

Order No.: 1757080

Type: MSTB 2,5/ 9-ST-5,08

Plug component, Screw connection with tension sleeve



The figure shows a 10-position version of the product

## 1 Main features



- |                           |                                      |                        |                     |
|---------------------------|--------------------------------------|------------------------|---------------------|
| • No. of pos.             | 9                                    | • Nominal current      | 12 A                |
| • Conductor cross section | 2.5 mm <sup>2</sup>                  | • Nominal voltage      | 320 V               |
| • Color                   | green                                | • 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



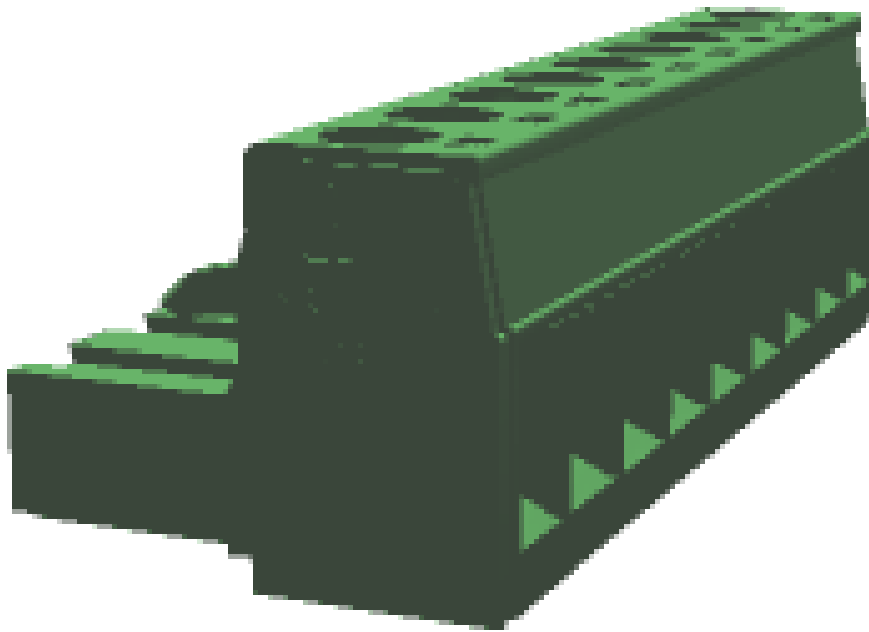
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1757080 MSTB 2,5/ 9-ST-5,08

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



**1757080 MSTB 2,5/ 9-ST-5,08****5 item properties**

Order No.	1757080
Type	MSTB 2,5/ 9-ST-5,08
Type of contact	Female connector
Range of articles	MSTB 2,5/...ST
Pitch	5.08 mm
Number of positions	9
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Locking	without

**5.1 Connection capacity**

Conductor cross section, solid	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil	24 to 12
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> to 1 mm <sup>2</sup>
2 conductors with same cross section, stranded	0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> to 1 mm <sup>2</sup>
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.4 mm / 2.5 mm
Stripping length	7 mm

**5.2 Material data**

<b>Material of metal parts</b>	
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Terminal point surface	Sn 5 µm ... 7 µm
Surface contact area	Sn 5 µm ... 7 µm
Surface characteristics	hot-dip tin-plated
<b>Insulating material data</b>	
Insulating material	PA
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	green (6021)
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

