

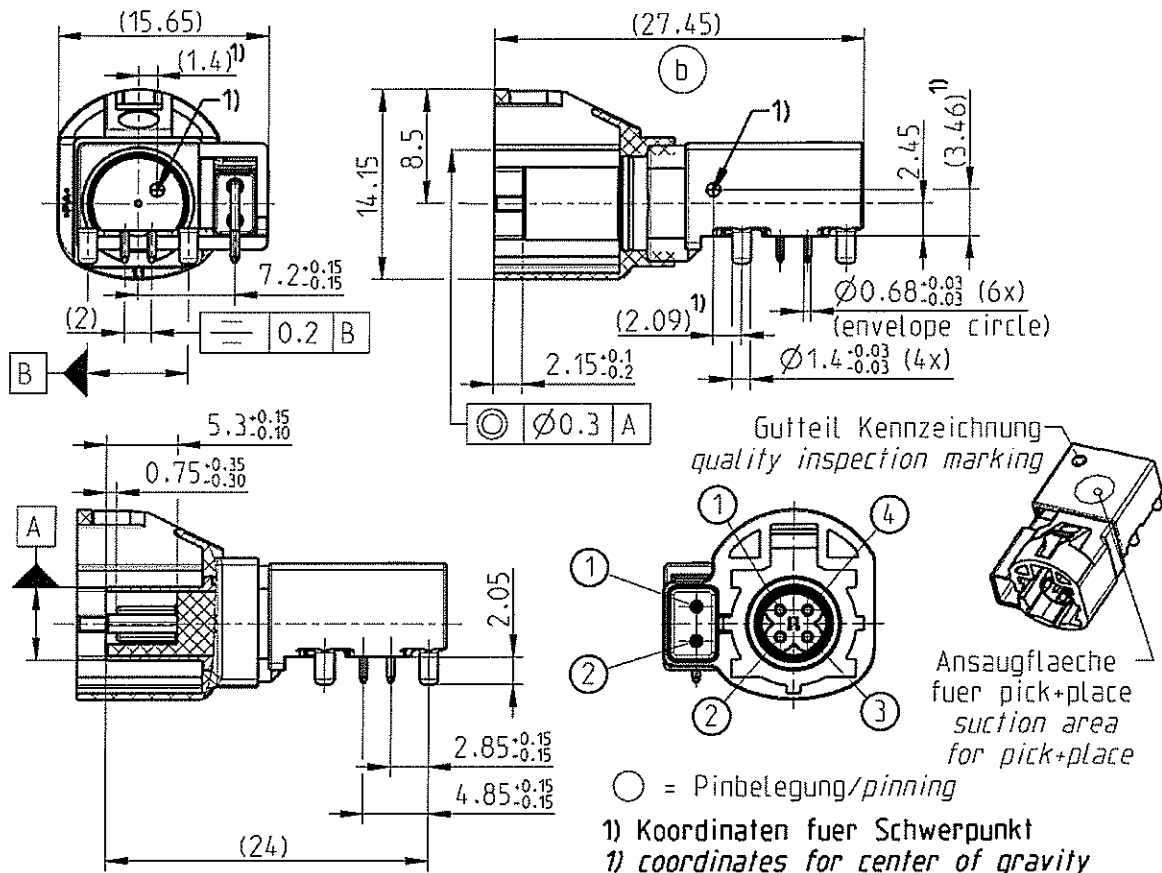
Technical Data Sheet

Rosenberger

HSD

RIGHT ANGLE PLUG PCB

99S20D-40MA5-Y



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

EMC-screening must be assured by chassis compartment. Control box manufacturer is responsible for EMC-screening

Interface

RF-Connector

RN_066-01

Documents

PCB layout
Pinning instruction
Tape & reel packaging

MB_310
RN_053-01
VG147.25000

Material and plating

Connector parts

Center contact
Outer contact 1 (Interface)
Outer contact 2 (PCB)
Dielectric
Plastic housing
Power pins

Material

Spring bronze
Brass
Zinc Alloy
LCP
HTN
Spring bronze

Plating

Gold, 0.15 μm (Interface), Tin, 0.5-2 μm (PCB)
Nickel, 3-6 μm
Tin, 2-6 μm , over nickel
Tin, 2-6 μm , over nickel

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RF_35/05.10/6.0

Electrical data

| | |
|--|--|
| Impedance, even mode | ≈ 32 Ω common mode only |
| 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) | ≤ 20 psec. (can be reduced by layout) |
| Nearend-Crosstalk | ≤ 30 dB |
| Farend-Crosstalk | ≤ 35 dB |
| Insulation resistance | ≥ 1x10 ³ MΩ |
| Signal contact resistance | ≤ 10 mΩ |
| Outer contact resistance | ≤ 7.5 mΩ |
| Test voltage | 500 V rms |
| Working voltage | 100 V rms |
| Test current capability at 80°C | ≤ 1.5 A DC |
| Test current capability at 80°C MQS pins | ≤ 5.0 A DC (dependent on mating connector and cable) |
| 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 | ≤ 60 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 (-40°C/+105°C) |
| Temperature humidity cycling | USCar 2 – 4 – 5.6.2 (test temperature +105°C) |
| Vibration | DIN IEC 60068-2-64 (class 2) |
| Mechanical shock | DIN IEC 60068-2-27 |
| Dry Heat | DIN IEC 60068-2-2 (temperature +105°C) |
| Max. soldering temperature | +260°C for 10 sec. |
| RoHS | compliant |

Tooling

N/A

Packing

| | |
|----------|---|
| Standard | 250 pcs in tape&reel; 185 pcs. in tape&reel |
| Weight | 8.15 g/pce |



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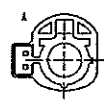
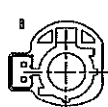
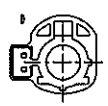

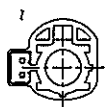
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|-----------------------------|----------------------|-----------------------|
| Technical Data Sheet | | Rosenberger |
| HSD | RIGHT ANGLE PLUG PCB | 99S20D-40MA5-Y |

Coding
Part number has to be accomplished by codification

| Coding | Plug | Color | RAL | Part-Number |
|--------|---|------------|-----------|----------------|
| A |  | black | sim. 9005 | 99S20D-40MA5-A |
| B |  | white | sim. 9001 | 99S20D-40MA5-B |
| D |  | bordeaux | sim. 4004 | 99S20D-40MA5-D |
| E |  | green | sim. 6002 | 99S20D-40MA5-E |
| Z |  | water blue | sim. 5021 | 99S20D-40MA5-Z |

Change History

| Rev. | Date | Change |
|------|----------|-------------------------------------|
| b00 | 25.03.14 | Dimension (28) to (27.45) |
| c00 | 02.07.14 | Packing added 185 pcs. in tape&reel |

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

| | | | | | | | |
|--|----------|------------|----------|---|---------------------------|-------------|---------------|
| Draft | Date | Approved | Date | Rev. | Engineering change number | Name | Date |
| M. Zebhauser | 09.09.09 | T. Höfling | 02.07.14 | c00 | 14-0940 | M. Kotewitz | 02.07.14 |
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