

Item No.: 1757116

Type: MSTB 2,5/12-ST-5,08

PCB connector, Screw connection with tension sleeve



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|--------------------------------------|------------------------|---------------------|
| • No. of pos. | 12 | • Nominal current | 12 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 320 V |
| • Color | green (6021) | • Connection direction | 0 ° |
| • Pitch | 5.08 mm | • Type of packaging | packed in cardboard |
| • Connection method | Screw connection with tension sleeve | | |

2 Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors



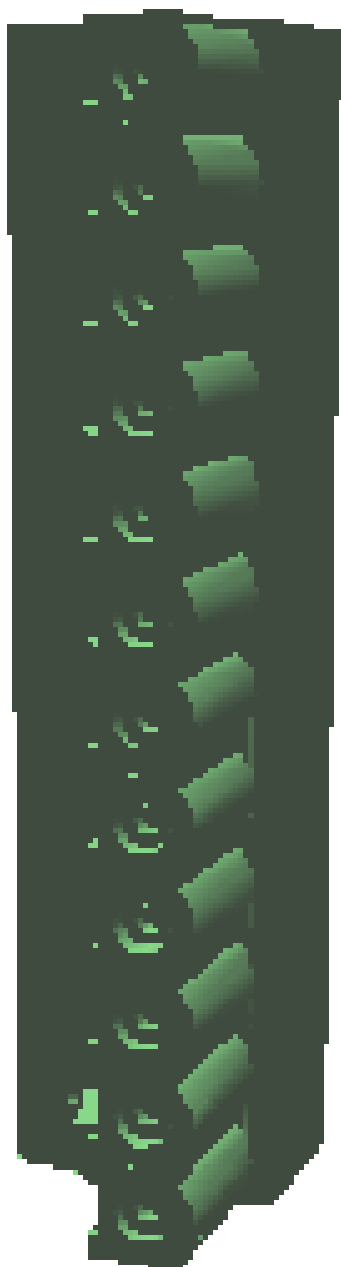
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It can be downloaded at: phoenixcontact.net/product/1757116

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1757116 MSTB 2,5/12-ST-5,08

4 3D model in PDF can be activated (Acrobat Reader only)



1757116 MSTB 2,5/12-ST-5,08**5 General Technical Data****5.1 item properties**

Item no.	1757116
Type	MSTB 2,5/12-ST-5,08
Product line	COMBICON Connectors M
Connector system	CLASSIC COMBICON
Product type	PCB connector
Type of contact	Female connector
Range of articles	MSTB 2,5/..-ST
Pitch	5.08 mm
Number of positions	12
Number of rows	1
Number of connections	12
Number of potentials	12
Connection method	Screw connection with tension sleeve
Screw thread	M3
Drive form screw head	Slotted (L)
Connection direction of the conductor to plug-in direction	0 °
Type	Standard

1757116 MSTB 2,5/12-ST-5,08**6 Mounting****6.1 Flange mounting**

Type of locking	without
Mounting flange	without

1757116 MSTB 2,5/12-ST-5,08**7 Conductor connection****7.1 Connection capacity**

Nominal cross section	2.5 mm ²
Conductor cross section, rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² ... 2.5 mm ²
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
2 conductors with same cross section, solid	0.2 mm ² ... 1 mm ²
2 conductors with same cross section, stranded	0.2 mm ² ... 1.5 mm ²
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.25 mm ² ... 1 mm ²
2 conductors with the same cross section flexible with TWIN ferrule and plastic sleeve	0.5 mm ² ... 1.5 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm
Tightening torque	0.5 Nm ... 0.6 Nm

7.2 Connection capacity AWG

Conductor cross section AWG	24 ... 12
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1757116 MSTB 2,5/12-ST-5,08**8 Material properties****8.1 Material of metal parts**

Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Terminal point surface	Tin (5 - 7 µm Sn)
Surface contact area	Tin (5 - 7 µm Sn)
Surface characteristics	hot-dip tin-plated

8.2 Material of plastic parts

	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

1757116 MSTB 2,5/12-ST-5,08**9 Dimensions****9.1 Dimensions for the product**

Length	18.3 mm
Width	60.96 mm
Installed height	15 mm
Total height	15 mm

10 Series drawing

1757116 MSTB 2,5/12-ST-5,08

11 Product notes

11.1 General information

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.