**6 Dimensions**

**1757080 MSTB 2,5/ 9-ST-5,08**

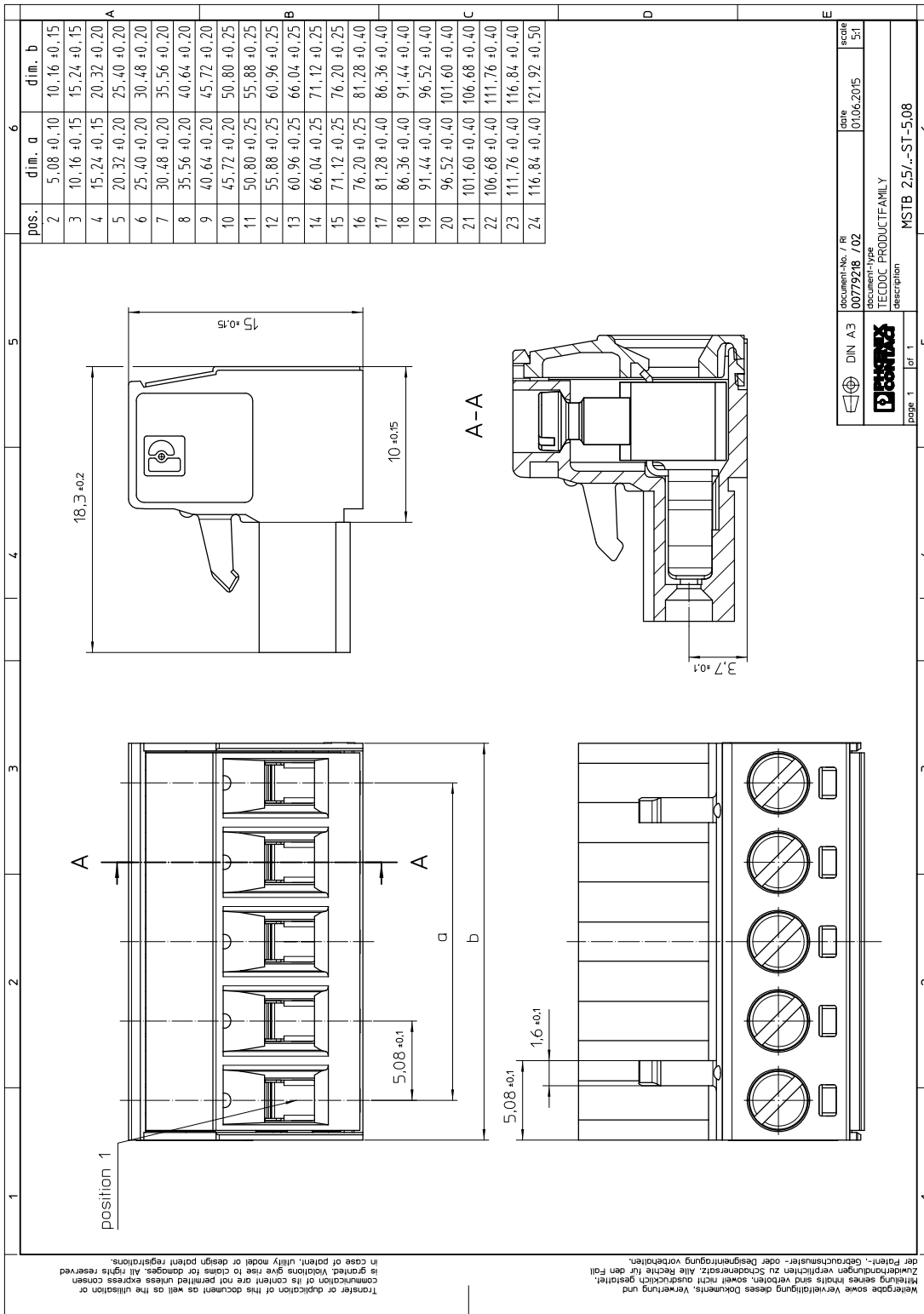
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**6.1 Dimensions for the product**

Length	18.3 mm
Width	45.72 mm
Total height	15 mm
Dimension a	40.64 mm

1757080 MSTB 2,5/ 9-ST-5,08

7 Series drawing



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description	MSTB 2,5/...ST-5,08				

page 1 of 1  
 MSTB 2,5/...ST-5,08

**1757080 MSTB 2,5/ 9-ST-5,08****8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

**9 Application****9.1 Temperature limit values**

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

**1757080 MSTB 2,5/ 9-ST-5,08****10 Mechanical tests**

Mechanical test group A	
Specification	IEC 61984:2008-10
Visual test	Test passed
Specification	IEC 60512-1-1:2002-02
Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02
Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12
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
Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N
Contact retention in insert	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	27 N

