



## DETECTORS

# U-Style™

Cryostats

## DESCRIPTION

Mirion U-Style cryostats have a vertically-oriented detector chamber located at the end of a horizontal arm extending from the side of the Dewar or cooler.

This configuration excludes the preamplifier and other hardware from the inner cavity of the lead shield and eliminates all line-of-sight streaming paths to the detector element. These features contribute significantly to the overall background reduction of the counting system.

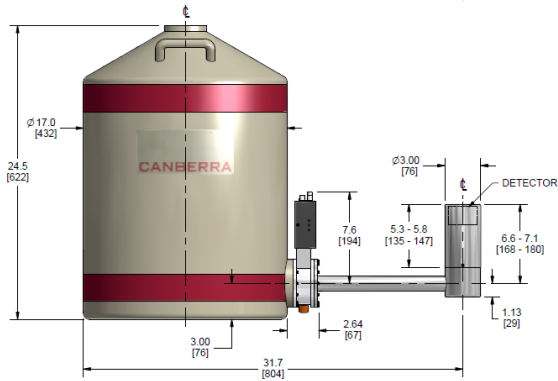
The U-Style configuration has a lower center of gravity for the detector and shield as compared to a standard vertical configuration which may make it attractive for mobile applications as in trailer- or ISO container-based counting facilities. Additionally the U-style configuration allows installing the detector in systems where there is no room under the shield to place the Dewar or cooler.

The standard length of the horizontal arm is 12 in. (305 mm) measured from the flange of the preamplifier service body to the detector center line. This length makes the U-style cryostat compatible with both 4 in. (102 mm) and 6 in. (152 mm) thick Mirion lead shields.

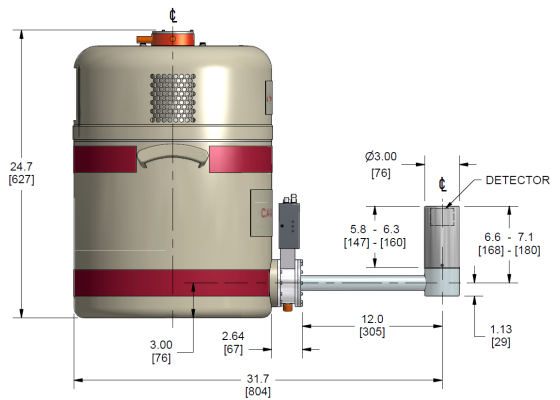
The standard configuration comes with a radial O-ring seal. A metal face seal is available as an option on detectors with a 3.0 in. (76 mm) diameter endcaps only. Metal seals are more rugged and, in general, provide a longer life time of the detector vacuum.

End cap dimensions depend on detector size. The chart below shows the typical efficiency range vs. end-cap diameter. End cap lengths are also greater for larger detectors. Consult the factory if end-cap size is critical in your application.

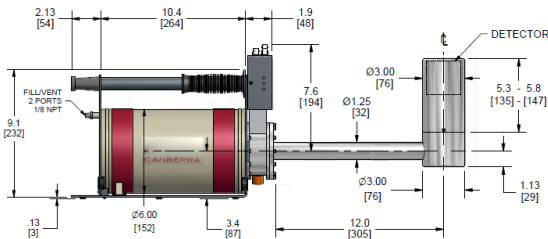
Rel. Efficiency (%)	Diameter in. (mm)
≤40	3.0 (76)
40-50	3.25 (83)
50-70	3.50 (89)
70-100	3.75 (95)
≥100	4.0 (102)



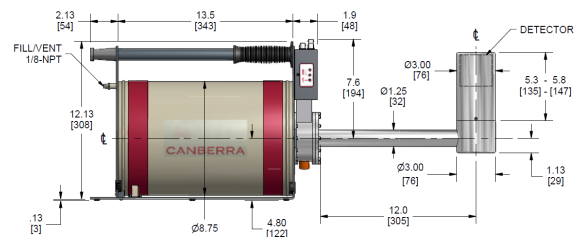
7905-30U Horizontal Integral Cryostat  
(also available in 7.5 and 15 liter version)



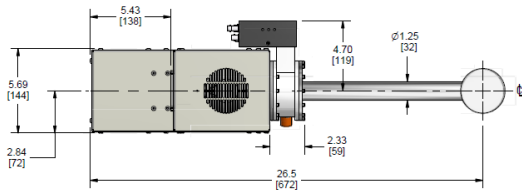
CCII-HI-U Horizontal Integral Hybrid Cryostat



