



SUNKYE CONNECTOR D011 Series High Temperature & High Pressure Connectors

HTHP Connectors For Oil & Gas Application Equipment

Sunkye is a global solutions provider of innovative seal solutions and differentiated products to the global oil and gas industry. We serve a wide range of customers including oil and gas producers, original equipment manufacturers (OEMs), and engineering and service companies which utilize our technologies, products, and services for producing oil and gas from land-based and offshore platforms throughout the world.

Sunkye is uniquely qualified to deliver turnkey custom solutions for a complete range of High-Pressure, High-Temperature (HPHT) applications. Our industry-leading materials knowledge, engineering design experience, and testing capabilities are key to achieving reliable service in the most extreme HPHT environments.

Product Introduction

- Part No. D011-01P-232
- Glass Sintering Adapter with Single Contact
- High Temperature Alloy Shell
- Alloy Contact, Ceramic and Glass Insulator



Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, 0.3G²/Hz, acceleration 20G, 200°C.4h on direction X, Y, Z.
- Shock: 490m²/s, 11ms

Electrical Performance

- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current ≤5mA
- Normal Temperature Insulate Resistance: ≥5000MΩ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: ≥500MΩ (500VDC, 200°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +200°C
- Operating Pressure: 0 MPa to 172.5 MPa
- High Temperature Life: 200°C, 600h
- Temperature Shock: -55°C to +200°C, 15 cycles, the temperature switching time is ≤ 15min
- Salt Spray: 24h
- Air Leak: helium leak test ≤ 1×10⁻³Pa.cm³/s
- High Temperature High Pressure: 172.5MPa, 200°C, 336h

Product Introduction

- Part No. D011-01P-497
- Injection Sealed Single Contact Adapter
- Beryllium Bronze Shell and Contact
- PEEK Injection Sealed Insulator



Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, 0.3G²/Hz, acceleration 20G, 175°C.4h on direction X, Y, Z.
- Shock: 490m²/s, 11ms
- Endurance: 500 cycles

Electrical Performance

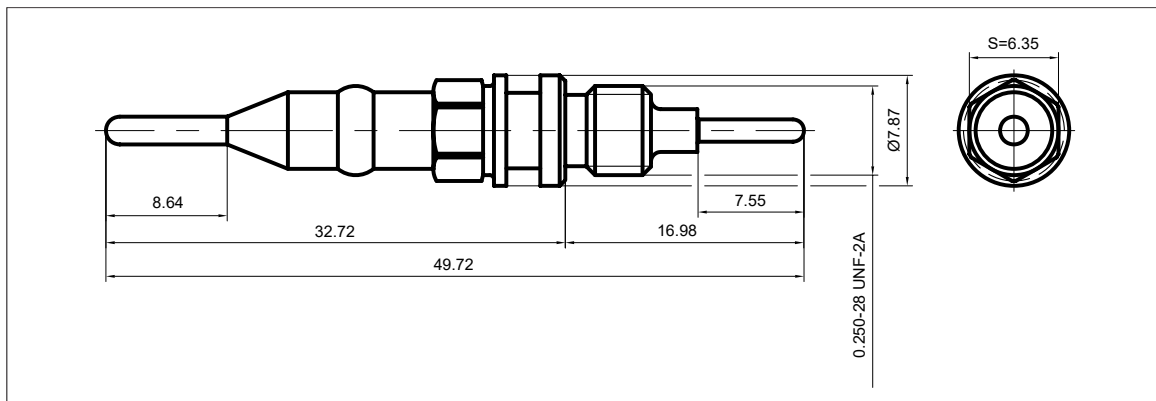
- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current ≤5mA
- Normal Temperature Insulate Resistance: ≥5000MΩ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: ≥500MΩ (500VDC, 175°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +175°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 175°C, 600h
- Temperature Shock: -55°C to +175°C, 15 cycles, the temperature switching time is ≤ 15min
- Salt Spray: 48h
- Air Leak: helium leak test ≤ 1×10⁻³Pa.cm³/s
- High Temperature High Pressure: 140MPa, 175°C, 10h

Outline Dimensions

Dimensions: The contact end is #14 socket, the other end max welding # 16 wire.





