AVALANCHE

THRESHER

50 KV HIGH-VOLTAGE VACUUM FEEDTHROUGH

Compact, fully shielded, single-conductor feedthrough for UHV systems



Product class: High-voltage vacuum power feedthrough
Mount: 1.33" ConFlat (DN16CF)
Configuration: Fully shielded single conductor

Rated voltage: 50 kV DC
Part number: 000-4710-001

Voltage rating	Vacuum interface	Architecture
50 KV DC	**1.33" CONFLAT (DN16CF)**	**FULLY SHIELDED, SINGLE CONDUCTOR**

01. PRODUCT OVERVIEW

Thresher is a compact 50 kV high-voltage vacuum feedthrough designed for UHV-compatible systems requiring a shielded single-conductor interface across an 1.33 in CF flange.

KEY FEATURES

- 50 kV DC product class (unique on the market)
- Fully shielded high-voltage geometry
- Single-conductor design (can be customized to 3 conductors)
- Ultra-high-vacuum (UHV)-compatible ceramic-to-metal sealed assembly
- Application guide (Conditioning and baking instructions)
- Standard Detachable Flat Connector Included

APPLICATIONS

- Semiconductor processing and inspection equipment
- Electron-beam and ion-beam systems
- Ion source and extraction assemblies
- X-ray source platforms
- Plasma processing and fusion research
- Pulsed-power and high-voltage switching systems
- High-voltage vacuum test chambers

02. TECHNICAL PERFORMANCE SPECIFICATION

PARAMETER	SPECIFICATION
Voltage rating	50 kV DC rated maximum voltage. Polarity: can be negative or positive
Current rating	2 A continuous
Mount style and size	1.33" ConFlat (DN16CF), 304 stainless steel
Cable connection style	A fully shielded, detachable flat connector
Center conductor	316 Stainess Steel, diameter: 0.1 in / 0.25 cm
Conductor, housing, and dielectric materials	Housing / flange: stainless steel 304 Insulator: MACOR
Operating temperature range	−50 °C to 120 °C
Leak rate	Helium leak rate: less than 1×10^{-9} atm·cc/s
Ultimate pressure	10^{-9} Torr (10^{-7} Pa)
Dimensions	Diameter: 3.4 cm / 1.33 in Length (excluding cable): 12.7 cm / 5 in Cable length: 6 m / 20 ft (custom length available on request)