**10.1 Termination and connection method**

Specification	IEC 60999-1:1999-11
Check for damage to conductor or loosening	Test passed

**10.2 Pull-out test**

Termination and connection method: pull-out test	
Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / stranded / > 10 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm <sup>2</sup> / solid / > 50 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm <sup>2</sup> / stranded / > 50 N
Conductor cross section/conductor type/tractive force actual value	AWG 12 / stranded / > 60 N



**1757080 MSTB 2,5/ 9-ST-5,08****11 Electrical tests****11.1 Electrical data**

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

**11.2 Air and creepage distances**

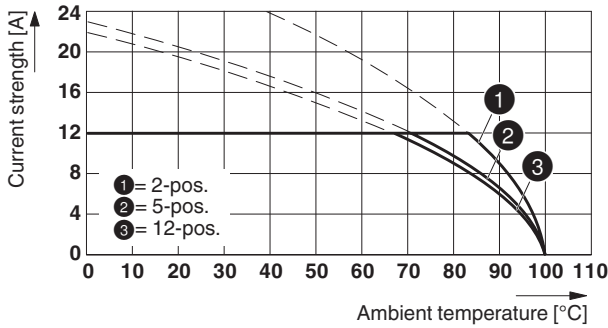
Component	Plug component		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	250 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	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

1757080 MSTB 2,5/ 9-ST-5,08

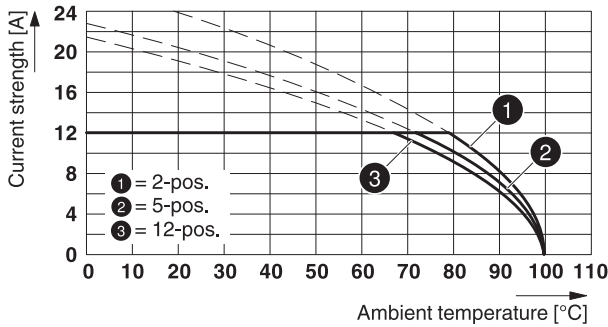
12 Current carrying capacity/derating curves

Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	2.5 mm <sup>2</sup>

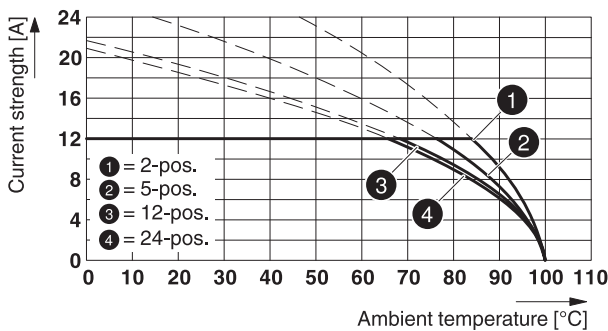
Type: MSTB 2,5/...-ST-5,08 with CC 2,5/...-G-5,08 P26THR