12 Packaging information

Type of packaging

packed in cardboard

Pieces per package

50

13 Application

13.1 Temperature limit values

Ambient temperature (storage/transport)

-40 °C ... 70 °C

Relative humidity (storage/transport)

30 % ... 70 %

Ambient temperature (assembly)

-5 °C ... 100 °C

Ambient temperature (operation)

-40 °C ... 100 °C (dependent on the derating curve)

1757116 MSTB 2,5/12-ST-5,08**14 General tests****14.1 Specification**

Specification	IEC 61984
Specification	IEC 60999-1
Brief description	Printed-circuit board connector

15 Mechanical tests**15.1 Check for damage to conductor or loosening**

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

15.2 Pull-out test

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

15.3 Torque test

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

15.4 Visual examination

Specification	IEC 61984:2008-10
Visual examination	Test passed
Specification	IEC 60512-1-1:2002-02

15.5 Dimensional test

Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02

15.6 Resistance of marking

Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12

15.7 Polarization and coding

1757116 MSTB 2,5/12-ST-5,08

Polarization when inserted
Requirement >20 N

Test passed

Specification

IEC 60512-13-5:2006-02

1757116 MSTB 2,5/12-ST-5,08**16 Insertion and withdrawal forces**

Insertion and withdrawal force	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	8 N
Withdraw strength per pos. approx.	6 N

1757116 MSTB 2,5/12-ST-5,08**17 Electrical tests**

Rated current / conductor cross section	12 A / 2.5 mm ²
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Contact resistance	1.3 mΩ
Degree of pollution	2

1757116 MSTB 2,5/12-ST-5,08**18 Air and creepage distances**

Component	PCB connector		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	250 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	3 mm	3 mm	3 mm
Minimum value of the creepage path requirement in acc. with table	3.2 mm	3 mm	3.2 mm

