

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 MB_310
 Pinning instruction RN_053-01
 Tape & reel packaging VG147.25000

Material and plating

Connector parts

Connector parts	Material	Plating
Center contact	Spring bronze	Gold, 0.15 µm (Interface), Tin, 0.5-2 µm (PCB)
Outer contact 1 (Interface)	Brass	Nickel, 3-6 µm
Outer contact 2 (PCB)	Zinc Alloy	Tin, 2-6 µm, over nickel
Dielectric	LCP	
Plastic housing	HTN	
Power pins	Spring bronze	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

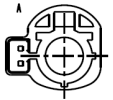

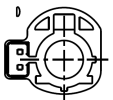
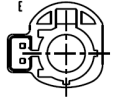



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Coding

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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