Type: MSTB 2,5/...-ST-5,08 with CCV 2,5/...-G-5,08 P26THR

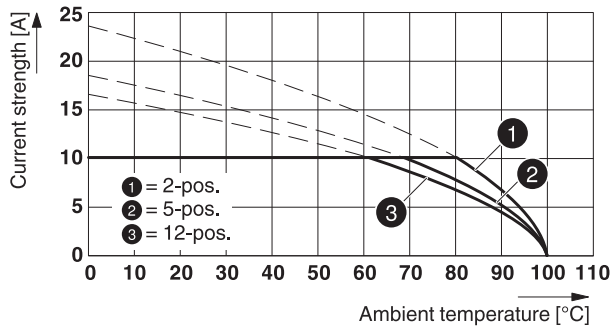


Type: MSTB 2,5/...-ST-5,08 with CCVA 2,5/...-G-5,08 P26THR

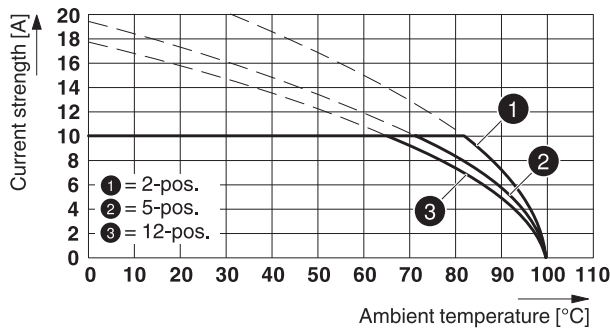


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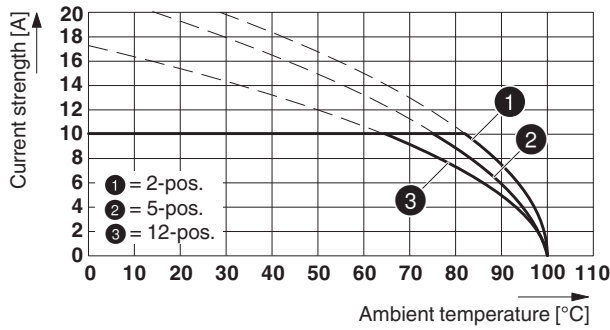
**Type: MSTB 2,5/...-ST-5,08 with MDSTB 2,5/...-G-5,08**



**Type: MSTB 2,5/...-ST-5,08 with MDSTBA 2,5/...-G-5,08**



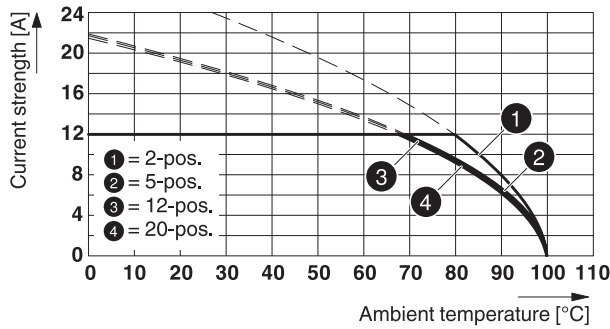
**Type: MSTB 2,5/...-ST-5,08 with MDSTBW 2,5/...-G-5,08**



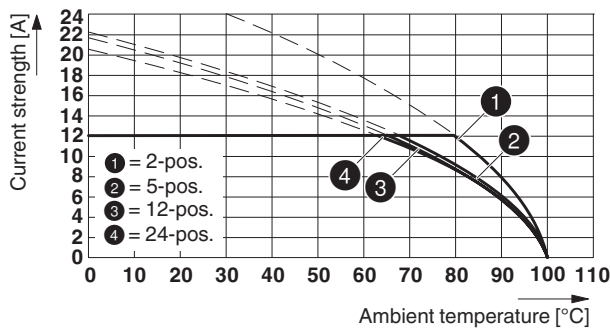
**Type: MSTB 2,5/...-ST-5,08 with MDSTBV 2,5/...-G-5,08**

**1757080 MSTB 2,5/ 9-ST-5,08**

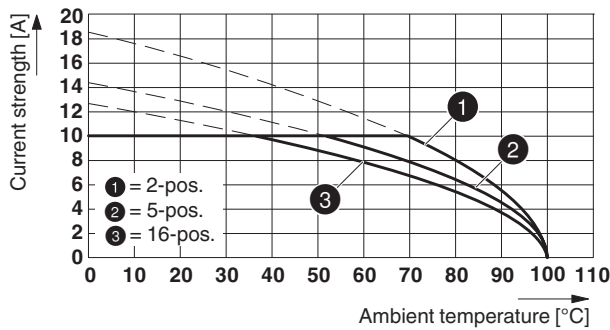
**Type: MSTB 2,5/...-ST-5,08 with MVSTBU 2,5/...-GB-5,08**



