

AMPTEK Inc.

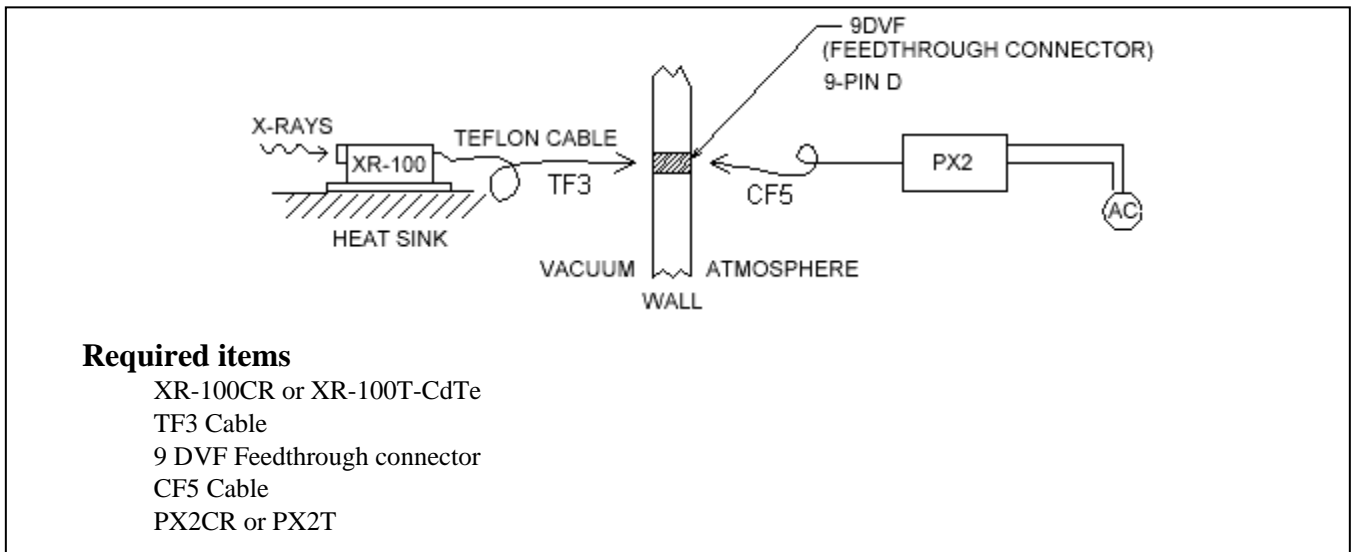
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Vacuum Operation

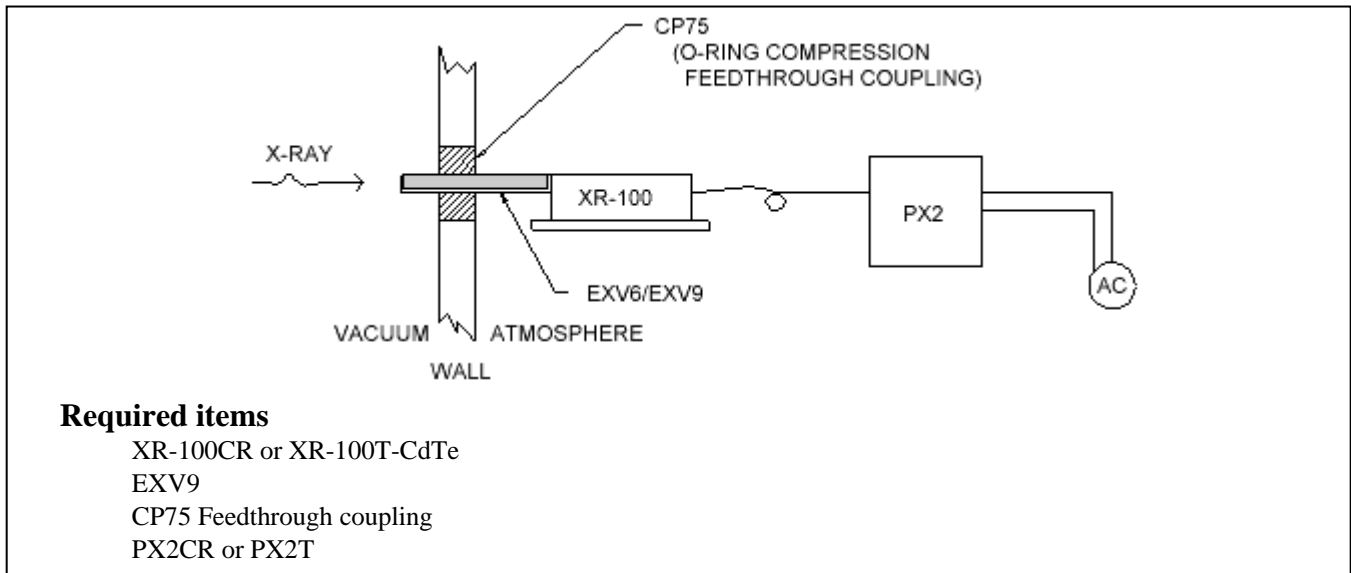
The XR-100 can be operated in air or in vacuum down to 10^{-8} Torr. There are two ways the XR-100 can be operated in vacuum: 1) The entire XR-100 detector and preamplifier box can be placed inside the chamber. In order to avoid overheating and dissipate the 1 Watt of power needed to operate the XR-100, good heat conduction to the chamber walls should be provided by using the four mounting holes. An optional Model 9DVF 9-Pin D vacuum feedthrough connector on a Conflat is available to connect the XR-100 to the PX2 outside the vacuum chamber. 2) The XR-100 can be located outside the vacuum chamber to detect X-Rays inside the chamber through a standard Conflat compression O-ring port. Optional Model EXV9 (9 inch) vacuum detector extender is available for this application. See photograph of XR-100 with extender and Conflat.

