

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

**Documents**

Assembly instruction	acc. D4V016
PCB layout	acc. MB_285
Pinning instruction	RN 053-01
Test specification	RN 061-01
Blister packaging	Pick&Placeable (shape tbd)

**Material and plating**

**Connector parts**

Center contacts	Brass
Outer contact (Interface)	Brass
Outer contact (PCB)	Zinc Alloy
Dielectric	LCP
Housing	PA 6T/66

**Plating**

Gold, 0.15 µm  
 Nickel, 2.5-5 µm  
 Tin, 2-5 µm

HSD STRAIGHT PLUG FOR  
PCB**D4S12H-40MA5-Y****Electrical data**

Impedance, differential mode	100 $\Omega$ differential signalling, for one pair or quad cable shielded
Frequency	DC to 2.0 GHz
Return loss	$\geq 20$ dB to 1.0 GHz $\geq 17$ dB to 2.0 GHz
Insertion loss	$\leq 0.1$ dB @ 1.0 GHz
Skew (between signal contacts)	$\leq 5$ psec.
Nearend-Crosstalk	$\leq 30$ dB
Farend-Crosstalk	$\leq 35$ dB
Insulation resistance	$\geq 1 \times 10^3$ M $\Omega$
Signal contact resistance	$\leq 10$ m $\Omega$
Outer contact resistance	$\leq 7.5$ m $\Omega$
Test voltage	250 V rms
Working voltage	100 V rms
Power current	$\leq 1.5$ A DC
RF-leakage ( shielding effectiveness )	$\geq 75$ dB up to 1 GHz (IEC 62153-4-7) $\geq 65$ dB up to 2 GHz (IEC 62153-4-7)

**Mechanical data**

Mating cycles	$\geq 25$
Engagement force	$\leq 30$ N
Disengagement force	$\geq 5$ N
Retention force latch	$\geq 110$ N
Coding efficiency	$\geq 80$ 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
2002/95/EC (RoHS)	compliant

**Tooling**

N/A

**Suitable cables**








N/A

**Packing**

Standard	150 pcs on tape&reel
Weight	2.7 g/

**Coding**

Part Number has to be accomplished by codification

Coding	Plug	Colour	RAL	Part-Number
A		black	sim. 9005	D4S12H-40MA5-A
B		white	sim. 9001	D4S12H-40MA5-B
C		blue	sim. 5005	D4S12H-40MA5-C
D		bordeaux	sim. 4004	D4S12H-40MA5-D
E		green	sim. 6002	D4S12H-40MA5-E
F		brown	sim. 8011	D4S12H-40MA5-F
Z		waterblue	sim. 5021	D4S12H-40MA5-Z

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Thomas Höfling	20/04/11	Thomas Höfling	11/08/11	a00	11-s358	A.Kott	11/08/11

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