**Type: MSTB 2,5/...-ST-5,08 with MSTB 2,5/...-G-5,08**



**Type: MSTBP 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)**

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**Type: MSTB 2,5/...-ST-5,08 with MSTBW 2,5/...-G-5,08**

**Type: MSTB 2,5/...-ST-5,08 with MSTBVA 2,5/...-G-5,08**

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**Type: MSTB 2,5/...-ST-5,08 with MSTBV 2,5/...-G-5,08**

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**1757080 MSTB 2,5/ 9-ST-5,08****13 Environmental and durability tests****13.1 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	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis


**14 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
Lock	no
Connection method	Screw terminal points

**15 Approvals**

CSA 				
Use group	B	D		
mm <sup>2</sup> /AWG/kcmil	28-12	28-12		
Voltage	300 V	300 V		
Current	10 A	10 A		

VDE Gutachten mit Fertigungsüberwachung 				
mm <sup>2</sup> /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	12 A			

IECEE CB Scheme 				
mm <sup>2</sup> /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	12 A			

cULus Recognized 				
Use group	B	D		
mm <sup>2</sup> /AWG/kcmil	30-12	30-12		
Voltage	300 V	150 V		
Current	15 A	15 A		

**1757080 MSTB 2,5/ 9-ST-5,08**

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EAC ENEC

**1757080 MSTB 2,5/ 9-ST-5,08****16 Commercial Data**

Order No.	1757080
Type	MSTB 2,5/ 9-ST-5,08
Pieces per package	50
Net weight	14.894 g
GTIN	4017918029616
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

**17 corresponding headers**

Order No.	Type
1735811	MSTBW 2,5/ 9-G-5,08
1755804	MSTBVA 2,5/ 9-G-5,08
1757310	MSTBA 2,5/ 9-G-5,08
1758089	MSTBV 2,5/ 9-G-5,08
1759088	MSTB 2,5/ 9-G-5,08
1762444	MDSTB 2,5/ 9-G1-5,08
1762570	MDSTBV 2,5/ 9-G1-5,08
1767449	SMSTBA 2,5/ 9-G-5,08
1768011	MSTBA 2,5/ 9-G-5,08-LA
1769531	SMSTB 2,5/ 9-G-5,08
1808531	MSTBV 2,5/ 9-GEH-5,08
1842131	MDSTBA 2,5/ 9-G-5,08
1842283	MDSTBW 2,5/ 9-G-5,08
1842584	MDSTB 2,5/ 9-G-5,08
1845400	MDSTBVA 2,5/ 9-G-5,08
1845552	MDSTBV 2,5/ 9-G-5,08
1859580	EMSTBVA 2,5/ 9-G-5,08
1880371	EMSTBA 2,5/ 9-G-5,08
1898907	DFK-MSTBA 2,5/ 9-G-5,08
1899207	DFK-MSTBVA 2,5/ 9-G-5,08
1954540	CC 2,5/ 9-G-5,08 P26THR
1954650	CC 2,5/ 9-G-5,08 P26THRR88
1954993	CCA 2,5/ 9-G-5,08 P26THR
1955109	CCA 2,5/ 9-G-5,08 P26THRR88
1955484	CCV 2,5/ 9-G-5,08 P26THR
1955594	CCV 2,5/ 9-G-5,08 P26THRR88
1955921	CCVA 2,5/ 9-G-5,08 P26THR
1956030	CCVA 2,5/ 9-G-5,08 P26THRR88
1959134	CCA 2,5/ 9-GL-5,08P26THR
1959202	CCA 2,5/ 9-GL-5,08P26THRR88
1959273	CCA 2,5/ 9-GR-5,08P26THR
1959341	CCA 2,5/ 9-GR-5,08P26THRR88
1959972	CCVA 2,5/ 9-GL-5,08P26THR
1960071	CCVA 2,5/ 9-GL-5,08P26THRR88
1960152	CCVA 2,5/ 9-GR-5,08P26THR
1960220	CCVA 2,5/ 9-GR-5,08P26THRR88



