



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

Order No	Gas capsule nom. Voltage	Impulse spark over voltage	Power handling (at 20 °C, sea level, VSWR 1.0)
53BK590-K090N1	90 V	< 700 V	150 W
53BK590-K200N1	200 V	< 700 V	500 W
53BK590-K350N1	350 V	< 800 V	2000 W

Interface

According to IEC 61169-16, MIL-PRF-39012, CECC 22210

Documents

Panel piercing B 10

Material and plating

Connector parts

Center contact
Outer contact
Dielectric
Gasket

Material

Spring bronze
Brass
PTFE
Silicone

Plating

Silver, 3-6 µm
Flash white bronze over silver(e.g. Optargen®)

N 50 Ω SURGE ARRESTER
JACK - PLUG

53BK590-SXXXN1

Electrical data

Impedance	50 Ω
Frequency	DC to 4000 MHz
Return loss	≥ 28 dB DC to 3000 MHz ≥ 22 dB 3000 MHz to 4000 MHz
Insertion loss	≤ 0.1 dB
Insulation resistance	≥ 5 x10 ³ MΩ
Center contact resistance	≤ 5 mΩ
Outer contact resistance	≤ 0.1 mΩ
RF-leakage	≥ 128 dB up to 1 GHz
Intermodulation (3 rd order)	≤ -70 dBm @ 2 x 20 W
DC bypass	20A @ 50V, max. Voltage depends on gas capsule
Nominal impulse discharge current	10 kA single / 5 kA multiple (test pulse 8/20 μs)
Residual pulse energy	≤ 1.2 mJ (test pulse 4 kV 1.2/50μs / 2kA 8/20μs)

Mechanical data

Mating cycles	min. 500
Coupling nut retention	≥ 450 N
Center contact captivation: axial	≥ 28 N
radial	≥ 3 Ncm
Coupling test torque	max. 1.7 Nm
Recommended torque	0.7 Nm to 1.1 Nm

Environmental data

Temperature range	-45°C to +125°C
Thermal shock	MIL-STD-202, Meth. 107, Cond. B
Corrosion	MIL-STD-202, Meth. 101, Cond. B
Vibration	MIL-STD-202, Meth. 204, Cond. B
Shock	MIL-STD-202, Meth. 213, Cond. I
Moisture resistance	MIL-STD-202, Meth. 106
Degree of protection (mated pair)	IEC 60529, IP68 2.5 bar
RoHS	compliant

Weight

Weight	69.5 g/pce
--------	------------

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
H.Schütt	18/02/10	Sa. Krautenbacher	18.03.14	200	14-0352	T. Krojer	18.03.14
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de					Tel.: +49 8684 18-0 Fax: +49 8684 18-499 email: info@rosenberger.de		Page 2 / 2