1757116 MSTB 2,5/12-ST-5,08

19 Current carrying capacity/derating curves

Specification

IEC 61984:2008-10

Note

Representation based on IEC 60512-5-2:2002-02

Note

For number of positions, see diagram

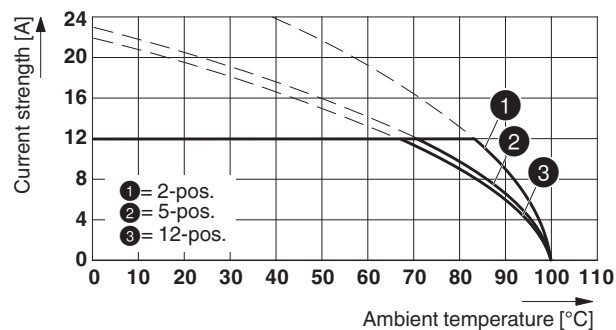
Reduction factor

0.8

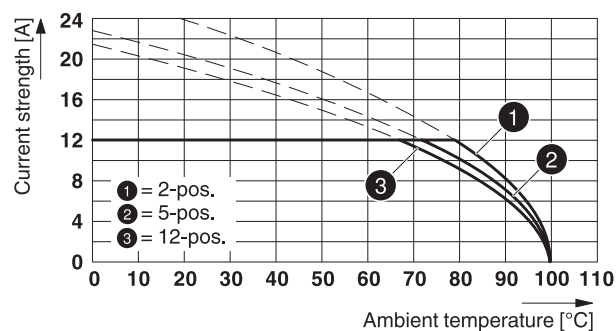
Conductor cross section

2.5 mm²

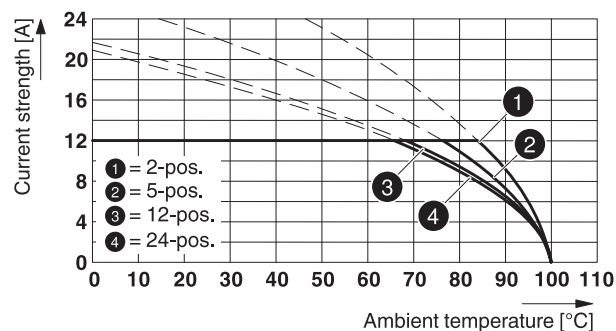
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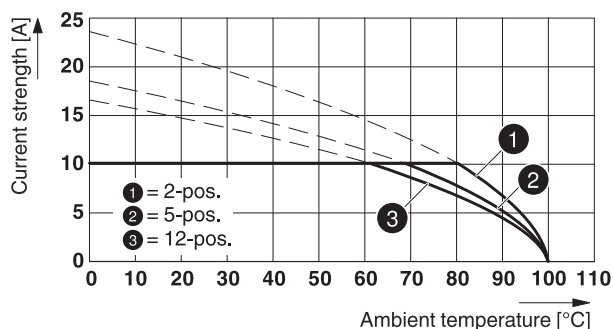
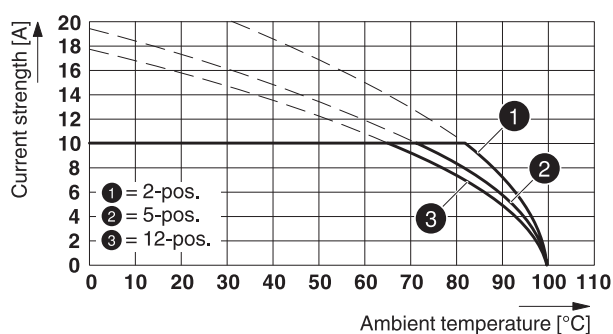
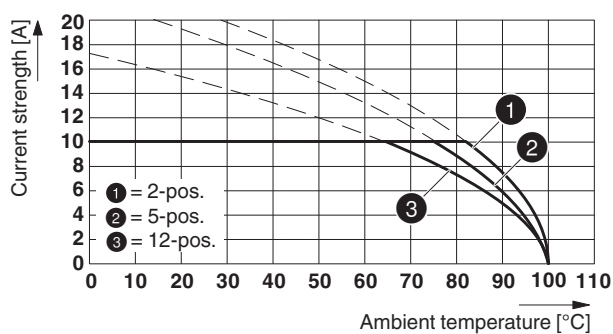
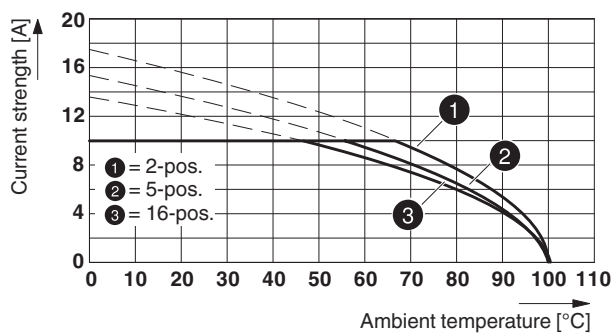


