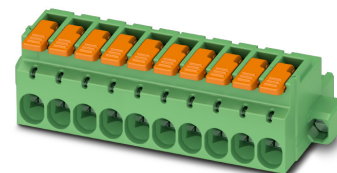


**Order No.: 1110628**

**Type: LPC 2,5/ 2-STF-5,08**

**PCB connector, Lever Push-in connection**



The figure shows an 10-position version

## 1 Main features



- |                           |                          |                        |                     |
|---------------------------|--------------------------|------------------------|---------------------|
| • No. of pos.             | 2                        | • Nominal current      | 16 A                |
| • Conductor cross section | 2.5 mm <sup>2</sup>      | • Nominal voltage      | 320 V               |
| • Color                   | green (6021)             | • Connection direction | 0 °                 |
| • Pitch                   | 5.08 mm                  | • Type of packaging    | packed in cardboard |
| • Connection method       | Lever Push-in connection |                        |                     |

## 2 Your advantages

- ✓ Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- ✓ Clear lever positions provide reliable feedback on opened or closed clamping spaces
- ✓ Time-saving push-in connection when lever is closed
- ✓ Screwable flange for superior mechanical stability
- ✓ Quick and convenient testing using integrated test option



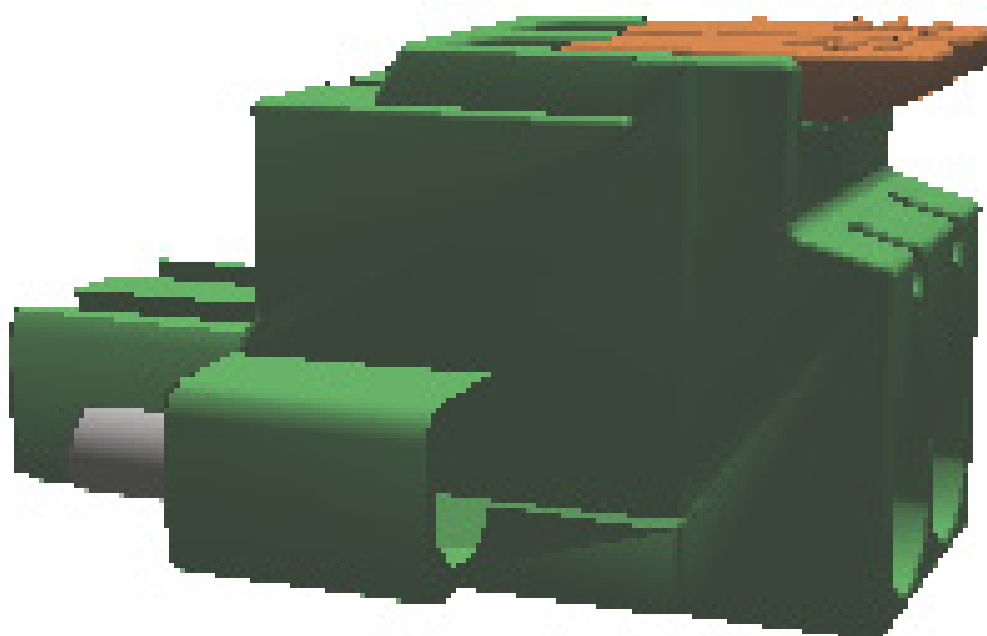
Make sure you always use the latest documentation.  
It can be downloaded at: [phoenixcontact.net/product/1110628](https://phoenixcontact.net/product/1110628)

**3 Table of contents**

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1110628 LPC 2,5/ 2-STF-5,08

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



**1110628 LPC 2,5/ 2-STF-5,08****5 General Technical Data****5.1 item properties**

|                                                            |                          |
|------------------------------------------------------------|--------------------------|
|                                                            |                          |
| Order No.                                                  | 1110628                  |
| Type                                                       | LPC 2,5/ 2-STF-5,08      |
| Connector system                                           | CLASSIC COMBICON         |
| Product type                                               | PCB connector            |
| Type of contact                                            | Female connector         |
| Range of articles                                          | LPC 2,5/...-ST-LR        |
| Pitch                                                      | 5.08 mm                  |
| Number of positions                                        | 2                        |
| Number of levels                                           | 1                        |
| Connection method                                          | Lever Push-in connection |
| Connection direction of the conductor to plug-in direction | 0 °                      |