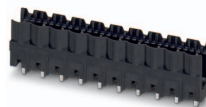

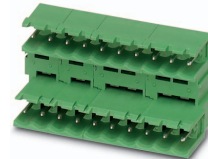
**1757080 MSTB 2,5/ 9-ST-5,08****18 Accessories**

Description	Order 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
	1783782	KGS-MSTB 2,5/ 9
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
	0805108	SK 5,08/2,8:SO
Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm	1051993	B-STIFT



## 1757080 MSTB 2,5/ 9-ST-5,08

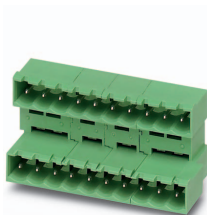
## 19 Combination tests

					
	<b>MSTB 2,5/..-ST</b>	<b>CC 2,5/..-G</b>	<b>CCV 2,5/..-G</b>	<b>CCVA 2,5/..-G</b>	<b>MDSTB 2,5/..-G</b>
Specification		IEC 61984	IEC 61984	IEC 61984	IEC 61984
<b>Mechanical tests (A)</b>					
Insertion/withdrawal force per position		approx. 8 N / 6 N	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	Test passed
Contact holder in insert Requirements >20 N		Test passed	Test passed	Test passed	Test passed
<b>Durability tests (B)</b>					
Contact resistance R <sub>1</sub>		1.3 mΩ	1.2 mΩ	1.3 mΩ	1.6 mΩ
Insertion/withdrawal cycles		25	25	25	25
Contact resistance R <sub>2</sub>		1.4 mΩ	1.2 mΩ	1.4 mΩ	1.6 mΩ
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)		4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)		2.21 kV	2.21 kV	2.21 kV	2.21 kV
Insulation resistance Requirements > 5 MΩ		> 2 TΩ	> 0.1 TΩ	> 7.0 TΩ	> 0.1 TΩ
<b>Thermal tests (C)</b>					
Tested number of positions		12	12	24	12
Tested conductor cross section		2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Test current		12 A	12 A	12 A DC	10 A
Upper limiting temperature Requirements < 100°C		Test passed	Test passed	Test passed	Test passed
<b>Climatic tests (D)</b>					
Test sequence 1: low temperature storage		-40 °C/2 h	-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	100 °C/168 h
Test sequence 3: noxious gas storage (ISO 6988)		0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)		4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)		2.21 kV	2.21 kV	2.21 kV	2.21 kV
<b>Environmental and endurance tests (E)</b>					
Specification		IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10
Degree of protection		Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger

## 1757080 MSTB 2,5/ 9-ST-5,08



MSTB 2,5/..-ST



MDSTBA 2,5/..-G



MDSTBW 2,5/..-G

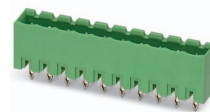
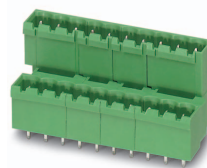
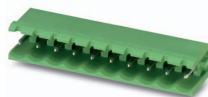
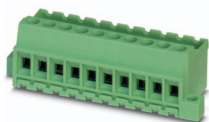


MDSTBV 2,5/..-G

DFK-MSTBA 2,5/  
..-G

Specification	IEC 61984	IEC 61984	IEC 61984	IEC 61984
<b>Mechanical tests (A)</b>				
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	
<b>Durability tests (B)</b>				
Contact resistance R <sub>1</sub>	1.6 mΩ	1.6 mΩ	2.6 mΩ	
Insertion/withdrawal cycles	25	25	25	
Contact resistance R <sub>2</sub>	1.6 mΩ	1.7 mΩ	2.6 mΩ	
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	
Insulation resistance Requirements > 5 MΩ	> 50 GΩ	> 0.3 TΩ	> 50 GΩ	
<b>Thermal tests (C)</b>				
Tested number of positions	12	12	12	
Tested conductor cross section	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	2.5 mm <sup>2</sup>	
Test current	10 A	10 A	10 A	
Upper limiting temperature Requirements < 100°C	Test passed	Test passed	Test passed	
<b>Climatic tests (D)</b>				
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 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> / 40 °C/1 cycle	
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	
<b>Environmental and endurance tests (E)</b>				
Specification	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10	
Degree of protection	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger	