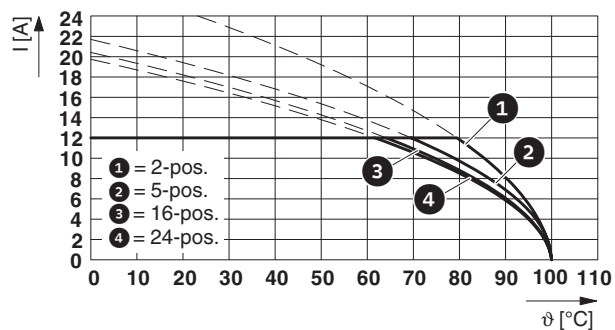
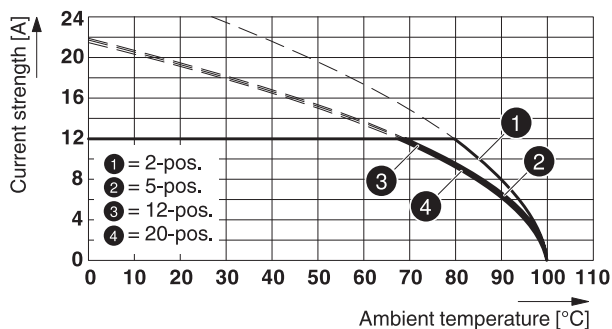
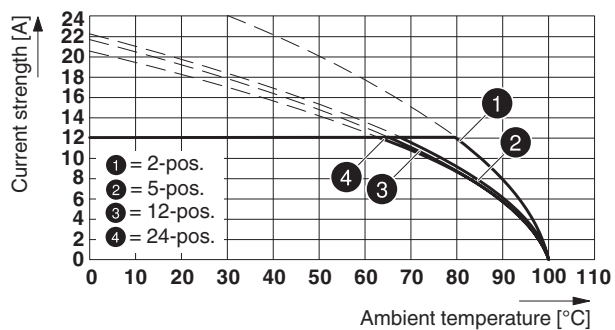
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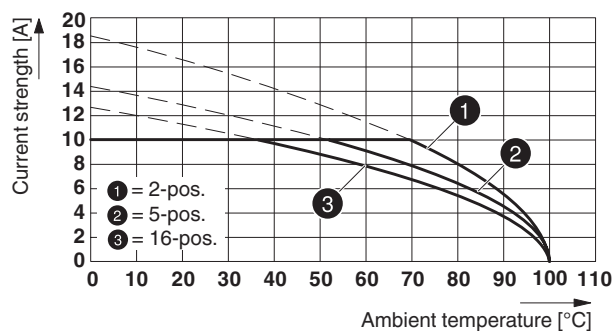
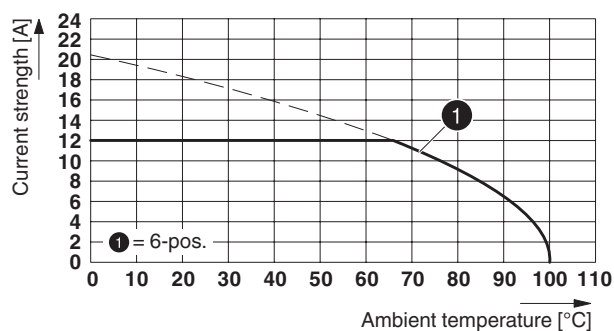
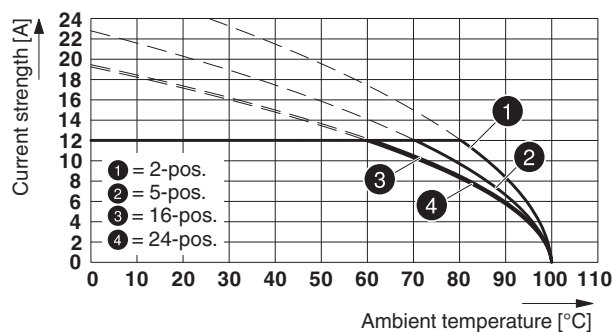