**1110628 LPC 2,5/ 2-STF-5,08****6 Mounting****6.1 Flange mounting**

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

**1110628 LPC 2,5/ 2-STF-5,08****7 Conductor connection****7.1 Connection capacity**

|                                                                                        |                                                                                 |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Nominal cross section                                                                  | 2.5 mm <sup>2</sup>                                                             |
| Conductor cross section, rigid                                                         | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                     |
| Conductor cross section, flexible                                                      | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                     |
| Conductor cross section flexible, with ferrule without plastic sleeve                  | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Stripping length: 7 mm ... 12 mm) |
| Conductor cross section flexible, with ferrule with plastic sleeve                     | 0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Stripping length: 7 mm ... 12 mm) |
| 2 conductors with the same cross section flexible with TWIN ferrule and plastic sleeve | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (Stripping length: 7 mm ... 12 mm)    |
| Cylindrical gauge a x b / diameter                                                     | 2.8 mm x 2.0 mm / 2.4 mm                                                        |
| Stripping length                                                                       | 10 mm                                                                           |

**7.2 Connection capacity AWG**

|                             |           |
|-----------------------------|-----------|
| Conductor cross section AWG | 26 ... 12 |
|-----------------------------|-----------|

**1110628 LPC 2,5/ 2-STF-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 (4 - 8 µm Sn)                                                       |
| Surface contact area    | Tin (4 - 8 µm Sn)                                                       |
| Surface characteristics | hot-dip tin-plated                                                      |

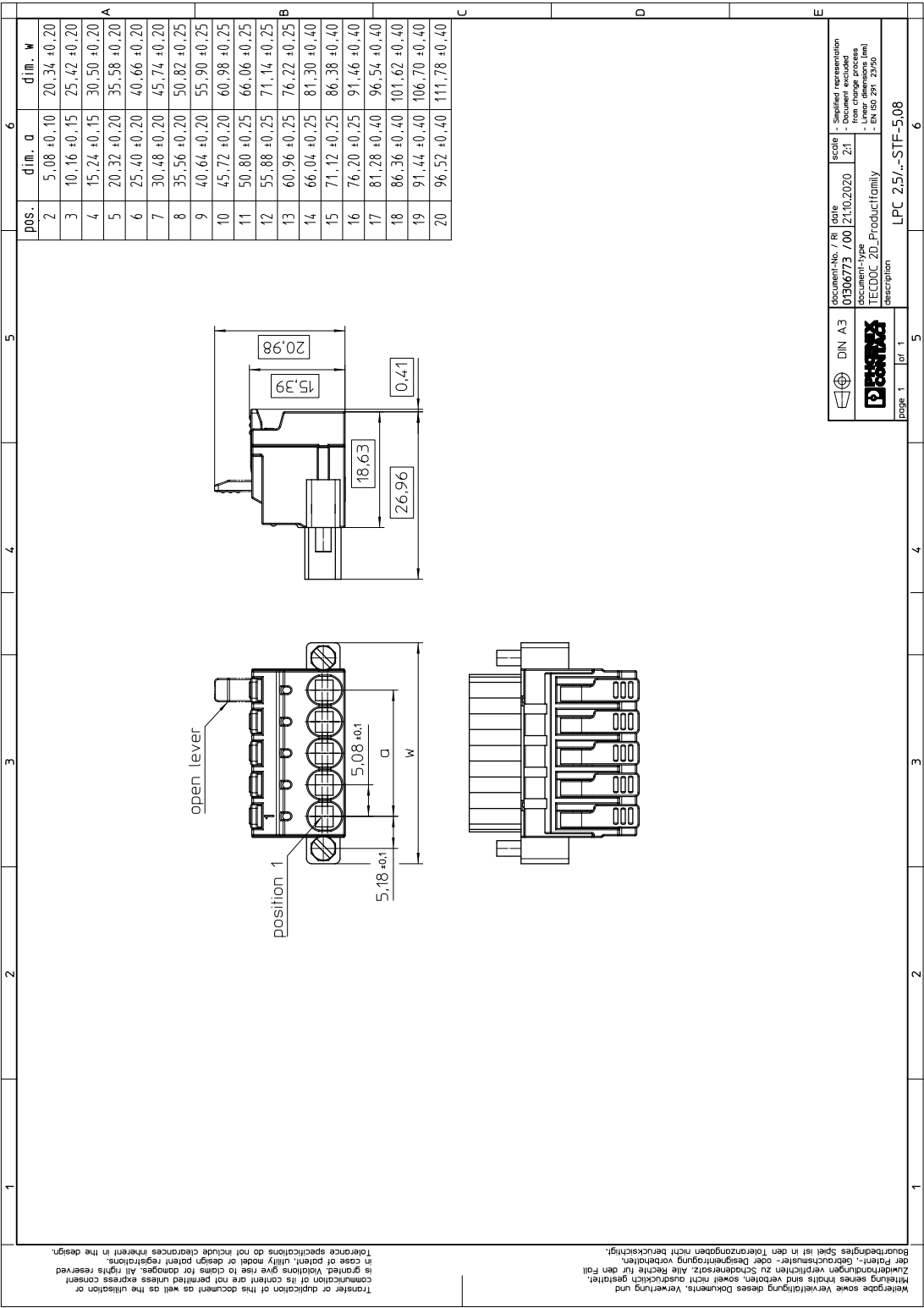
**8.2 Material of plastic parts**

|                                                                   | Housing      | Actuation element |
|-------------------------------------------------------------------|--------------|-------------------|
| Color                                                             | green (6021) | orange (2003)     |
| Insulating material                                               | PA           | PA GF             |
| Insulating material group                                         | I            | I                 |
| CTI according to IEC 60112                                        | 600          | 600               |
| Flammability rating according to UL 94                            | V0           | 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       |                   |