Both Option A & B for vacuum chamber pressures up to 10^{-8} torr

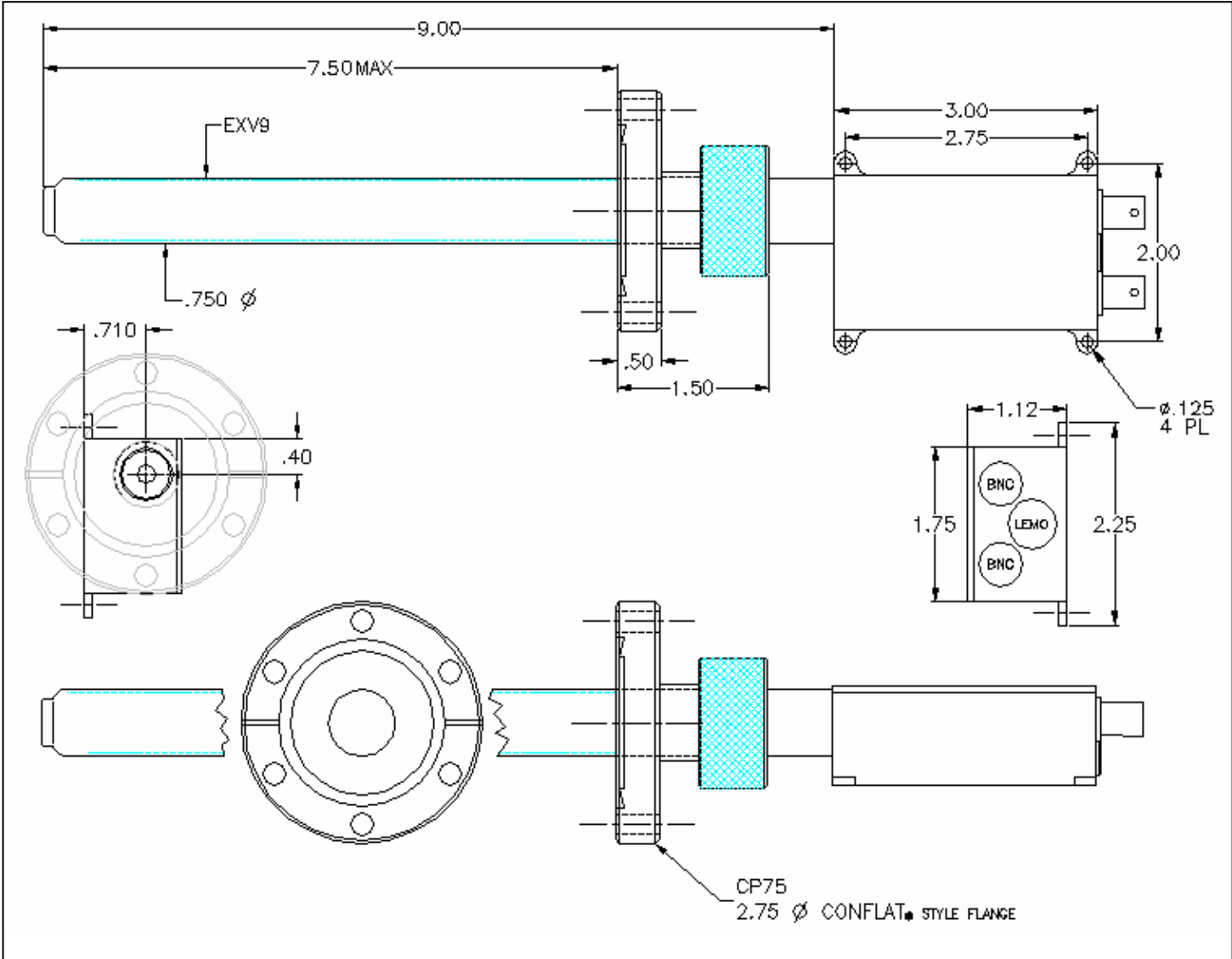
OPTION A



OPTION B



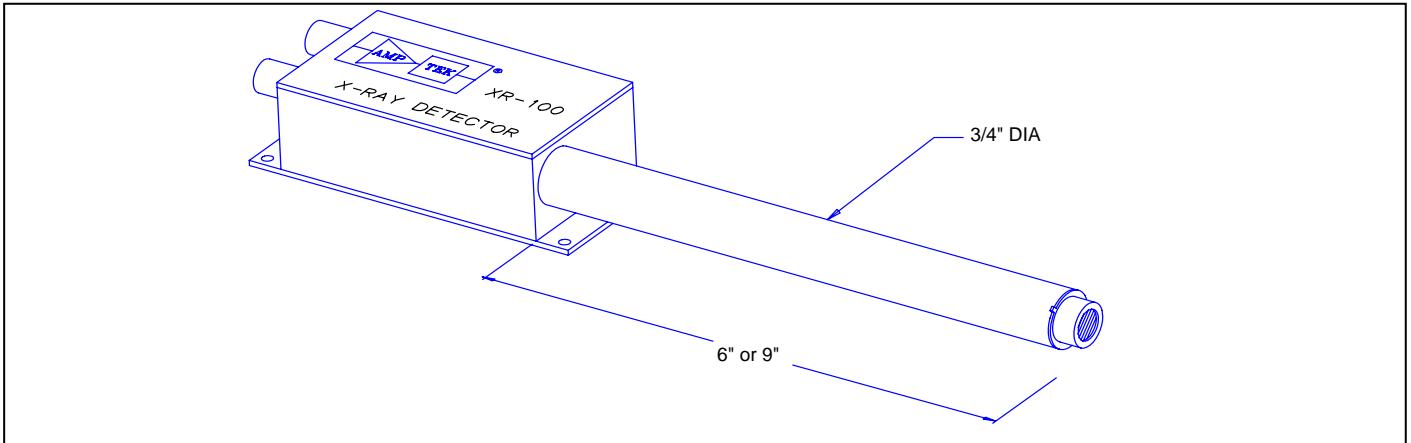
Option B Mechanical Dimensions



VACUUM APPLICATION ACCESSORIES

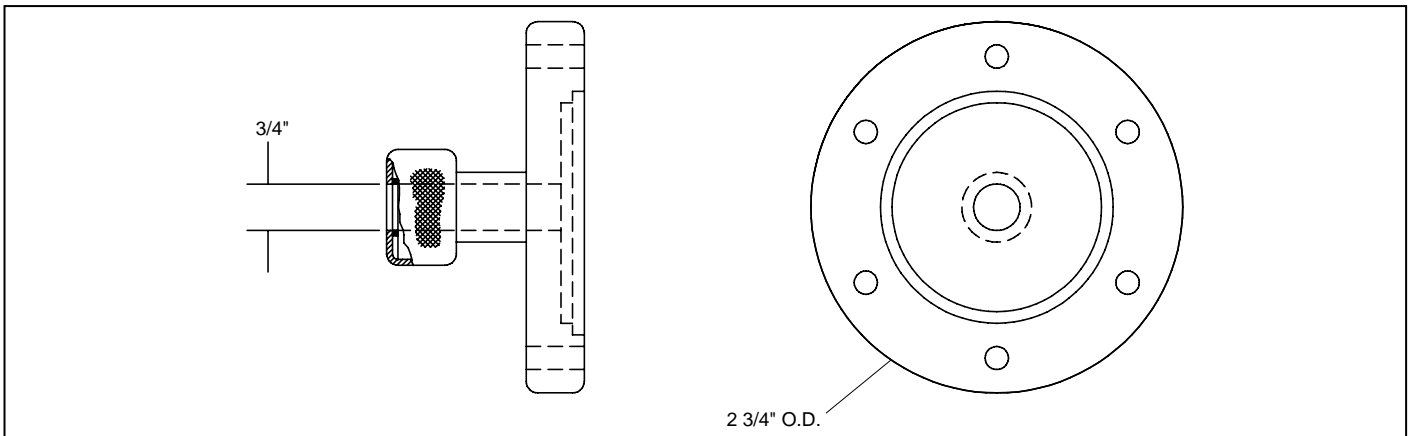
Model EXV9

9 Inch Detector Vacuum Extension for the XR-100CR or XR-100T-CdTe



