All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface
According to RN 059-01

Documents
Pinning instruction RN 053-01
Panel piercing MB_215
Test specification RN 061-01

Material and plating
Connector parts
Center contact Spring bronze,
Tin, 0.5-2 μm (PCB)
Outer contact Brass, Ni 3-6 μm (Interface),
Tin 3-6 μm (PCB)
Dielectric LCP
Housing HTN

Plating
Gold, 0.15 μm (Interface)
Tin, 0.5-2 μm (PCB)
Ni 3-6 μm (Interface)
Tin 3-6 μm (PCB)
### Technical Data Sheet

**Rosenberger HSD® RIGHT ANGLE PLUG FOR PCB**

#### Electrical data
- **Impedance, differential mode**: 100 Ω differential signalling, for one pair or quad cable shielded
- **Frequency**: DC to 2.0 GHz
- **Return loss**:
  - ≥ 20 dB to 1.0 GHz
  - ≥ 17 dB to 2.0 GHz
- **Insertion loss**: ≤ 0.1 dB @ 1.0 GHz
- **Skew (between signal contacts)**: < 5 psec.
- **Nearend-Crosstalk**: ≤ 30 dB
- **Farend-Crosstalk**: ≤ 35 dB
- **Insulation resistance**: ≥ 1x10³ MΩ
- **Signal contact resistance**: ≤ 10 mΩ
- **Outer contact resistance**: ≤ 7.5 mΩ
- **Test voltage**: 250 V rms
- **Working voltage**: 100 V rms
- **Power current**: ≤ 1.5 A DC
- **RF-leakage (shielding effectiveness)**:
  - ≥ 75 dB up to 1 GHz (IEC 62153-4-7)
  - ≥ 65 dB up to 2 GHz (IEC 62153-4-7)

#### Mechanical data
- **Mating cycles**: ≥ 25
- **Engagement force**: ≤ 30 N
- **Disengagement force**: ≥ 5 N
- **Retention force latch**: ≥ 110 N
- **Coding efficiency**: ≥ 80 N

#### Environmental data
- **Temperature range**: -40°C to +105°C
- **Thermal shock**: DIN IEC 60068-2-14 Test Na
- **Temperature and humidity**: USCar 2 – 4 5.6.2
- **Vibration (Random)**: DIN IEC 60068-2-64
- **Mechanical Shock**: DIN IEC 60068-2-27
- **High-Temp. Exposure**: DIN IEC 60068-2-2
- **Soldering profile**: acc. to IEC 60068-2-58; Group 3&4
- **RoHS**: compliant

#### Tooling
- **N/A**

#### Suitable cables
- **N/A**

#### Packing
- **Standard**: 200 pcs in tape & reel
- **Weight**: 6.84 g/pce
Coding
Part Number has to be accomplished by codification

<table>
<thead>
<tr>
<th>Coding</th>
<th>Plug Colour</th>
<th>RAL</th>
<th>Part-Number</th>
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<tbody>
<tr>
<td>A</td>
<td>black</td>
<td>sim. 9005</td>
<td>D4S20L-40MA5-A</td>
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<tr>
<td>B</td>
<td>white</td>
<td>sim. 9001</td>
<td>D4S20L-40MA5-B</td>
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<tr>
<td>C</td>
<td>blue</td>
<td>sim. 5005</td>
<td>D4S20L-40MA5-C</td>
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<td>D</td>
<td>bordeaux</td>
<td>sim. 4004</td>
<td>D4S20L-40MA5-D</td>
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<td>E</td>
<td>green</td>
<td>sim. 6002</td>
<td>D4S20L-40MA5-E</td>
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<tr>
<td>F</td>
<td>brown</td>
<td>sim. 8011</td>
<td>D4S20L-40MA5-F</td>
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<tr>
<td>Z</td>
<td>waterblue</td>
<td>sim. 5021</td>
<td>D4S20L-40MA5-Z</td>
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Change History

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<th>Date</th>
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<td>e00</td>
<td>28.01.14</td>
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<tr>
<td></td>
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<td>- Assembly Instruction D4V010</td>
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<td>- Material and plating changed</td>
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<tr>
<td></td>
<td></td>
<td>- Material PA 6T/66 to HTN</td>
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<td>- Right Angle Plug removed</td>
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<tr>
<td></td>
<td></td>
<td>- measurement 0.55</td>
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<td>f00</td>
<td>07.04.14</td>
<td>Dimension change from 0.55/Ø0.63±0.03 to Ø0.68±0.03</td>
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<tr>
<td>g00</td>
<td>04.04.17</td>
<td>Overall length changed from 27,6 to 27,3</td>
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