Printed-circuit board connector - IC 2,5/ 7-STF-5,08 - 1825365

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PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin



The figure shows a 10-position version of the product

Your advantages

- Well-known connection principle allows worldwide use
- Easy PCB replacement thanks to plug-in modules
- Screwable flange for superior mechanical stability
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Can be combined with the MSTB 2,5 range
- Low temperature rise, thanks to maximum contact force

Key Commercial Data

Packing unit	50 pc
Minimum order quantity	50 pc
GTIN	4 017918 049522
GTIN	4017918049522

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	CLASSIC COMBICON
Type of contact	Male connector
Range of articles	IC 2,5/..-STF
Pitch	5.08 mm
Number of positions	7
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)

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Technical data

Item properties

Screw thread	M3
Locking	Screw flange
Number of levels	1
Number of connections	7
Number of potentials	7

Electrical parameters

Nominal current	12 A
Nom. voltage	320 V
Rated voltage	250 V
Rated voltage (III/2)	320 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, solid	0.2 mm² ... 1 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 1 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1.5 mm²
Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

Flange specifications

Type of locking	Screw locking
Mounting flange	Screw flange
Torque	0.3 Nm

Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/ JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)

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Technical data

Material data - contact

Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface contact area (top layer)	Tin (5 - 7 µm Sn)
Metal surface contact area (middle layer)	Nickel (2 - 3 µm Ni),

Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

Dimensions for the product

Length [l]	19 mm
Width [w]	45.68 mm
Height [h]	15 mm
Pitch	5.08 mm
Height (without solder pin)	15 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	2.5 mm² / solid / > 50 N
	2.5 mm² / flexible / > 50 N

Mechanical tests according to standard

Test specification	IEC 61984

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Mechanical tests according to standard

Visual inspection	IEC 60512-1-1:2002-02
Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	7 N
Polarization and coding	IEC 60512-13-5:2006-02

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3.2 mm
Minimum creepage distance value (III/2)	1.6 mm
Minimum creepage distance value (II/2)	3.2 mm

Current carrying capacity / derating curves

Caption	Type: (U)MSTBVK 2,5/...-STF-5,08 with IC 2,5/...-STF-5,08
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	7 N
Polarization when inserted requirement >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R_1	2.9 mΩ
Insertion/withdrawal cycles	25
Contact resistance R_2	3 mΩ
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV
Insulation resistance, neighboring positions	2 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02

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Technical data

Thermal tests (C)

Number of positions	16
Conductor cross section	2.5 mm²
Test current	12 A DC
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Impulse withstand voltage at sea level	4.8 kV
Power-frequency withstand voltage	2.21 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

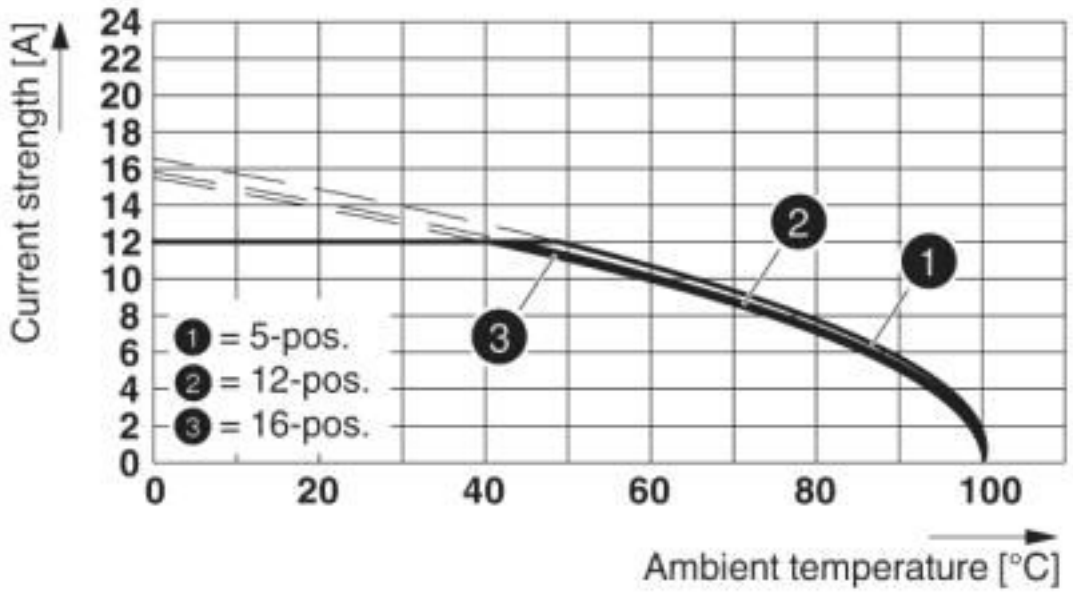
Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

