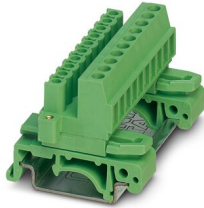


Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08

1859218

<https://www.phoenixcontact.com/de/produkte/1859218>

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DIN rail connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Female connector, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: UMSTBVK 2,5/...-STF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: 0 °, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

Your advantages

- Direct plug-in block with universal foot for mounting on NS 32 or NS 35 DIN rail
- Can be combined with the MSTB 2,5 range
- Screwable flange for superior mechanical stability
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Well-known connection principle allows worldwide use

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Commercial Data

Item number	1859218
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	E1 - Leiterplattenanschl.
Product Key	AACMGD
Catalog Page	Page 363 (C-1-2013)
GTIN	4017918106270
Weight per Piece (including packing)	23,02 g
Weight per Piece (excluding packing)	22,863 g
Customs tariff number	85366990
Country of origin	DE

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Technical Data

Product properties

Type	DIN rail mounting
Product line	COMBICON Connectors M
Product type	DIN rail connector
Number of positions	6
Pitch	5.08 mm
Number of connections	6
Number of rows	1
Mounting flange	Screw flange
Number of potentials	6

Electrical properties

Nominal current I_N	12 A
Nominal voltage U_N	320 V
Pollution degree	3
Contact resistance	2.9 mΩ
Rated voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV

Connection data

Connection technology

Type	DIN rail mounting
Connector system	COMBICON MSTB 2,5
Nominal cross section	2.5 mm ²
Type of contact	Female connector

Interlock

Locking type	Screw locking
Mounting flange	Screw flange
Torque	0.3 Nm

Conductor connection

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 2.5 mm ²

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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2 conductors with same cross section, solid	0.2 mm ² ... 1 mm ²
2 conductors with same cross section, flexible	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Stripping length	7 mm
Torque	0.5 Nm ... 0.6 Nm

Mounting

Mounting type DIN rail	DIN rail
Mounting type	DIN rail

Flange

Tightening torque	0.3 Nm
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Material specifications

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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

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

Notes

Notes on operation	In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load.
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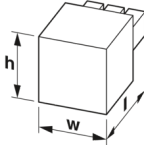
Dimensions

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Dimensional drawing	
Pitch	5.08 mm
Width [w]	40.6 mm
Height [h]	34.9 mm
Length [l]	42.5 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	2.5 mm ² / solid / > 50 N
	2.5 mm ² / flexible / > 50 N

Insertion and withdrawal forces

Result	Test passed
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	7 N

Torque test

Specification	IEC 60999-1:1999-11
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Resistance of inscriptions

Specification	IEC 60068-2-70:1995-12
Result	Test passed

Polarization and coding

Specification	IEC 60512-13-5:2006-02
Result	Test passed

Visual inspection

Specification	IEC 60512-1-1:2002-02
Result	Test passed

Dimension check

Specification	IEC 60512-1-2:2002-02
Result	Test passed

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Electrical tests

Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	16

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	320 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	4 mm
Note on connection cross section	With connected conductor 4 mm ² (solid).
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	1.6 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Sweep speed	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	4.8 kV
Contact resistance R ₁	2.9 mΩ
Contact resistance R ₂	3 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	2.21 kV

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard
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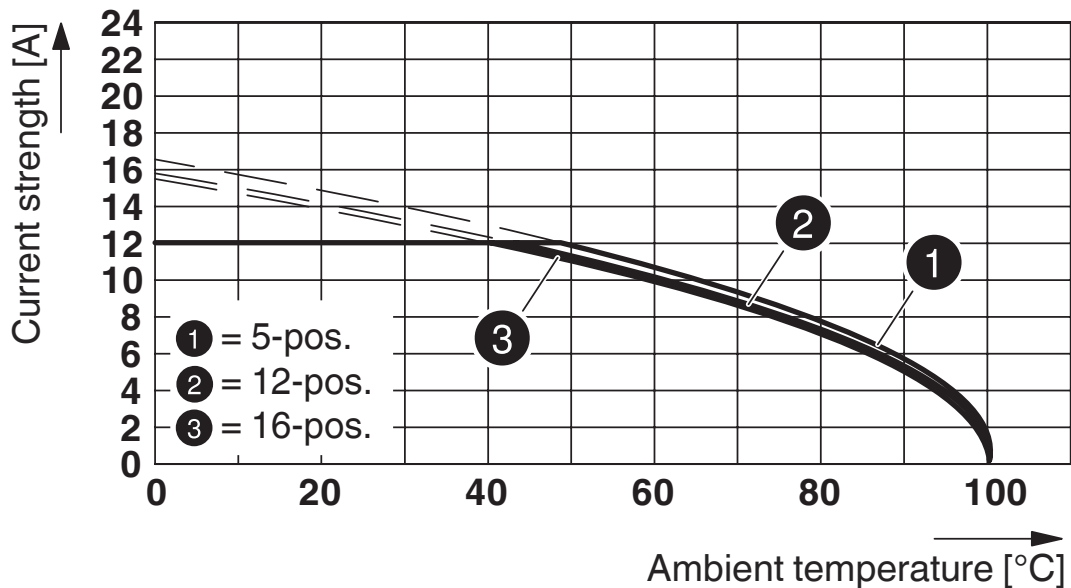
Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08

