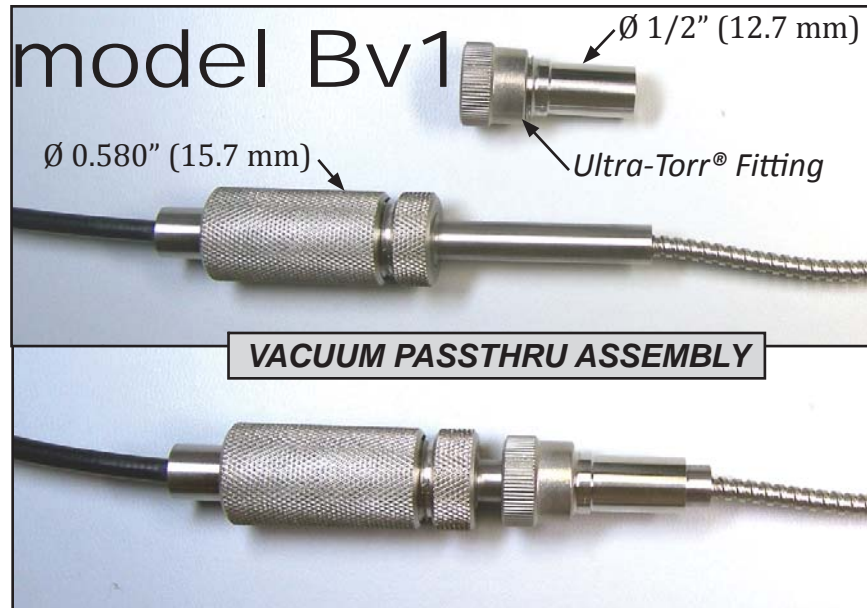


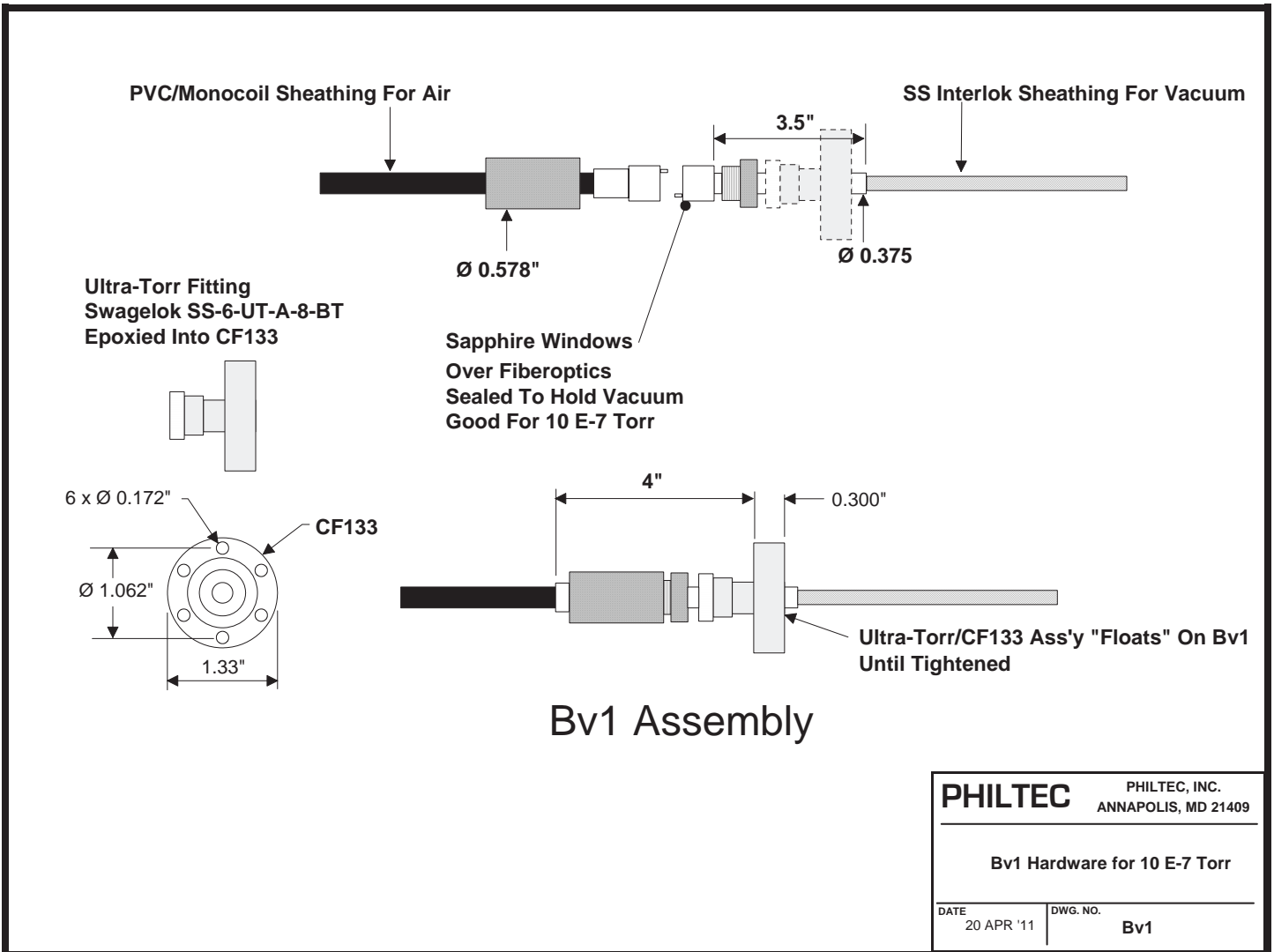
Single Channel Vacuum Passthru for  $10^{-7}$  Torr**FEATURES**

- Vacuum Range to  $10^{-7}$  Torr
- Sapphire Windows at Connector Interface
- Mounting by Swagelok Ultra-Torr® Fitting or 1.33" Mini CF Flange
  - Works with most Philtec D and RC Model Sensors\*

\* not available for models D6, D12 and RC12

**PHILTEC**[www.philtec.com](http://www.philtec.com)

Fiberoptic Sensors for the Measurement of Distance, Displacement and Vibration



## Description

**Model Bv1** provides a connectorized sensor cable with:

- Window sealed fiberoptics for operation in a vacuum chamber
- Swagelok Ultra-Torr fitting for bulkhead mounting

**Model Bv133** includes a 1.33" Mini-CF Flange for bulkhead mounting

## Operating Principle

Philtec's fiberoptic sensors are comprised of many fibers. The smallest probes have dozens of fibers, the largest have several thousand. These fiber bundles can not be sealed to hold high vacuum.



In the Bv1 and Bv133 vacuum passthru, the sensor's transmitting and receiving light guides are separated at a connector interface. This eliminates all crosstalk between channels, thereby allowing the sensor light signals to be accurately transferred from air to vacuum environments. Sapphire windows are epoxied into the connector end on the vacuum side, sealing the fiberoptics in the vacuum.

Swagelok's Ultra-Torr<sup>®</sup> fittings are designed to provide a vacuum-tight seal with quick, finger-tight assembly and reuseability. A Viton O-Ring is wetted with a thin film of silicone vacuum grease. Ultra-Torr fittings are consistently helium leak-tested to a rate of  $4.0 \times 10^{-9}$  atm. c.c./sec. without leakage.