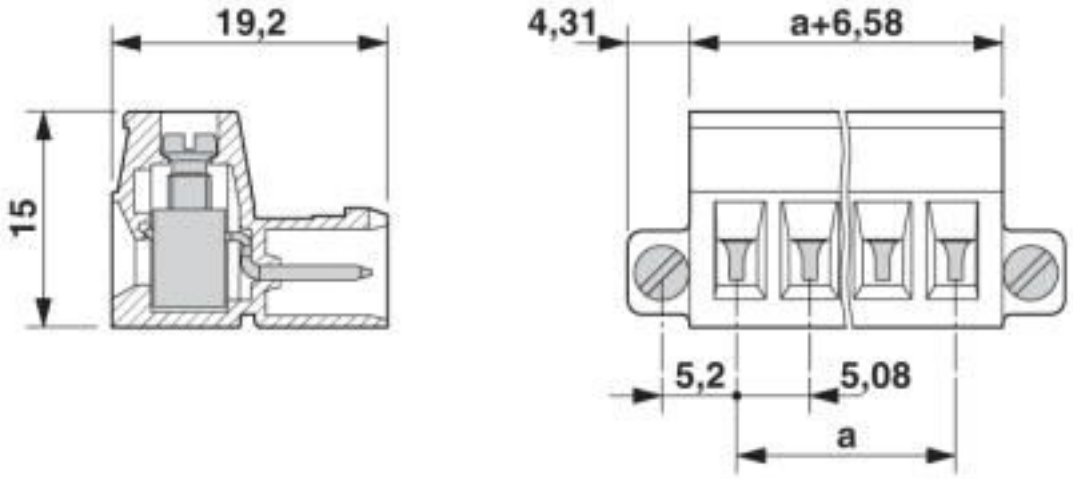
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Diagram



Type: (U)MSTBVK 2,5/...-STF-5,08 with IC 2,5/...-STF-5,08

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700

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Classifications

eCl@ss

eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals

Approvals

CSA / IECEE CB Scheme / EAC / cULus Recognized / VDE Zeichengenehmigung

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631

	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	10 A	10 A
mm²/AWG/kcmil	28-12	28-12

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Approvals

IECEE CB Scheme		http://www.iecee.org/	DE1-60988-B1B2

Nominal voltage UN	250 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.2-2.5

EAC		B.01687

cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19931014

	B	D
Nominal voltage UN	250 V	300 V
Nominal current IN	12 A	10 A
mm²/AWG/kcmil	30-12	30-12

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40050694

Nominal voltage UN	250 V
Nominal current IN	12 A
mm²/AWG/kcmil	0.2-2.5

Accessories

Accessories

Bridge

Insertion bridge - EBP 2- 5 - 1733169



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Cable housing

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Accessories

Cable housing - KGG-MSTB 2,5/ 7 - 1803918



Cable housing, pitch: 0 mm, number of positions: 7, color: green

Coding element

Coding section - CR-MSTB - 1734401



Coding section, inserted into the recess in the header or the inverted plug, red insulating material

Filler plug

Accessories - MSTB-BL - 1755477



Keying cap, for forming sections, plugs onto header pin, green insulating material

Labeled terminal marker

Marker card - SK 5,08/3,8:FORTL.ZAHLEN - 0804293



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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Accessories

Additional products

Feed-through header - ICV 2,5/ 7-GF-5,08 - 1825747



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

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Feed-through terminal block - ZFKK 1,5-ICV-5,08 - 1873029



Feed-through terminal block, connection method: Special and hybrid connection, cross section: 0.2 mm² - 2.5 mm², AWG: 24 - 16, width: 5.1 mm, color: gray, mounting: NS 35/15, NS 35/7,5

Feed-through header - IC 2,5/ 7-GF-5,08 - 1825174



PCB headers, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, color: green, contact surface: Tin, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 3.5 mm

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Printed-circuit board connector - MSTBVK 2,5/ 7-STF-5,08 - 1849134



DIN rail connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin, mounting: DIN rail

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Feed-through header - A-ICV 2,5/ 7-GF-5,08 - 1872855



Feed-through header, nominal current: 12 A, nom. voltage: 250 V, mounting type: DIN rail mounting, number of positions: 7, pitch: 5.08 mm, color: green

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Accessories

Printed-circuit board connector - UMSTBVK 2,5/ 7-STF-5,08 - 1859221



DIN rail connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Tin, mounting: DIN rail

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Printed-circuit board connector - MSTBC 2,5/ 7-STZFD-5,08 - 1809323



PCB connector, nominal current: 12 A, rated voltage (III/2): 320 V, nominal cross section: 2.5 mm², number of positions: 7, pitch: 5.08 mm, connection method: Crimp connection, color: green, mounting: Direct mounting, Corresponding female crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/MSTBC-MT 0,5-1,0 (3190564); 10A/MSTBC-MT 0,5-1,0 BA (3190645); 12A/MSTBC-MT 1,5-2,5 (3190551); 12A/MSTBC-MT 1,5-2,5 BA (3190658). BA = Bandkontakte

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