



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 1-5/8" EIA

Technical features

GENERAL SPECIFICATIONS

| | | |
|------------------------|--|---------------------------------|
| Transmission Line Type | | Coaxial Cable |
| Cable Size | | 1-5/8" |
| Cable Type | | Air Dielectric |
| Model Series | | HCA158-50 Series |
| Connector Interface | | 1-5/8" EIA |
| Connector Type | | Gas stop / pass |
| Sealing Method | | Sealing compound ¹) |
| 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 ≤ 2.7 GHz: 1.06 (30.7) |

MECHANICAL SPECIFICATIONS

| | | |
|--------------------------|---------|---------------|
| Plating Outer/Inner | | Silver/Silver |
| Length | mm (in) | 135 (5.3) |
| Outer Diameter | mm (in) | 89 (3.5) |
| Inner Contact Attachment | | Threaded |
| Outer Contact Attachment | | Tab Flare |

TESTING AND ENVIRONMENTAL

| | | | |
|------------------------------|--------------------------|-----------|------|
| Waterproof Level | | IP66 | IP68 |
| Sealing Volume, cm3 (ounces) | cm ³ (ounces) | 12 (0.40) | |

[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.