Product Introduction

- Part No. D011-01P-627
- Glass Sintering Adapter with Single Contact
- High Temperature Alloy and Fluororubber Shell
- Alloy Contact, Ceramic , Glass and Rubber Insulator



Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, $0.3G^2/Hz$, acceleration 20G, 175°C.4h on direction X, Y, Z.
- Shock: $490m^2/s$, 11ms
- Endurance: 500 cycles

Electrical Performance

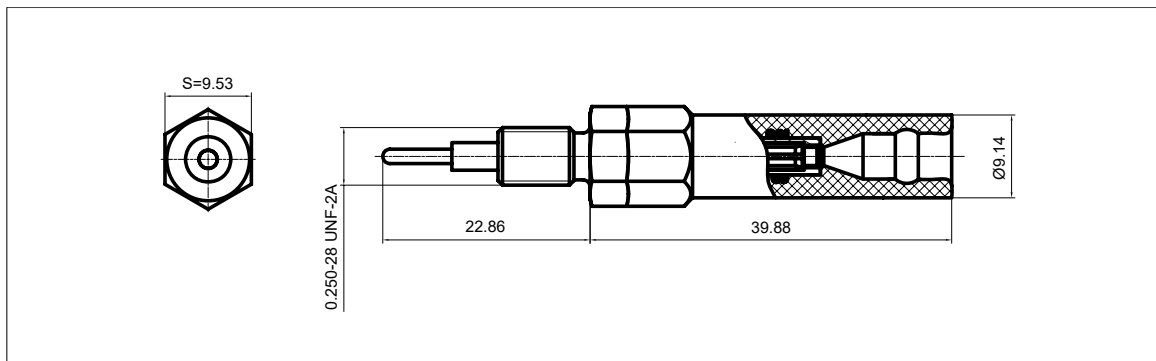
- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current $\leq 5mA$
- Normal Temperature Insulate Resistance: $\geq 5000M\Omega$ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: $\geq 500M\Omega$ (500VDC, 200°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +200°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 200°C, 600h
- Temperature Shock: -55°C to +200°C , 15 cycles, the temperature switching time is $\leq 15min$
- Salt Spray: 48h
- Air Leak: helium leak test $\leq 1 \times 10^{-3} Pa.cm^3/s$
- High Temperature High Pressure: 140MPa, 200°C , 10h

Outline Dimensions

Dimensions: One end is #14 pin, the other end is # 16 socket.



Product Introduction

- Part No. D011-01P-770
- Glass Sintering Adapter with Single Contact
- High Temperature Alloy Shell
- Alloy Contact, Ceramic and Glass Insulator

Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, 0.3G²/Hz, acceleration 20G, 200°C.4h on direction X, Y, Z.
- Shock: 490m²/s, 11ms
- Endurance: 500 cycles

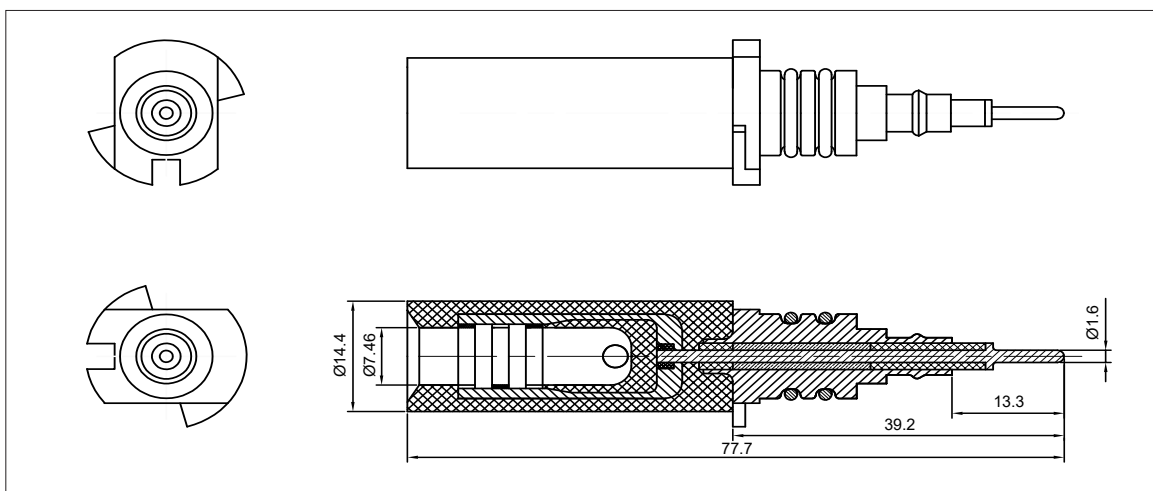
Electrical Performance

- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current ≤5mA
- Normal Temperature Insulate Resistance: ≥5000MΩ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: ≥500MΩ (500VDC, 200°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +200°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 200°C, 600h
- Temperature Shock: -55°C to +200°C , 15 cycles, the temperature switching time is ≤ 15min
- Salt Spray: 48h
- Air Leak: helium leak test ≤ 1×10⁻³Pa.cm³/s
- High Temperature High Pressure: 140MPa, 200°C , 10h

