AVALANCHE

BIGEYE

100 KV HIGH-VOLTAGE VACUUM FEEDTHROUGH

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



Product class: High-voltage vacuum power feedthrough
Mount: 2.75" ConFlat (DN35CF - DN40CF)
Configuration: Fully shielded single conductor

Rated voltage: 100 kV DC
Part number: 000-2865-002

Voltage rating	Vacuum interface	Architecture
100 KV DC	**2.75" CONFLAT (DN35CF - DN40CF)**	**FULLY SHIELDED, SINGLE CONDUCTOR**

01. PRODUCT OVERVIEW

Bigeye is a compact 100 kV high-voltage vacuum feedthrough designed for UHV-compatible systems requiring a shielded single-conductor interface across an 2.75 in CF flange.

KEY FEATURES

- 100 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 ion implantation systems
- Electron-beam welding and processing
- High-voltage electron and ion sources
- Particle accelerators and beamlines
- X-ray generation and imaging systems
- Fusion and plasma systems
- Pulsed-power and high-voltage switching systems
- High-voltage dielectric test chambers

02. TECHNICAL PERFORMANCE SPECIFICATION

PARAMETER	SPECIFICATION
Voltage rating	100 kV DC rated maximum voltage. Polarity: can be negative or positive
Current rating	6 A continuous
Mount style and size	2.75" ConFlat (DN35CF - DN40CF), 304 stainless steel
Cable connection style	A fully shielded, detachable flat connector
Center conductor	316 Stainess Steel, diameter: 0.3 in / 0.76 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: 7 cm / 2.75 in Length (excluding cable): 27 cm / 10.5 in Cable length: 6 m / 20 ft (custom length available on request)