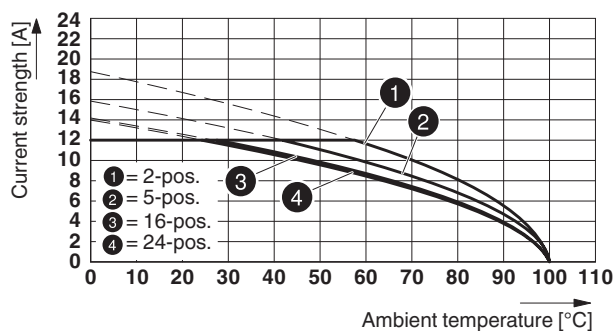
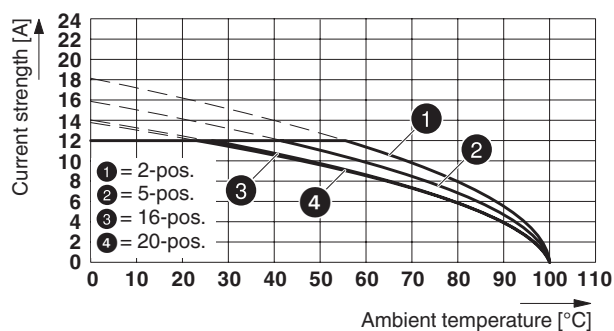
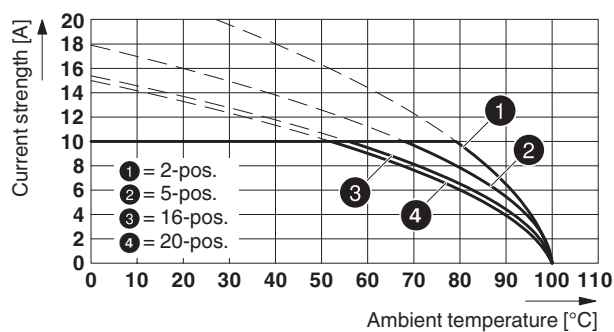
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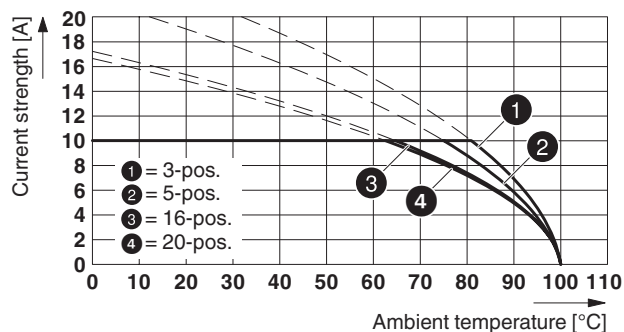
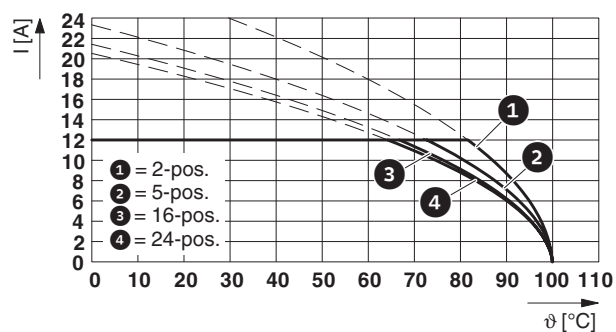
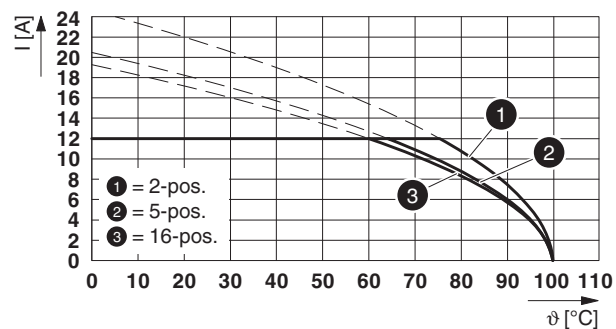


1757116 MSTB 2,5/12-ST-5,08**Type: MSTB 2,5/...-ST-5,08 with MDSTB 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MDSTBA 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MDSTBW 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MDSTBV 2,5/...-G-5,08**

1757116 MSTB 2,5/12-ST-5,08**Type: MSTB 2,5/...-ST-5,08 with SMSTB 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MVSTBU 2,5/...-GB-5,08****Type: MSTB 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08**

