Multi-Channel Vacuum Passthru Assembly

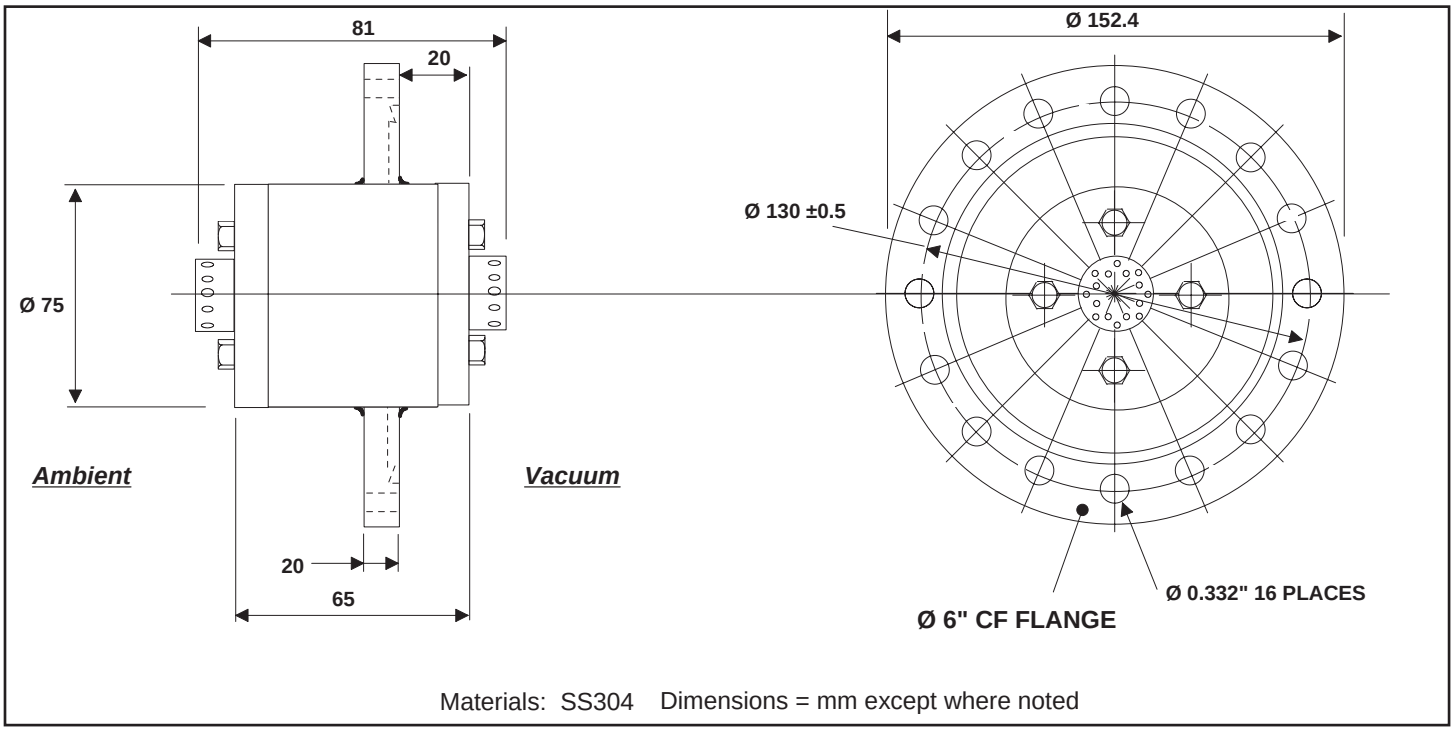
model BvF-CF

FEATURES

- Operation To 10^{-7} Torr
- Mounting by Ø 6” CF Flange
- Solid Fiberoptic Glass Rod Passthru Element
- Ultra-Torr Compression Fitting Seals Against Vacuum
- Accepts Up To 8 Philtec D Model Sensors or 5 RC Model Sensors*

* Consult the factory for the larger sensor models, as there may be some limitation caused by combinations of sheathing materials and end ferrule collar diameters.

Multi-Channel Vacuum Passthru BvF-CF



Materials: SS304 Dimensions = mm except where noted

Description

The BvF-CF is an assembly comprising:

- Ø 6” CF Mounting Flange
- Swagelock® Ultra-Torr Compression Fitting
- Ø 25 mm x 50 mm L Fused Fiberoptic Passthru Rod
- Precision Ground End Caps with 16 Ports for Sensor Fiberoptics

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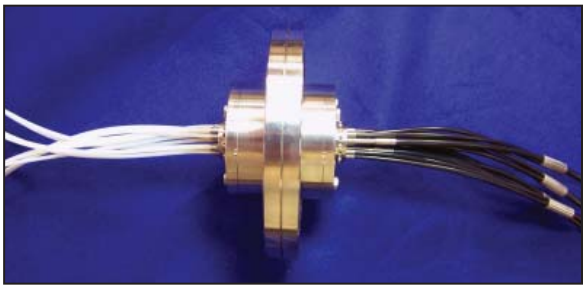
Multi-Channel Vacuum Passthru **BvF-CF**

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.

A sensor system with Option BvF-CF includes:

- Light guides with sensing tips for installation in the vacuum chamber
- The BvF-CF Assembly
- Amplifiers and fiberoptic cables for external connection to the passthru assembly.



In the BvF vacuum passthru, a Ø 25 mm fused fiber-optic glass rod is used to pass the sensor's light signals thru a vacuum chamber bulkhead. The fused fiber element is a solid glass rod manufactured from fibers that are drawn together with heat and pressure. The rod contains no impurities or voids, is blemish free, and transfers images with zero rotation and distortion, allowing the sensor light signals to be accurately transferred from ambient to vacuum environments.

A Swagelok Ultra-Torr® compression fitting, welded to the center of the BvF, is used to hold the vacuum. This fitting uses a Viton O-ring in compression to seal to 10^{-7} Torr.

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