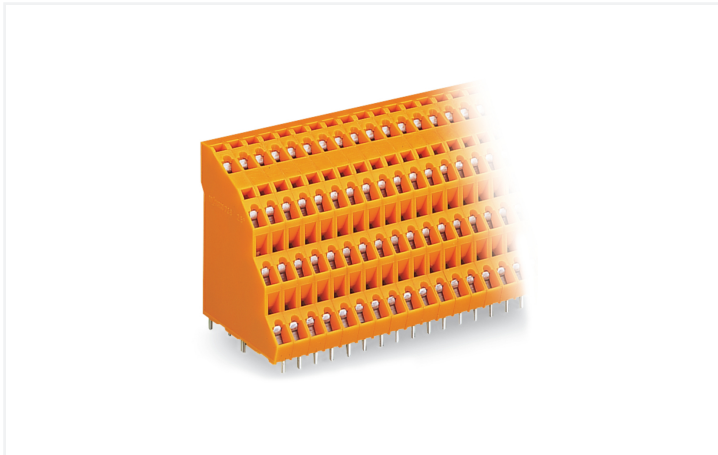


Data Sheet | Item Number: 738-412

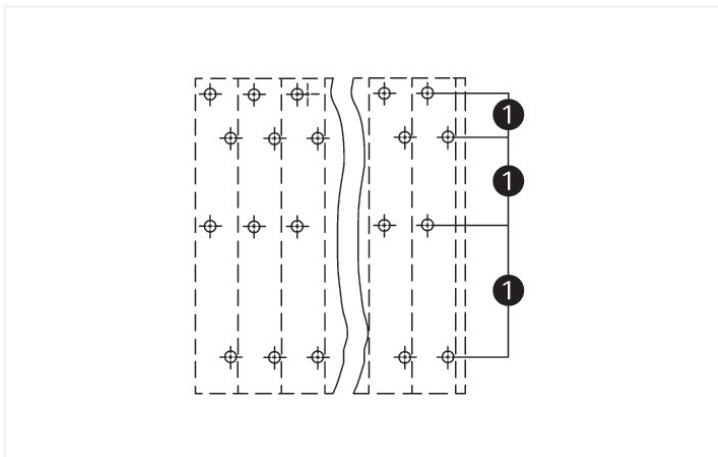
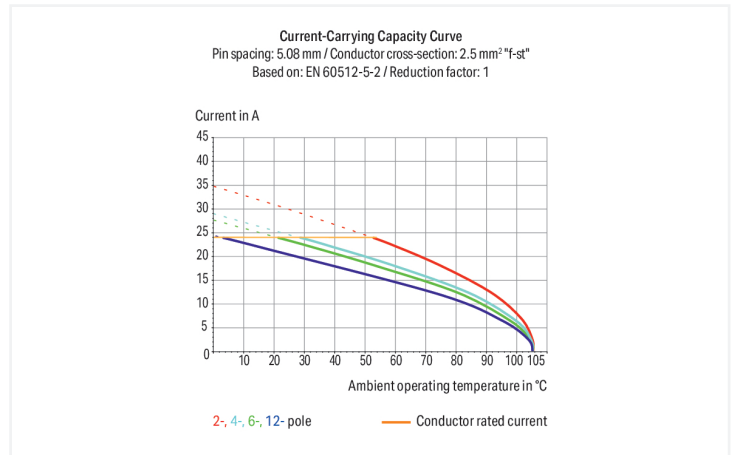
Quadruple-deck PCB terminal block; 2.5 mm²; Pin spacing 5.08 mm; 48-pole; CAGE CLAMP®; orange

<https://www.wago.com/738-412>



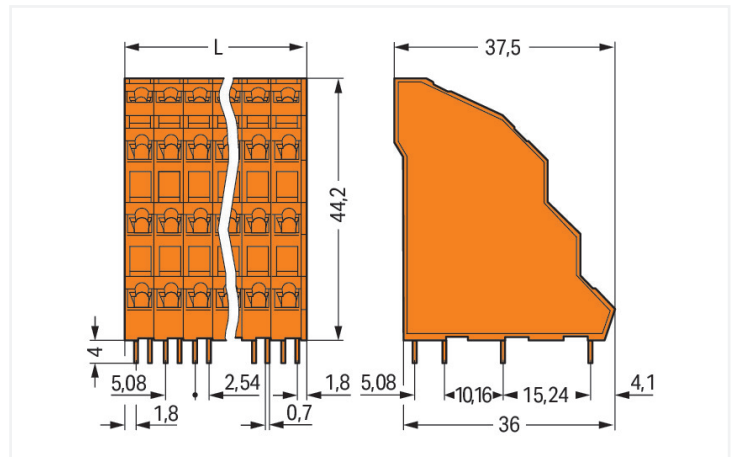
Color: ■ orange

Similar to illustration



Dimensions in mm

(1) Solder pins for deck 2 and 4 staggered by half the pin spacing



PCB terminal block, 738 Series, orange

This PCB terminal block (item number 738-412) streamlines wire connections, making them both quick and easy. You can rely on trusted safety with these PCB terminal blocks, perfect for a wide range of applications when designing your devices. Strip lengths must be between 5 and 6 mm when connecting conductors to this PCB terminal block. This product incorporates one conductor terminal and utilizes CAGE CLAMP®. Our CAGE CLAMP® connection offers a convenient and maintenance-free way to connect all types of conductors. You do not need to prepare the conductor in any way, such as crimping 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 suitable for conductor cross sections ranging from 0.08 mm² to 2.5 mm².

Tin is used for coating the contact surfaces. This PCB terminal block is operated with an operating tool. THT is used to assemble the PCB terminal block. The conductor is designed to be inserted at a 45° angle.

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/ .
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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 impulse withstand voltage	4 kV	4 kV	4 kV	Rated impulse withstand 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		
Use group	B	C	D
Rated voltage	300 V	-	300 V
Rated current	10 A	-	10 A

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

Connection Data

Clamping units	48
Total number of potentials	48
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 ² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 12 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
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 (staggered)
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	72.7 g

Environmental requirements

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

Product Group	4 (Printed Circuit Connectors)
PU (SPU)	12 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454159955
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 10.0	EC002643
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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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

General approvals

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 Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	24-0095975-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 738-412 ↓

Documentation

Additional Information			
Technical Section	03.04.2019	pdf 2027.26 KB	↓
Gebrückte Klemmenleisten für Leiterplatten		pdf 303.71 KB	↓

CAD/CAE-Data

CAD data
2D/3D Models 738-412 ↓

CAE data
EPLAN Data Portal 738-412 ↓
ZUKEN Portal 738-412 ↓

PCB Design

Symbol and Footprint via SamacSys 738-412 ↓
Symbol and Footprint via Ultra Librarian 738-412 ↓

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; insulated; 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



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

1.1.1.1 Ferrule



Item No.: 216-106
 Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; 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.