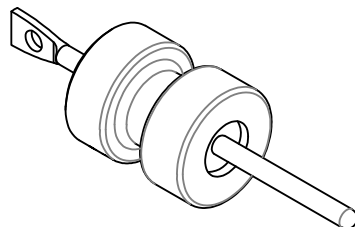
Outline Dimensions





Product Introduction

- Part No. D011-01P-229
- Glass Sintering Adapter with Single Contact
- High Temperature Alloy Shell
- Alloy Contact, Ceramic and Glass Insulator



Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, $0.3G^2/Hz$, acceleration 20G, 200°C.4h on direction X, Y, Z.
- Shock: $490m^2/s$, 11ms
- Endurance: 500 cycles

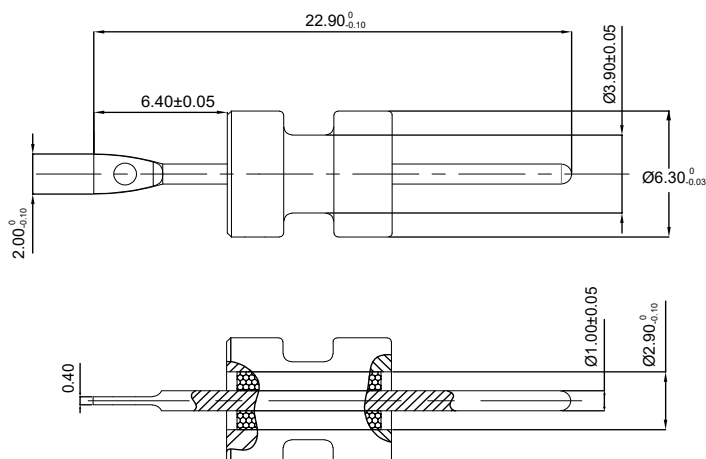
Electrical Performance

- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current $\leq 5mA$
- Normal Temperature Insulate Resistance: $\geq 5000M\Omega$ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: $\geq 500M\Omega$ (500VDC, 200°C)
- Rated Current: 1A continuous current

Environmental Performance

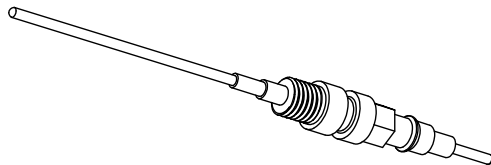
- Temperature Range: -55°C to +200°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 200°C, 600h
- Temperature Shock: -55°C to +200°C, 15 cycles, the temperature switching time is $\leq 15min$
- Salt Spray: 48h
- Air Leak: helium leak test $\leq 1 \times 10^{-3} Pa \cdot cm^3/s$
- High Temperature High Pressure: 140MPa, 200°C, 10h

Outline Dimensions



Product Introduction

- Part No. D011-01P-968
- Injection Sealed Single Contact Adapter
- Beryllium Bronze Shell and Contact
- PEEK Injection Sealed Insulator



Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, 0.3G²/Hz, acceleration 20G, 175°C.4h on direction X, Y, Z.
- Shock: 490m²/s, 11ms
- Endurance: 500 cycles

