



Radio Frequency Systems line of high performance HELIFLEX® coaxial cable connectors are characterized by excellent gas tightness and extremely low losses. HELIFLEX®Lite connectors can be installed with basic hand tools, but the use of dedicated installation tools further facilitates ease of assembly and improves performance.

RFS connectors are fully tested for mechanical and electrical compliance specifications. HELIFLEX®Lite premium connectors have excellent electrical values and provide outstanding performance for the most demanding applications. The RFS connector design provides maximum sealing integrity and gas tightness.

**FEATURES / BENEFITS**

- Lightweight
- Excellent gas tightness, Overpressure for increased voltage handling is maintained throughout the system.
- Robust Mechanical Design, Superior and consistent performance guarantees outstanding system characteristics.
- Extremely low reflection factor, Outstanding low reflection factor improves overall system performance and margin and reduces mismatch losses
- Totally Waterproof according to IP 66 / 68, Assures safe, long term operation in the harshest of environments. System tightness doesn't have to rely on overpressure from dehydration equipment.
- Easy to install, no special tools needed. Only basic hand tools required. No additional cost to the installer.
- RoHs (EU) and CRoHs (China) compliant, can be used on a global basis.



Connector EIA 7/8"

**Technical features**

**GENERAL SPECIFICATIONS**

Transmission Line Type		Coaxial Cable
Cable Size		7/8"
Cable Type		Air Dielectric
Model Series		HCA78-50 Series
Connector Interface		7/8" EIA
Connector Type		Gas pass
Sealing Method		Sealing compound <sup>1</sup> )
Gender		Female

**ELECTRICAL SPECIFICATIONS**

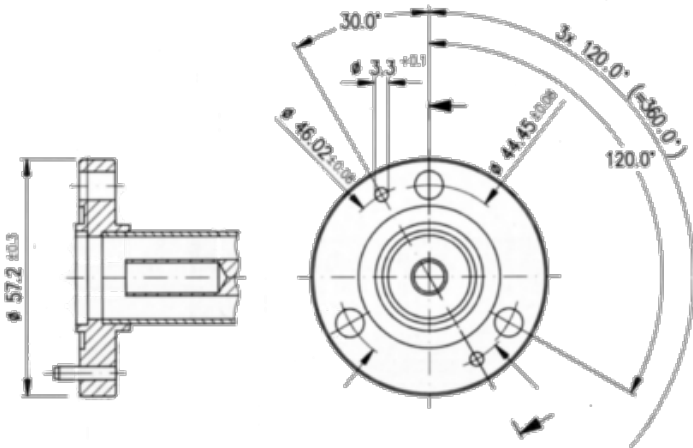
Insertion loss	dB	< 0.05dB
VSWR, Return Loss	VSWR (dB)	0 <f ≤ 1.0 GHz: 1.02 (40) 1.0 <f ≤ 2.3 GHz: 1.03 (36.6) 2.3 <f ≤ 3.0 GHz: 1.06 (30.7)

**MECHANICAL SPECIFICATIONS**

Plating Outer/Inner		Silver/Silver
Length	mm (in)	98 (3.85)
Outer Diameter	mm (in)	57.2 (2.25)
Inner Contact Attachment		Threaded
Outer Contact Attachment		Tab Flare

**TESTING AND ENVIRONMENTAL**

Waterproof Level		IP66	IP68
Sealing Volume, cm3 (ounces)	cm <sup>3</sup> (ounces)	8 (0.27)	



[External Document Links](#)  
[Installation Instruction](#)

**Notes**

To join two cables with EIA connectors, two identical socket connectors are installed on either end of the cables to be joined, and a coupling element is used to make the connection of the center conductor.

**The coupling element must be ordered separately.**

1) The sealing compound must be ordered separately.