**1110628 LPC 2,5/ 2-STF-5,08****9 Dimensions****9.1 Dimensions for the product**

|              |          |
|--------------|----------|
|              |          |
| Length       | 27.37 mm |
| Width        | 20.34 mm |
| Total height | 15.39 mm |

10 Series drawing



**1110628 LPC 2,5/ 2-STF-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

100

**13 Application**

Ferrules without insulating collar, according to DIN 46228-1

Recommended crimping pliers

1212034 CRIMPFOX 6

Ferrules without insulating collar, according to DIN 46228-1

Cross section: 0.25 mm<sup>2</sup>; Length: 7 mm  
 Cross section: 0.34 mm<sup>2</sup>; Length: 7 mm  
 Cross section: 0.5 mm<sup>2</sup>; Length: 8 mm ... 10 mm  
 Cross section: 0.75 mm<sup>2</sup>; Length: 8 mm ... 10 mm  
 Cross section: 1 mm<sup>2</sup>; Length: 8 mm ... 12 mm  
 Cross section: 1.5 mm<sup>2</sup>; Length: 10 mm ... 12 mm  
 Cross section: 2.5 mm<sup>2</sup>; Length: 10 mm ... 12 mm

Ferrules with insulating collar, according to DIN 46228-4

Recommended crimping pliers

1212034 CRIMPFOX 6

Ferrules with insulating collar, according to DIN 46228-4

Cross section: 0.25 mm<sup>2</sup>; Length: 8 mm ... 10 mm  
 Cross section: 0.34 mm<sup>2</sup>; Length: 8 mm ... 10 mm  
 Cross section: 0.5 mm<sup>2</sup>; Length: 8 mm ... 10 mm  
 Cross section: 0.75 mm<sup>2</sup>; Length: 10 mm ... 12 mm  
 Cross section: 1 mm<sup>2</sup>; Length: 10 mm ... 12 mm  
 Cross section: 1.5 mm<sup>2</sup>; Length: 10 mm ... 12 mm  
 Cross section: 2.5 mm<sup>2</sup>; Length: 12 mm

**13.1 Temperature limit values**

Ambient temperature (storage/transport)

-40 °C ... 70 °C

Ambient temperature (assembly)

-5 °C ... 100 °C

Ambient temperature (operation)

-40 °C ... 105 °C (dependent on the derating curve)

**1110628 LPC 2,5/ 2-STF-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 <sup>2</sup> / solid / > 10 N    |
| Conductor cross section/conductor type/tractive force actual value | 0.2 mm <sup>2</sup> / flexible / > 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> / flexible / > 50 N |

**15.3 Repeated connection and disconnection**

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

**15.4 Conductor connection**

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

**15.5 Visual examination**

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

**15.6 Dimensional test**

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

**15.7 Resistance of marking**

**1110628 LPC 2,5/ 2-STF-5,08**

Resistance of marking

Test passed

Specification

IEC 60068-2-70:1995-12

**15.8 Polarization and coding**Polarization when inserted  
Requirement >20 N

Test passed

Specification

IEC 60512-13-5:2006-02

**1110628 LPC 2,5/ 2-STF-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                    |

**1110628 LPC 2,5/ 2-STF-5,08****17 Electrical tests**

|                                         |                            |
|-----------------------------------------|----------------------------|
| Rated current / conductor cross section | 16 A / 2.5 mm <sup>2</sup> |
| Rated insulation voltage (III/2)        | 320 V                      |
| Rated surge voltage (III/2)             | 4 kV                       |
| Contact resistance                      | 2 mΩ                       |
| Degree of pollution                     | 2                          |

**17.1 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 |

**17.2 Electrical function**

|                                      |                                              |
|--------------------------------------|----------------------------------------------|
| Specification                        | IEC 60999-1:1999-11                          |
| Result                               | Test passed                                  |
| Voltage drop                         | Voltage drop (U) after the load $\leq 15$ mV |
| Test current (minimum cross section) | 3 A AC                                       |
| Test current (maximum cross section) | 16 A AC                                      |
| Conductor cross section, flexible    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |
| Conductor cross section, rigid       | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>  |