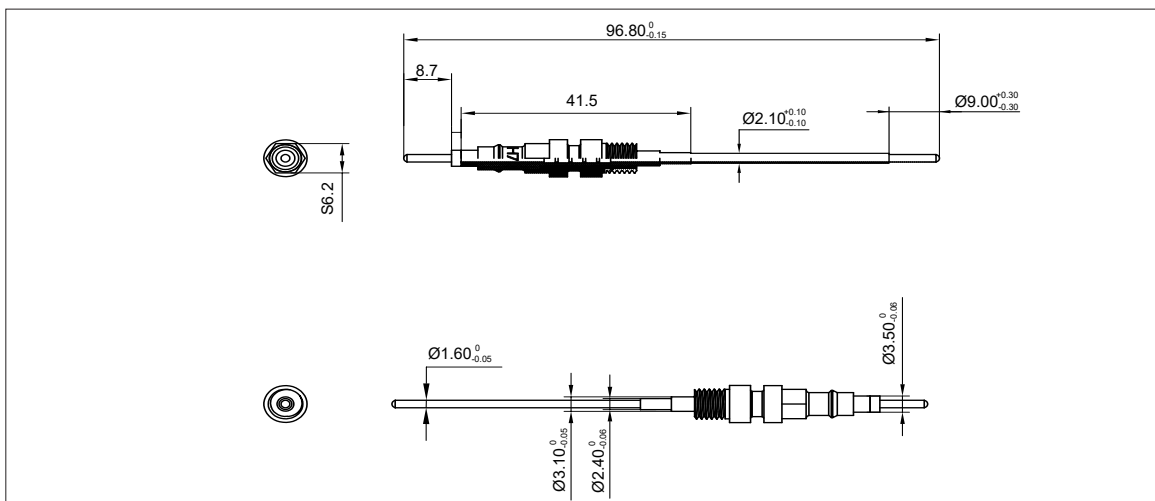
Electrical Performance

- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current ≤5mA
- Normal Temperature Insulate Resistance: ≥5000MΩ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: ≥500MΩ (500VDC, 175°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +175°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 175°C, 600h
- Temperature Shock: -55°C to +175°C, 15 cycles, the temperature switching time is ≤ 15min
- Salt Spray: 48h
- Air Leak: helium leak test ≤ 1×10⁻³Pa.cm³/s
- High Temperature High Pressure: 140MPa, 175°C, 10h

Outline Dimensions





Product Introduction

- ## Technical Characteristics

Mechanical Performance

- ## Electrical Performance

- ## Environmental Performance

- ## Outline Demensions

Technical drawing of a mechanical part, showing a cross-section and a top view.

Top View Dimensions:

- Outer diameter: $\varnothing 14.40$
- Inner diameter: $\varnothing 12.00$
- Inner diameter: $\varnothing 7.46_{-0.06}^{+0.06}$

Cross-section Dimensions:

- Overall length: 77.70
- Length of first section: 6.00
- Length of second section: 20.50
- Length of third section: 24.60
- Length of fourth section: 39.20
- Length of fifth section: 13.30
- Length of sixth section: 1.50
- Final diameter: $\varnothing 1.60$

Product Introduction

- Part No. D011-22P-596
- Glass Sintering FeedThru 22P Connector
- High Temperature Alloy Shell
- Alloy Contact, Ceramic and Glass Insulator

Technical Characteristics

Mechanical Performance

- Random Vibration: 10Hz-2000Hz, 0.3G²/Hz, acceleration 20G, 175°C.4h on direction X, Y, Z.
- Shock: 490m²/s, 11ms
- Endurance: 500 cycles

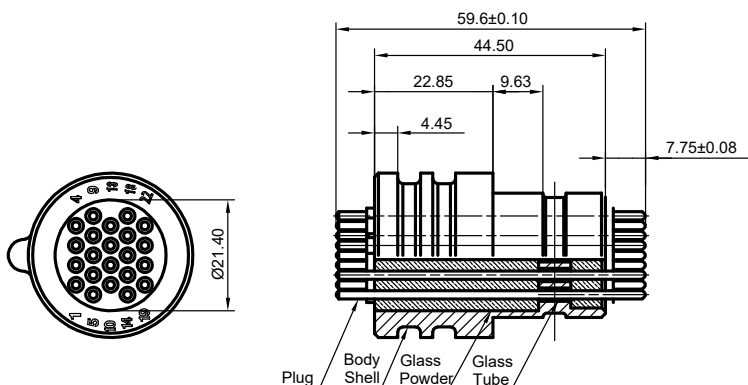
Electrical Performance

- Dielectric Withstanding Voltage: 1000VDC, 60s, leak current ≤5mA
- Normal Temperature Insulate Resistance: ≥5000MΩ (500VDC, normal-tem.)
- High Temperature Insulate Resistance: ≥500MΩ (500VDC, 175°C)
- Rated Current: 1A continuous current

Environmental Performance

- Temperature Range: -55°C to +175°C
- Operating Pressure: 0 MPa to 140 MPa
- High Temperature Life: 175°C, 600h
- Temperature Shock: -55°C to +175°C, 15 cycles, the temperature switching time is ≤ 15min
- Salt Spray: 48h
- Air Leak: helium leak test ≤ 1×10⁻³Pa.cm³/s
- High Temperature High Pressure: 140MPa, 175°C, 10h

Outline Dimensions





Materials Expertise Second to None

- In-house materials research and development capabilities for elastomers, plastics, and metal
- Extensive experience with a wide range of materials and products to provide optimal solutions
- Fully equipped labs enable complete pre-production material and process validation

Rigorous Analysis and Testing

- Finite Element Analysis (FEA) to support qualified HPHT solutions
- In-house testing capabilities for extreme pressures and temperatures and chemical compatibility and rapid gas decompression testing to meet industry standards

Custom-Engineered Solutions

- Experienced design and applications engineering staff works directly with customers from concept to delivery
- Comprehensive seal system designs that deliver high-performance and ease of installation
- Sealing system designs combine various seal geometries with specially developed HPHT materials
- Robust sealing systems for pressures exceeding 30,000 psi and temperatures in excess of 300°C
- Only seal solution provider able to offer elastomeric, thermoplastic, metal to metal and high integrity connector
- CMM dimensional verification with Real time data collection plus remote monitoring & Logs of temperature and pressure profiles during the testing