1757116 MSTB 2,5/12-ST-5,08**Type: MSTB 2,5/...-ST-5,08 with MDSTBVA 2,5/...-G-5,08****Type: MSTB 2,5/...-ST(-5,08) with EMSTBVA 2,5/...-G(-5,08)****Type: MSTB 2,5/...-ST-5,08 with MSTBW 2,5/...-G-5,08**

1757116 MSTB 2,5/12-ST-5,08**Type: MSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MSTBV 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with MDSTB 2,5/...-G1-5,08**

1757116 MSTB 2,5/12-ST-5,08**Type: MSTB 2,5/...-ST-5,08 with MDSTBV 2,5/...-G1-5,08****Type: MSTB 2,5/...-ST-5,08 with SMSTBA 2,5/...-G-5,08****Type: MSTB 2,5/...-ST-5,08 with DFK-MSTBA 2,5/...-G-5,08**

1757116 MSTB 2,5/12-ST-5,08**20 Environmental and durability tests****20.1 Vibration test**

Specification	IEC 60068-2-6:2007-12
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	The connected conductor loops were guided to the test sample at a distance of approx. 10 cm.

20.2 Insulation resistance

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

1757116 MSTB 2,5/12-ST-5,08**21 Type approval and special tests****22 Classification for connectors**

Specification	IEC 61984:2008-10
Main features	Connectors without switching capacity (COC)
Construction form	Fixed connectors
Strain relief elements	without strain relief
Connection method	Can be reconnected
Protection against electric shock	Not encapsulated - touch-proof when inserted
Protective conductor	without PE
Locking	no
Connection method	Screw terminal points

1757116 MSTB 2,5/12-ST-5,08

23 Approvals / Certificates

CSA 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
Usegroup B				
	300 V	15 A	28 - 12	-
Usegroup D				
	300 V	10 A	28 - 12	-
IECEE CB Scheme 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	250 V	12 A	-	0.2 - 2.5
EAC 				
cULus Recognized 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
Usegroup B				
	300 V	15 A	30 - 12	-
Usegroup D				
	300 V	10 A	30 - 12	-
VDE Zeichengenehmigung 	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm ²]
	250 V	12 A	-	0.2 - 2.5

1757116 MSTB 2,5/12-ST-5,08**24 Commercial Data**

Item no.	1757116
Type	MSTB 2,5/12-ST-5,08
Pieces per package	50
Net weight	20 g
GTIN	4017918029647
	Information that applies locally, see link on page 1

25 corresponding headers

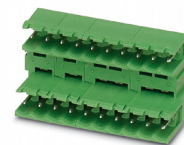
Item no.	Type
1735785	MSTBW 2,5/12-G-5,08
1755833	MSTBVA 2,5/12-G-5,08
1955950	CCVA 2,5/12-G-5,08 P26THR
1956069	CCVA 2,5/12-G-5,08 P26THRR88

26 Accessories

Description	Item No.	Type
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	1205053	SZS 0,6X3,5
	0804293	SK 5,08/3,8:FORTL.ZAHLEN
	1783818	KGS-MSTB 2,5/12
Coding profile, is inserted into the slot on the plug or inverted header, red insulating material	1734634	CP-MSTB
	0803883	SK U/2,8 WH:UNBEDRUCKT

1757116 MSTB 2,5/12-ST-5,08

27 Combination tests

**MSTB 2,5/12-ST**

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R_1 1st levelContact resistance R_1 2nd level

Insertion/withdrawal cycles

Contact resistance R_2 Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ Insulation resistance
Requirements > 5 M Ω **Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$ Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$ **Environmental and endurance tests (E)**

Specification

Degree of protection

CC 2,5/12-G

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 m Ω

25

1.4 m Ω

4.8 kV

2.21 kV

> 5 M Ω

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**CCV 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.2 m Ω

25

1.2 m Ω

4.8 kV

2.21 kV

> 5 M Ω

12

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**CCVA 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 m Ω

25

1.4 m Ω

4.8 kV

2.21 kV

> 5 M Ω

24

2.5 mm²

12 A DC

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MDSTB 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 m Ω 1.6 m Ω

