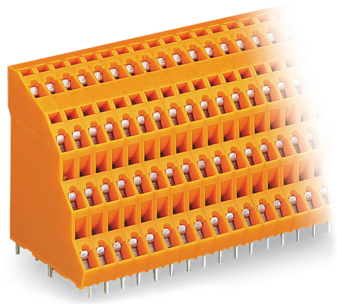
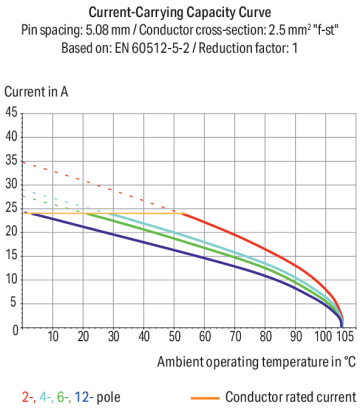
Data Sheet | Item Number: 738-416

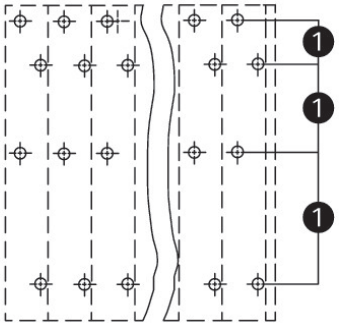
Quadruple-deck PCB terminal block; 2.5 mm²; Pin spacing 5.08 mm; 64-pole; CAGE CLAMP®; special version; orange

https://www.wago.com/738-416

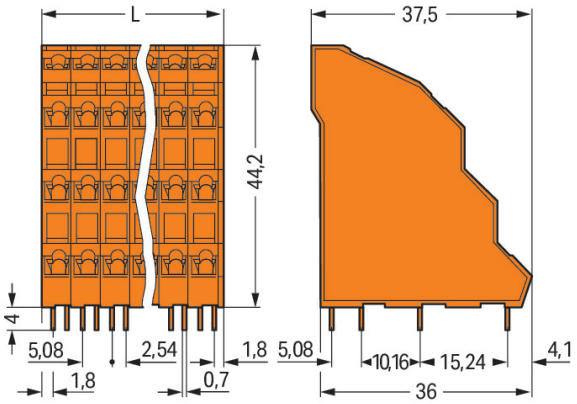




Color: orange



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



Dimensions in mm
L = ((pole no. / 4) x pin spacing) + 1 mm

PCB terminal block, 738 Series, with 5.08 mm pin spacing

Our PCB terminal block (item number 738-416) makes connections quick and easy. You can count on proven 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 reliable 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. Dimensions: (82.28 x 48.2 x 37.5) mm (width x height x depth). 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 solder the PCB terminal block. The conductor is designed to be inserted at a 45° angle..

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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 per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	250 V	320 V	630 V
Rated impulse withstand voltage	4 kV	4 kV	4 kV
Rated current	18 A	18 A	18 A

Ratings	between the decks		
Ratings per	IEC/EN 60664-1	IEC/EN 60664-1	IEC/EN 60664-1
Overvoltage category	III	III	II
Pollution degree	3	2	2
Nominal voltage	320 V	320 V	630 V
Rated impulse withstand voltage	4 kV	4 kV	4 kV
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	64
Total number of potentials	64
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 mm² / 28 … 12 AWG
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	64

Physical data

Pin spacing	5.08 mm / 0.2 inches
Width	82.28 mm / 3.239 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	1.3 $^{(+0.1)}$ mm

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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	1.182 MJ
Weight	96.6 g

Environmental requirements

Limit temperature range	-60 … +105 °C

Commercial data

Product Group	4 (Printed Circuit Connectors)
PU (SPU)	9 pcs
Packaging type	Box
Country of origin	PL
GTIN	4045454161774
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

Approvals / Certificates

General approvals

Approval	Standard	Certificate Name
CCA DEKRA Certification B.V.	EN 60947	NTR NL-7103
CCA DEKRA Certification B.V.	EN 60947-7-4	NTR NL 7817
CSA DEKRA Certification B.V.	C22.2 No. 158	1711139

General approvals

KEMA/KEUR DEKRA Certification B.V.	EN 60947-7-4	71-112779
KEMA/KEUR DEKRA Certification B.V.	EN 60947	2160584.20
UR Underwriters Laboratories Inc.	UL 1059	E45172

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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/E0 BV
DNV DNV GL SE	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 738-416

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 738-416

CAE data

EPLAN Data Portal 738-416

ZUKEN Portal 738-416

PCB Design

Symbol and Footprint via SamacSys 738-416

Symbol and Footprint via Ultra Librarian 738-416

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1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 Ferrule



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; silver-colored

Item No.: 216-322
Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise



Item No.: 216-152
Ferrule; Sleeve for 0.34 mm² / 22 AWG; uninsulated; electro-tin plated; silver-colored

Item No.: 216-221
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white



Item No.: 216-121
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored

Item No.: 216-222
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray



Item No.: 216-122
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; silver-colored

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



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



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



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

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

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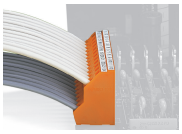
Installation Notes

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

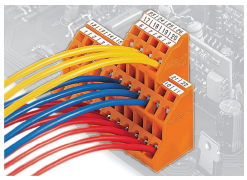


Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

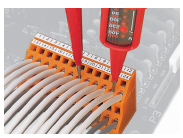


Possible combination:
Double- (737 Series) and quadruple-deck PCB terminal strips (738 Series) upon request

Marking



Testing



Testing via contact area above the conductors.

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