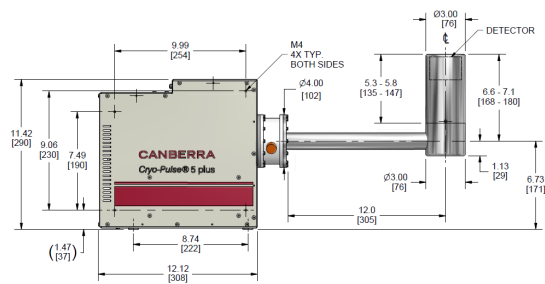
7935-2U Portable Multi-Attitude Cryostat (2 liter MAC)



7935-7U Portable Multi-Attitude Cryostat (7 liter Big MAC)



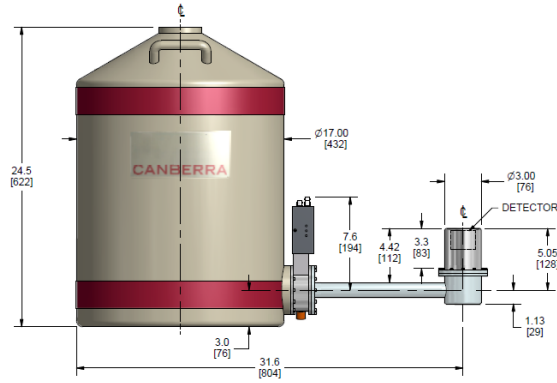
CP5-PLUS-U Electrically-Cooled Cryostat  
(top view – preamplifier can be oriented in other directions upon request)



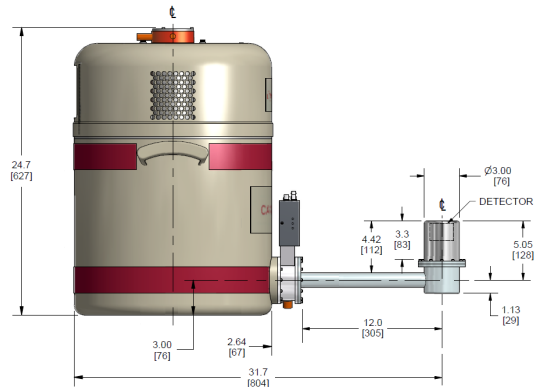
CP5-PLUS-U Electrically-Cooled Cryostat (side view)

# U-Style | CRYOSTATS

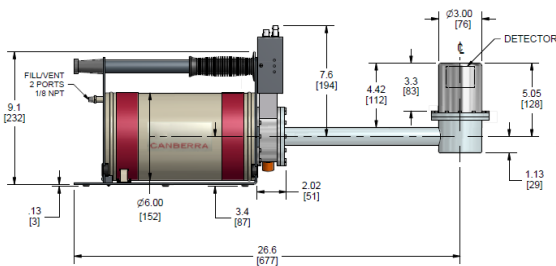
Metal Seal U-Style Cryostats  
(available on 3 in. (76 mm) diameter endcaps only)



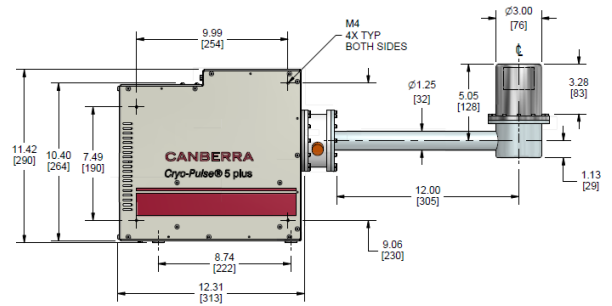
7905-30UM Horizontal Integral Cryostat  
(also available in 7.5 and 15 liter version)



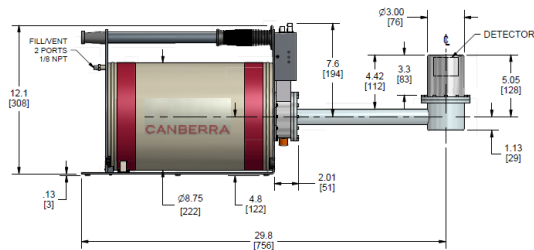
CCII-HI-UM Horizontal Integral Hybrid Cryostat



7935-2UM Portable Multi-Attitude Cryostat (2 liter MAC)



CP5-PLUS-UM Electrically-Cooled Cryostat (side view)



7935-7UM Portable Multi-Attitude Cryostat (7 liter Big MAC)

