



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**

- Easy installation utilizing only basic hand tools.
- Tab flare of outer contact attachment means quick and simple installation.
- No need for sealing compound. The connector is ready for pressurization immediately after installed to the cable.
- Excellent gas tightness. Overpressure for increased voltage handling is maintained throughout the system.
- Outstanding VSWR performance improves overall system performance.
- Totally waterproof, assures safe, long term operation in the harshest of environments.
- RoHS (EU) and CRoHS (China) compliant, can be used on a global basis.



Connector 4-1/2" IEC

**External Document Links**

[Installation instruction for HCA495 / HCA550 / HCA618 \\*-019 connector series](#)

**Notes**

1. The connector is converted to gas pass by drilling through the pilot hole in the insulator.
2. Connector model with -019KT suffix denote connectors that are supplied with an inner connector and flange hardware.
3. Connector model -019 does not include an inner connector and flange hardware.
4. Gas inlet: NPT1/8"
5. Peak power capability: 1560 kW
6. Average power capability (at 40°C ambient temperature): 27.5 kW @ 860 MHz
7. Proof voltage, max.:12.5 kV

**Technical features**

**GENERAL SPECIFICATIONS**

|                        |  |                                   |
|------------------------|--|-----------------------------------|
| Transmission Line Type |  | Coaxial Cable                     |
| Cable Size             |  | 5"                                |
| Cable Type             |  | Air Dielectric                    |
| Model Series           |  | HCA495-50 Series                  |
| Connector Interface    |  | 4-1/2" EIA (50 Ω) per IEC 60339-2 |
| Connector Type         |  | Gas stop / Gas pass - See Note 1. |
| Sealing Method         |  | silicone rubber                   |
| Gender                 |  | Female - See Note 3.              |

**ELECTRICAL SPECIFICATIONS**

|                           |           |                        |
|---------------------------|-----------|------------------------|
| Connector Frequency Range | GHz       | DC - 860MHz            |
| VSWR, Return Loss         | VSWR (dB) | DC - 860MHz: 1.02 (40) |



**MECHANICAL SPECIFICATIONS**

|                        |         |                              |
|------------------------|---------|------------------------------|
| Plating Outer/Inner    |         | silver                       |
| Length                 | mm (in) | 205.9 (8.071)                |
| Outer Diameter         | mm (in) | 176.6 (6.929)                |
| Weight                 | kg (lb) | 10 (22.046)                  |
| Body Material          |         | copper alloy / nickel plated |
| Inner Contact Material |         | copper alloy / silver plated |

**TESTING AND ENVIRONMENTAL**

|                        |         |   |
|------------------------|---------|---|
| Waterproof Level       |         | IP68 (pressure-tight up to 4 bar / 400 kPa) |
| STORAGETEMPERATURECF   | °C (°F) | -70 to 85 ( to )                            |
| OPERATIONTEMPERATURECF | °C(°F)  | -40 to 85 ( to )                            |