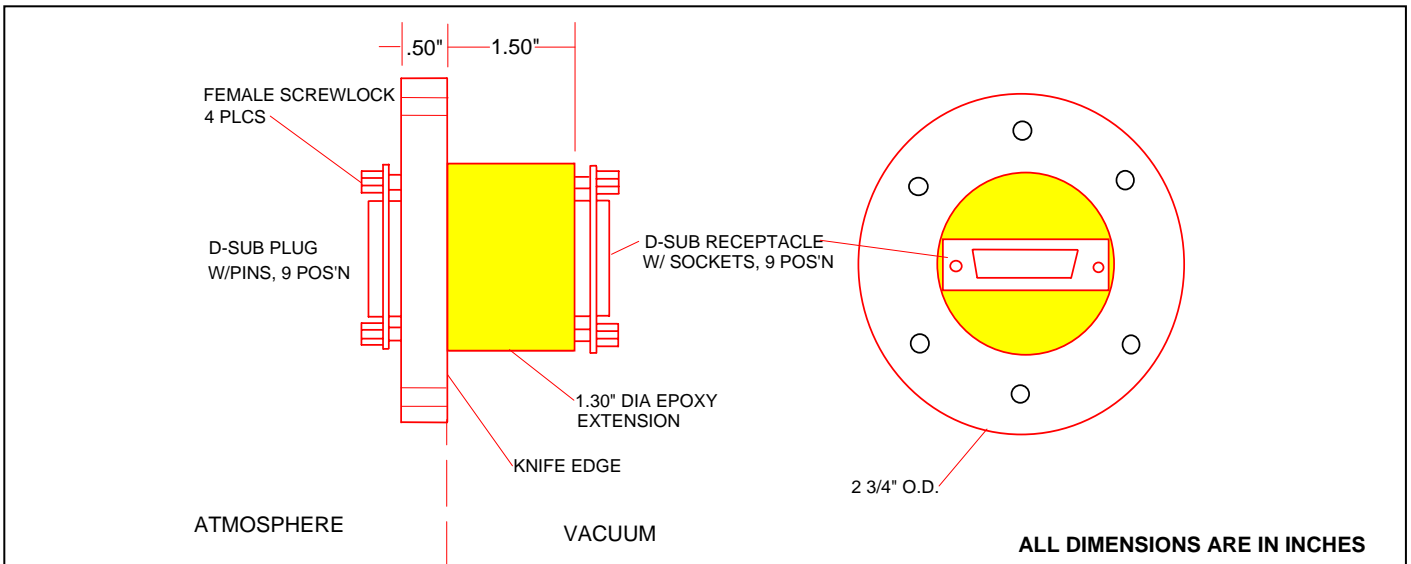
Model CP75

Vacuum Feed Through Coupling on 2 3/4 Inch S.S. Conflat for use with EXV9

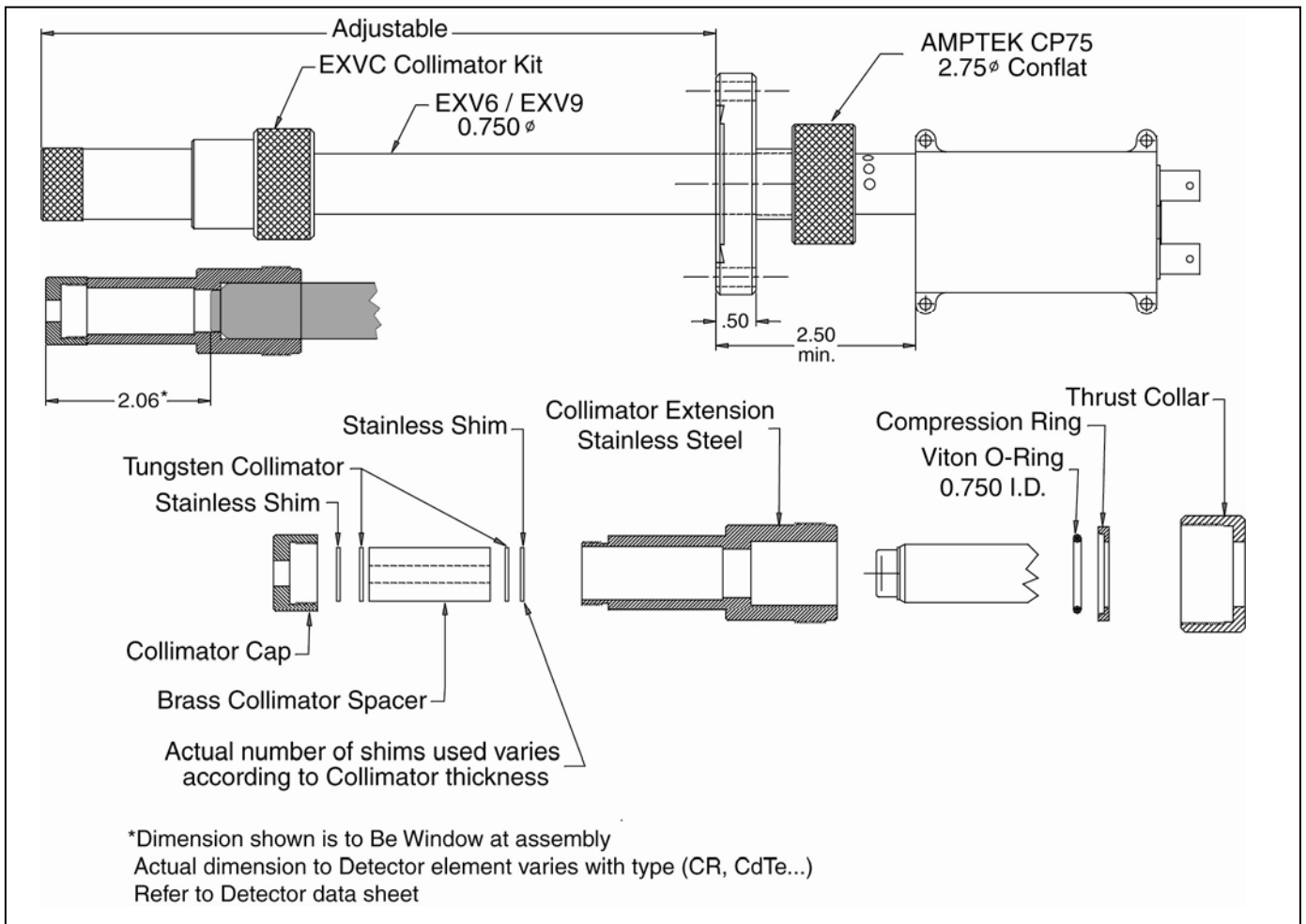


Model 9DVF

9 Pin D-Subminiature Vacuum Feedthrough Connector mounted on a standard 2 3/4 inch S.S. Conflat



EXVC COLLIMATOR KIT FOR THE EXV9



The EXVC - Collimator Kit Includes

Stainless steel collimator housing

Brass Spacer

Tripod and mounting plate (included when ordering for use with standard 1.5 inch extender box)

Laser pointer

7 Tungsten (W) Collimator disks:

- 1 mm thick with 25 µm hole
- 1 mm thick with 50 µm hole
- 2 mm thick with 100 µm hole
- 2 mm thick with 200 µm hole
- 2 mm thick with 400 µm hole
- 2 mm thick with 1000 µm hole
- 2 mm thick with 2000 µm hole

Optional: EXVC-W-SPACER

This Tungsten (W) Spacer /Collimator is 35 mm thick with a 350 µm hole. It is designed to stop and collimate x-rays greater than 100 keV produced from high energy tubes.

All Tungsten disks are made of alloy HD17 (90% W, 6% Ni, 4% Cu).

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