**17.3 Temperature cycles**

|                                      |                                                                                                                        |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Specification                        | IEC 60999-1:1999-11                                                                                                    |
| Result                               | Test passed                                                                                                            |
| Voltage drop                         | Voltage drop (U) after the load $\leq 22.5$ mV or $1.5 \times U_{\text{after 24 h}}$<br>The small value is to be used. |
| Test current (minimum cross section) | 3 A AC                                                                                                                 |
| Test current (maximum cross section) | 16 A AC                                                                                                                |
| Temperature cycles                   | 192                                                                                                                    |
| Conductor cross section, flexible    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                                                            |
| Conductor cross section, rigid       | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                                                            |

**1110628 LPC 2,5/ 2-STF-5,08****18 Current carrying capacity/derating curves**

Specification

IEC 61984:2008-10

Note

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

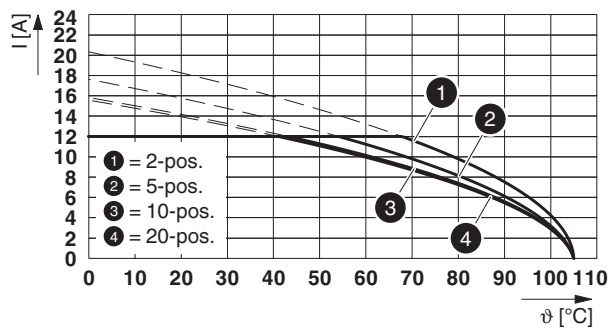
Note

For number of positions, see diagram

Reduction factor

0.8

Conductor cross section

2.5 mm<sup>2</sup>**Type: LPC 2,5/...-STF-5,08 with MSTBV 2,5/...-GF-5,08**

**1110628 LPC 2,5/ 2-STF-5,08****19 Environmental and durability tests****19.1 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           | 50 m/s <sup>2</sup> (60.1 - 150 Hz) |
| Test duration per axis | 2.5 h                               |
| Test directions        | X-, Y- and Z-axis                   |
| Note                   |                                     |

**19.2 Railway application, vibration test**

|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Specification   | IEC 61373:2010-05                                   |
| Result          | Test passed                                         |
| Testing         | Vibration, broadband noise                          |
| Frequency       | 5 - 150 Hz                                          |
| Test directions | X-, Y- and Z-axis (pos. and neg.)                   |
| Spectrum        | Service life test category 1, class B, body mounted |
|                 |                                                     |

**19.3 Shock test**

|                                |                                   |
|--------------------------------|-----------------------------------|
| Specification                  | IEC 60068-2-27:2008-02            |
| Result                         | Test passed                       |
| Pulse shape                    | Semi-sinusoidal                   |
| Peak acceleration              | 200 m/s <sup>2</sup>              |
| Shock duration                 | 11 ms                             |
| Number of shocks per direction | 3                                 |
| Test directions                | X-, Y- and Z-axis (pos. and neg.) |

**20 Classification for connectors**

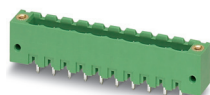
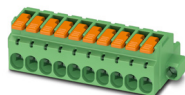
|                                   |                                              |
|-----------------------------------|----------------------------------------------|
| Specification                     | IEC 61984:2008-10                            |
| Main features                     | Connectors 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                 | Screwless terminal points                    |

**1110628 LPC 2,5/ 2-STF-5,08****21 Commercial Data**

|                    |                                                      |
|--------------------|------------------------------------------------------|
| Order No.          | 1110628                                              |
| Type               | LPC 2,5/ 2-STF-5,08                                  |
| Pieces per package | 100                                                  |
| Net weight         | 2.22 g                                               |
| GTIN               | 4063151027650                                        |
|                    | Information that applies locally, see link on page 1 |
|                    | Information that applies locally, see link on page 1 |

**22 Accessories**

| Description                                                                                                                                                      | Order No. | Type        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|
| Coding profile, is inserted into the slot on the plug or inverted header, red insulating material                                                                | 1734634   | CP-MSTB     |
| 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 |

**1110628 LPC 2,5/ 2-STF-5,08****23 Combination tests****LPC 2,5/...-ST-LR**

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  $\geq (50/60 \text{ Hz})$ **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

**MSTBV 2,5/...-GF**

IEC 61984

approx. 8 N / 6 N

Test passed

Test passed

2 m $\Omega$ 

25

2.2 m $\Omega$ 

4.8 kV

2.21 kV

20

2.5 mm<sup>2</sup>

12 A

Test passed

-40 °C/2 h

105 °C/168 h

0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle

4.8 kV

2.21 kV

IEC 61984:2008-10

Finger safety with IP20  
test finger