25

1.3 m Ω

4.8 kV

2.21 kV

> 5 M Ω

12

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

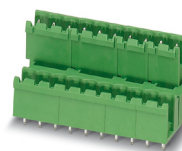
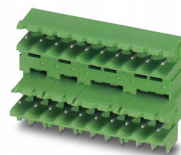
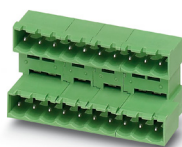
0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger

1757116 MSTB 2,5/12-ST-5,08**MSTB 2,5/12-ST**

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R₁ 1st levelContact resistance R₁ 2nd level

Insertion/withdrawal cycles

Contact resistance R₂Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)Insulation resistance
Requirements > 5 MΩ**Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)**Environmental and endurance tests (E)**

Specification

Degree of protection

MDSTBA 2,5/12-G

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 mΩ

1.6 mΩ

25

1.3 mΩ

4.8 kV

2.21 kV

> 5 MΩ

12

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MDSTBW 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 mΩ

1.6 mΩ

25

1.3 mΩ

4.8 kV

2.21 kV

> 5 MΩ

12

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MDSTBV 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

2.6 mΩ

1.6 mΩ

25

2.6 mΩ

4.8 kV

2.21 kV

> 5 MΩ

12

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**SMSTB 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 mΩ

25

1.3 mΩ

4.8 kV

2.21 kV

> 5 MΩ

24

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

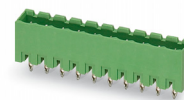
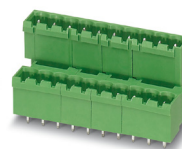
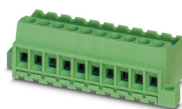
4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger

1757116 MSTB 2,5/12-ST-5,08

**MSTB 2,5/12-ST**

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R₁ 1st levelContact resistance R₁ 2nd level

Insertion/withdrawal cycles

Contact resistance R₂Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)Insulation resistance
Requirements > 5 MΩ**Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)**Environmental and endurance tests (E)**

Specification

Degree of protection

MVSTBU 2,5/12-GB

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.9 mΩ

25

2.2 mΩ

4.8 kV

2.21 kV

> 5 MΩ

20

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MSTB 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.4 mΩ

25

1.4 mΩ

4.8 kV

2.21 kV

> 5 MΩ

24

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MDSTBVA 2,5/12-G**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

2.5 mΩ

1.5 mΩ

25

2.5 mΩ

4.8 kV

2.21 kV

> 5 MΩ

16

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**EMSTBVA 2,5/12-G**

DIN VDE 0627 (in parts)

approx. 5 N / 4 N

1.1 mΩ

25

1.5 mΩ

4.8 kV

2.21 kV

10¹² Ω

6

2.5 mm²

12 A

-40 °C/2 h

100 °C/168 h

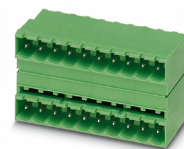
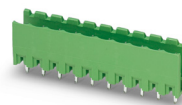
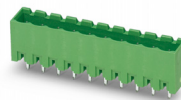
0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger

1757116 MSTB 2,5/12-ST-5,08**MSTB 2,5/12-ST**

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

Polarization when inserted
Requirement >20 NContact holder in insert
Requirements >20 N**Durability tests (B)**Contact resistance R₁ 1st levelContact resistance R₁ 2nd level

Insertion/withdrawal cycles

Contact resistance R₂Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)Insulation resistance
Requirements > 5 MΩ**Thermal tests (C)**

Tested number of positions

Tested conductor cross section

Test current

Upper limiting temperature
Requirements < 100°C**Climatic tests (D)**

Test sequence 1: low temperature storage

Test sequence 2: heat storage

Test sequence 3: noxious gas storage
(ISO 6988)Rated impulse voltage at sea level
Voltage waveform ≥ (1.2/50 μs)Power-frequency withstand voltage
Voltage waveform ≥ (50/60 Hz)**Environmental and endurance tests (E)**

