

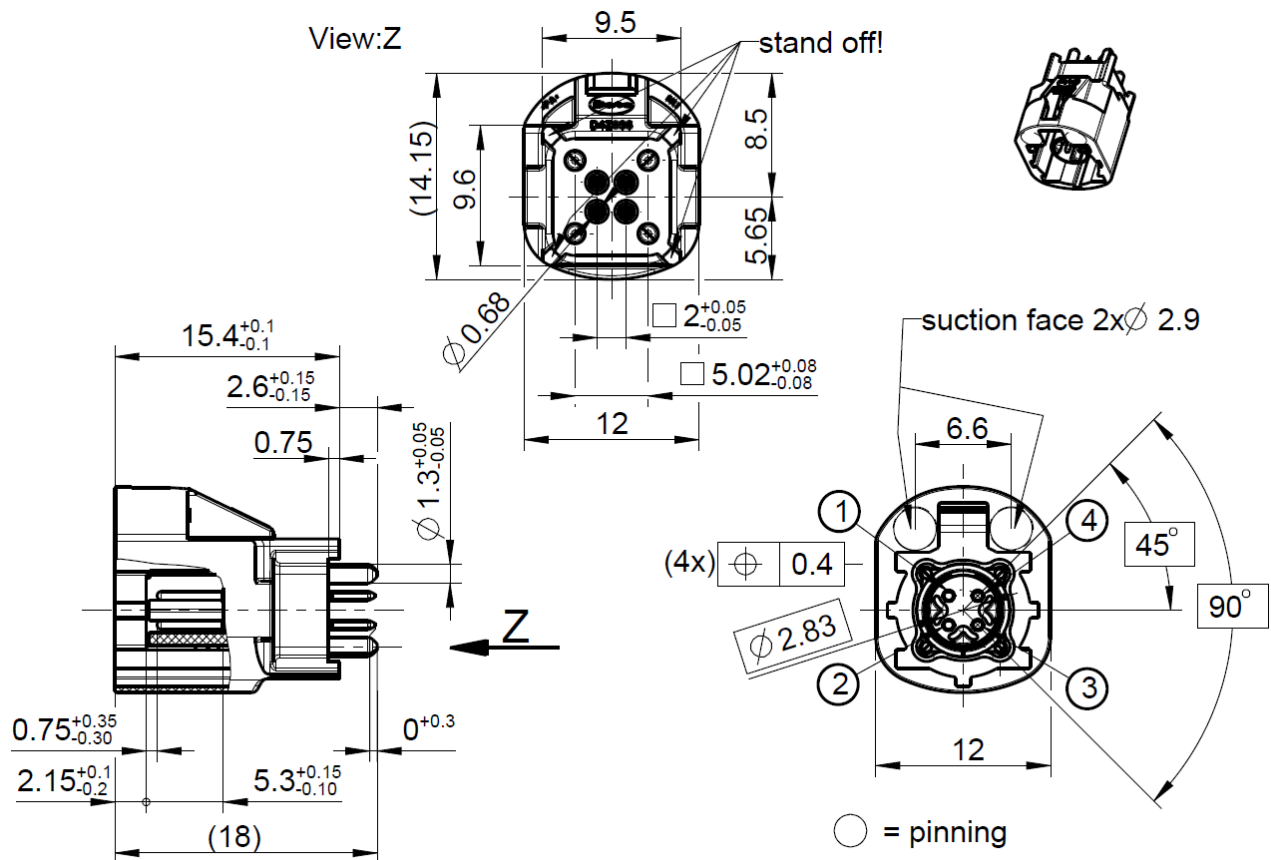
# Technical Data Sheet

# Rosenberger

Rosenberger  
HSD®

STRAIGHT PLUG  
PCB

## D4S10E-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

According to

RN\_059-01 / 999-U-004-2-Z01 USCAR-EWCAP (h)

### Documents

PCB layout  
Pinning instruction  
Test specification  
Tape and Reel packaging

MB\_759  
RN\_053-01  
RN\_061-01  
VG160.15000

### Material and plating

#### Connector parts

Center contact  
  
Outer contact  
  
Housing with integrated dielectric

#### Material

Spring bronze  
  
Spring bronze  
  
PA

#### Plating

Gold, 0.15 µm (Interface)  
Tin, 2.0-4.0 µm over Nickel; PCB  
Nickel, 3.0-5.0 µm (Interface)  
Tin, 2.0-4.0 µm over Nickel; 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	≥ 1x10 <sup>3</sup> MΩ
Signal contact resistance	≤ 10 mΩ
Outer contact resistance	≤ 7.5 mΩ
Test voltage	250 V rms
Working voltage	<sup>g</sup> 60 V DC
Power current	≤ 2.5 A DC at 85°C
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

\* according to USCAR 25 Rev. 3 and the tests specified in USCAR 2 Rev.6 5.4.2 <sup>h</sup>

**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

**Packing**

Standard	50 pcs in blister; 150 pcs in tape and reel
Weight	2.05 g/pce

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF\_35/05.10/6.2