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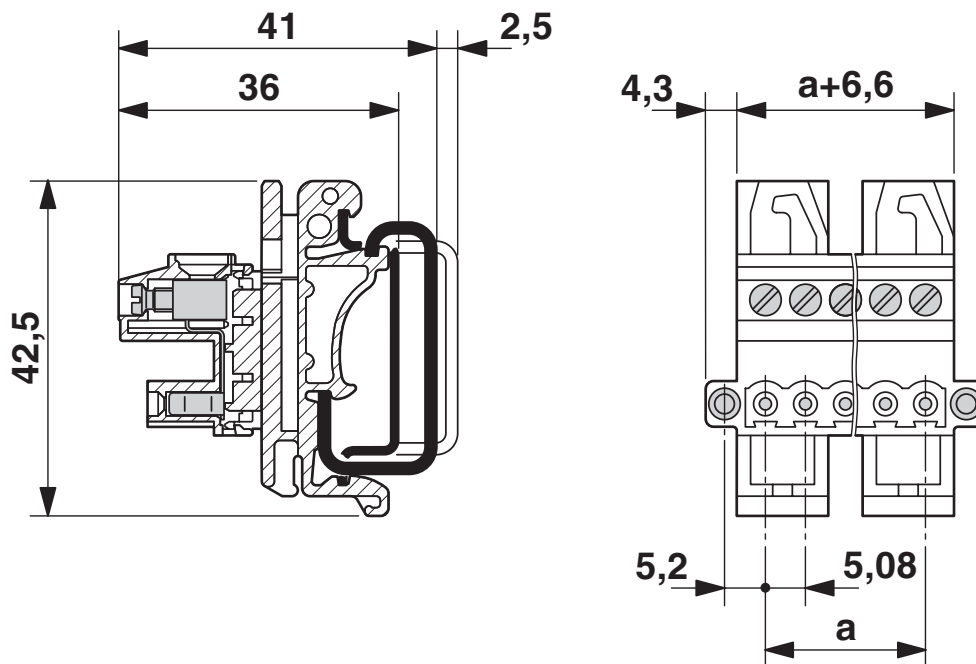
Drawings

Diagram



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

Dimensional drawing



Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08





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Approvals

 IECEE CB Scheme Approval ID: DE1-60988-B1B2				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	12 A	-	0.2 - 2.5

 EAC Approval ID: B.01687				
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 cULus Recognized Approval ID: E60425-19931014				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B	250 V	12 A	30 - 12	-
Use group D	300 V	10 A	30 - 12	-

 VDE Zeichengenehmigung Approval ID: 40050694				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	250 V	12 A	-	0.2 - 2.5

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Classifications

ECLASS

ECLASS-9.0	27141106
ECLASS-10.0.1	27141106
ECLASS-11.0	27141106

ETIM

ETIM 8.0	EC001284
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UNSPSC

UNSPSC 21.0	39121400
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Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



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Accessories

Marker card

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

<https://www.phoenixcontact.com/de/produkte/0804293>



Marker 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

Coding profile

Coding profile - CP-MSTB - 1734634

<https://www.phoenixcontact.com/de/produkte/1734634>

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material



Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08

1859218

<https://www.phoenixcontact.com/de/produkte/1859218>

Screwdriver

Screwdriver - SZS 0,6X3,5 - 1205053

<https://www.phoenixcontact.com/de/produkte/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

Insertion bridge

Insertion bridge - EBP 2- 5 - 1733169

<https://www.phoenixcontact.com/de/produkte/1733169>



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08

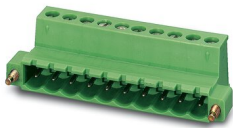
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PCB connector

PCB connector - IC 2,5/ 6-STF-5,08 - 1825352

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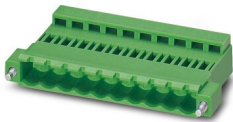


PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: IC 2,5/...-STF, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

PCB connector

PCB connector - ICC 2,5/ 6-STZF-5,08 - 1823422

<https://www.phoenixcontact.com/de/produkte/1823422>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, type of contact: Male connector, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: ICC 2,5/...-STZF, pitch: 5.08 mm, connection method: Crimp connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard, Corresponding male crimp contacts with current [A] and conductor cross section range [mm²] data: 10A/ICC-MT 0,5-1,0 (3190577); 10A/ICC-MT 0,5-1,0 BA (3190603); 12A/ICC-MT 1,5-2,5 (3190580); 12A/ICC-MT 1,5-2,5 BA (3190593). BA = Bandkontakte

Printed-circuit board connector - UMSTBVK 2,5/ 6-STF-5,08



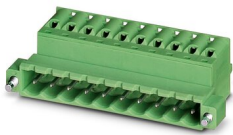
1859218

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PCB connector

PCB connector - FKIC 2,5/ 6-STF-5,08 - 1873540

<https://www.phoenixcontact.com/de/produkte/1873540>



PCB connector, nominal cross section: 2.5 mm², color: green, nominal current: 12 A, rated voltage (III/2): 320 V, contact surface: Tin, type of contact: Male connector, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: FKIC 2,5/..-STF, pitch: 5.08 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON MSTB 2,5, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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