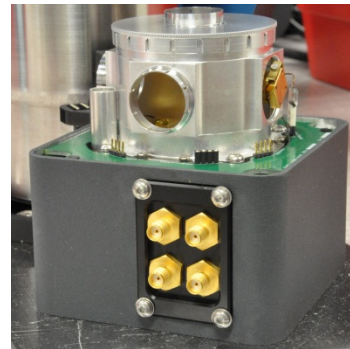


Often users want to interface external inputs to their samples. The standard **Cryostation** system includes 29 electrical connections, intended for low frequency and low power applications. Custom interfacing can be done through the optical ports. Montana Instruments offers standard interfaces for fiber optic or RF (coax) through user mountable assemblies that mount in the optical ports. The disadvantage of these is that the internal “wiring” can complicate removing the outer and inner window housings to access your samples.

Montana Instruments also provides a **side plate option** on the sample housing base, the part of the housing that is mounted to the table. This option must be requested when the system is originally ordered. This can be used for any number of interfaces, and the vacuum can be preserved.

The current options for the plate are:

- Gas tube 1/8”
- Four SMA connectors
- Blank for user customization



The blank plate can be used to interface special user connections. This is a good place for RF connections, and also gas tube. The gas tube may be connected directly to a user chamber within the cold space, or may be used to “leak” some molecules onto the sample itself.

Note that anything brought in through this side panel must be thermally lagged before entering the inner cold space to maintain low temperature performance. This is typically done as the connection is routed under the radiation shield at its connection to the intermediate stage. This is especially important for any metallic conductor, including coax wires and tubes. The user must be careful when routing up through the base, as there are other features in that space. The image at the right shows a gas tube as it comes out of the base area, being lagged before it spirals around. This spiral will be inside the radiation shield, and can be terminated by the user as their application requires.