Specification

Degree of protection

MSTBW 2,5/12-ST

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.3 mΩ

25

1.3 mΩ

4.8 kV

2.21 kV

> 5 MΩ

20

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MSTBVA 2,5/12-ST**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

2.4 mΩ

25

2.5 mΩ

4.8 kV

2.21 kV

> 5 MΩ

24

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MSTBV 2,5/12-ST**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

2.4 mΩ

25

2.4 mΩ

4.8 kV

2.21 kV

> 5 MΩ

20

2.5 mm²

12 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger**MDSTB 2,5/12-ST**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

1.2 mΩ

2 mΩ

25

1.2 mΩ

4.8 kV

2.21 kV

> 5 MΩ

20

2.5 mm²

10 A

Test passed

-40 °C/2 h

100 °C/168 h

0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle

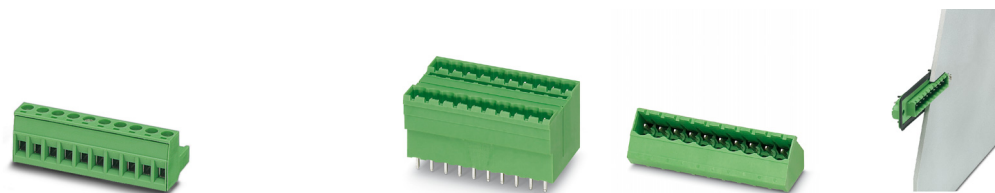
4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20
test finger

1757116 MSTB 2,5/12-ST-5,08

**MSTB 2,5/..-ST****MDSTBV 2,5/..-G1****SMSTBA 2,5/..-G****DFK-MSTBA 2,5/
..-G**

IEC 61984

IEC 61984

IEC 61984

IEC 61984

Mechanical tests (A)

Insertion/withdrawal force per position

approx. 8 N / 6 N

approx. 8 N / 6 N

approx. 8 N / 6 N

Polarization when inserted
Requirement >20 N

Test passed

Test passed

Test passed

Contact holder in insert
Requirements >20 N

Test passed

Test passed

Test passed

Durability tests (B)Contact resistance R_1 1st level

1.4 mΩ

1.3 mΩ

1.4 mΩ

Contact resistance R_1 2nd level

1.4 mΩ

Insertion/withdrawal cycles

25

25

25

Contact resistance R_2

1.4 mΩ

1.3 mΩ

1.4 mΩ

Rated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$

4.8 kV

4.8 kV

4.8 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

2.21 kV

2.21 kV

2.21 kV

Insulation resistance
Requirements > 5 MΩ

> 5 MΩ

> 5 MΩ

> 5 MΩ

Thermal tests (C)

Tested number of positions

20

24

16

Tested conductor cross section

2.5 mm²2.5 mm²2.5 mm²

Test current

10 A

12 A

12 A

Upper limiting temperature
Requirements < 100°C

Test passed

Test passed

Test passed

Climatic tests (D)

Test sequence 1: low temperature storage

-40 °C/2 h

-40 °C/2 h

-40 °C/2 h

Test sequence 2: heat storage

100 °C/168 h

100 °C/168 h

100 °C/168 h

Test sequence 3: noxious gas storage
(ISO 6988)0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycle0.2 dm³ SO₂ on 300 dm³/
40 °C/1 cycleRated impulse voltage at sea level
Voltage waveform $\geq (1.2/50 \mu s)$

4.8 kV

4.8 kV

4.8 kV

Power-frequency withstand voltage
Voltage waveform $\geq (50/60 \text{ Hz})$

2.21 kV

2.21 kV

2.21 kV

Environmental and endurance tests (E)

Specification

IEC 61984:2008-10

IEC 61984:2008-10

IEC 61984:2008-10

Degree of protection

Finger safety with IP20
test fingerFinger safety with IP20
test fingerFinger safety with IP20
test finger