

HSD FAMILY SPECIFICATION

page 1 / 2

Electrical characteristics

Characteristic impedance	100 +/- 10%	Ω
Operating frequency	up to 2 GHz	
Return loss (typical)	at 1 GHz: ≥ 20dB; at 2 GHz: ≥ 17dB	
RF-Leakage	up to 1GHz: ≥ 75dB; up to 2GHz: ≥ 65dB	
Insertion loss	≤ 0,1	dB
Insulation resistance	≥ 1x10 ³	MΩ
Center contact resistance	≤ 10	mΩ
Outer contact resistance	≤ 7,5	mΩ
Contact current max. (DC)	≤ 1,5	A DC
Operating voltage	max.100	V DC
Proof voltage	min. 250	V eff.
Nearend Crosstalk	≤ 33	dB
Farend Crosstalk	≤ 28	dB
Skew (between signal contacts)	≤ 20	psec (angle version)

Mechanical characteristics

Engagement force (typical)	≤ 30	N
Separating force (typical)	≥ 5	N
Mating cycles	≥ 25	
Coding efficiency	≥ 80	N
Retention force locked system	≥ 110	N

Materials

Male:	
Outer contact	Brass
Centre contact	Brass or equivalent
Plastic housing	PA or equivalent
Other metal parts	Zink alloy
Insulator	LCP
Cap	Zink alloy

Standard plating

Male:	
Outer contact	Ni 3-6 µm
Centre contact	Au min. 0,15 µm
Plastic housing	-
Other metal parts	Cu + Ni + Tin plated
Insulator	-
Cap	Cu + Ni

Environmental influences

Operating temperature range	-40°C up 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

Solder profile: IEC 60068-2-58 Group 3&4

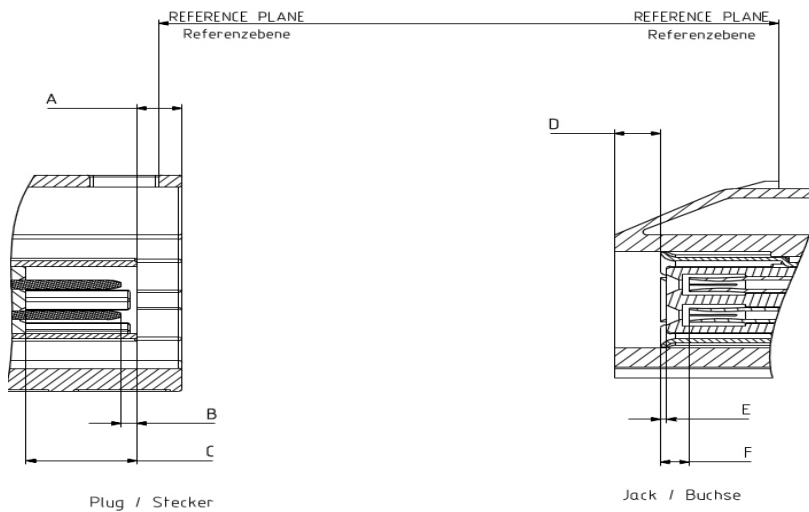
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Revision: -

Approved: RBg, MF

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Interface dimensions



	Plug / Stecker (mm)		Jack / Buchse (mm)	
	min.	max.	min.	min.
A	1,95	2,25		
B	0,45	1,1		
C	5,2	5,45		
D			2	2,27
E			0,2	0,45
F			1,02	1,67

Codings, Cable down

Kodierung Coding	Plug	Farbe Color	ae hnl RAL similar to RAL
A = A-B-E1		tiefschwarz jet black	9005
B = A-C-E1		cremeweiss cream	9001
C = B-D-E1		signalblau signal blue	5005
D = C-D-E1		bordeauxviolett claret violet	4004
E = B-C-E1		laubgruen leaf green	6002
F = A-D-E1		nussbraun nut-brown	8011
Z		wasserblau water-blue	5021

Kodierung Coding	Plug	Farbe Color	ae hnl RAL similar to RAL
G = A-B-E2		blaugrau bluish gray	7031
H = A-C-E2		erikaviolett heather violet	4003
J = B-D-E2		beige beige	1001
K = C-D-E2		currygelb curry	1027
L = B-C-E2		gelbgruen yellow green	6018
M = A-D-E2		pastellorange pastel orange	2003
O		lichtgruen light green	6027

Colors of the plastic housings are in accordance with the listed RAL colors, minor colour differences during manufacturing are possible.

IMS Connector Systems connectors fulfill in principle the indicated technical data. Individual values of the connectors may deviate depending based on applications, design, type of cables, assembly method and execution. Specific product data sheets for particular products can be provided on request from your IMS Connector Systems sales contact.