## 1757080 MSTB 2,5/ 9-ST-5,08

**MSTB 2,5/...-ST****MVSTBU 2,5/...-GB****MSTB 2,5/...-G****MDSTBVA 2,5/...-G****EMSTBVA 2,5/...-G**

## Specification

IEC 61984

IEC 61984

IEC 61984

DIN VDE 0627 (in parts)

**Mechanical tests (A)**

## Insertion/withdrawal force per position

approx. 8 N / 6 N

approx. 8 N / 6 N

approx. 8 N / 6 N

approx. 5 N / 4 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  $R_1$ 1.9 m $\Omega$ 1.4 m $\Omega$ 2.5 m $\Omega$ 1.1 m $\Omega$ 

## Insertion/withdrawal cycles

25

25

25

100

Contact resistance  $R_2$ 2.2 m $\Omega$ 1.4 m $\Omega$ 2.5 m $\Omega$ 1.5 m $\Omega$ Rated impulse voltage at sea level  
Voltage waveform  $\geq$  (1.2/50  $\mu$ s)

4.8 kV

4.8 kV

4.8 kV

4.8 kV

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

2.21 kV

2.21 kV

2.21 kV

2.21 kV

Insulation resistance  
Requirements > 5 M $\Omega$ > 0.7 T $\Omega$ > 0.3 T $\Omega$ > 0.2 T $\Omega$ > 8 T $\Omega$ **Thermal tests (C)**

## Tested number of positions

20

24

16

6

## Tested conductor cross section

2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>

## Test current

12 A

12 A

10 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

-40 °C/2 h

## Test sequence 2: heat storage

100 °C/168 h

100 °C/168 h

100 °C/168 h

100 °C/168 h

Test sequence 3: noxious gas storage  
(ISO 6988)0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
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

4.8 kV

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

2.21 kV

2.21 kV

2.21 kV

2.21 kV

**Environmental and endurance tests (E)**

## Specification

IEC 61984:2008-10

IEC 61984:2008-10

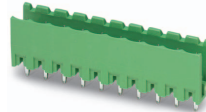
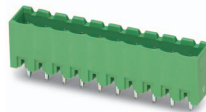
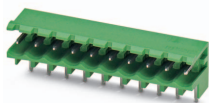
IEC 61984:2008-10

IEC 61984:2008-10

## Degree of protection

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

## 1757080 MSTB 2,5/ 9-ST-5,08

**MSTB 2,5/...-ST****MSTBW 2,5/...-G****MSTBVA 2,5/...-G****MSTBV 2,5/...-G**

## Specification

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<sub>1</sub>

1.3 mΩ

2.4 mΩ

2.4 mΩ

## Insertion/withdrawal cycles

25

25

25

Contact resistance R<sub>2</sub>

1.3 mΩ

2.5 mΩ

2.4 mΩ

Rated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

4.8 kV

4.8 kV

4.8 kV

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 Hz)

2.21 kV

2.21 kV

2.21 kV

Insulation resistance  
Requirements > 5 MΩ

&gt; 0.2 TΩ

&gt; 0.2 TΩ

&gt; 0.2 TΩ

**Thermal tests (C)**

## Tested number of positions

20

24

20

## Tested conductor cross section

2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>

## Test current

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 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycleRated impulse voltage at sea level  
Voltage waveform ≥ (1.2/50 μs)

4.8 kV

4.8 kV

4.8 kV

Power-frequency withstand voltage  
Voltage waveform ≥ (50/60 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