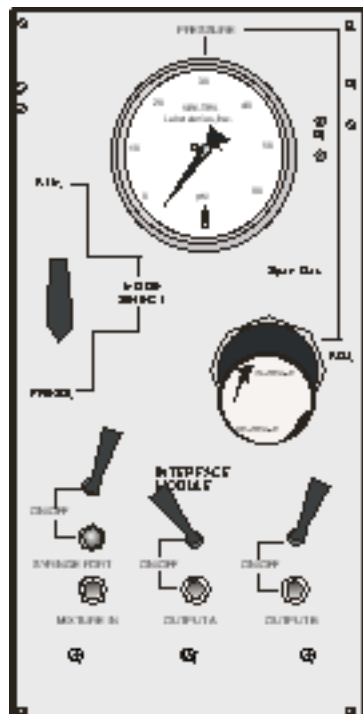


491M Interface Module

DESCRIPTION

Many of the problems encountered in calibrating gas analyzers can be traced to improper techniques for introducing span gas to the analyzer. The problem is compounded when using permeation tubes due to flow requirements and lack of operator interfacing experience.



The **491M Interface Module** is an integrated set of tools for solving interfacing problems associated with a wide range of applications.

Most applications require a fixed input flow rate delivered at a fixed pressure. The **491M-IM** contains interface components needed to assure constant analyzer input conditions independent of variations in flow from the **491M** permeation system.

When an analytical instrument uses an internal (or downstream) pump for sample introduction, as in ambient air analyzers, the mode select valve of the **491M-IM** is set to the “atmospheric” position to allow constant sampling conditions. However, if a sample is normally forced into the system (eg. a GC with a gas sample valve), then the valve is set to the positive “pressure” position and the internal manifold pressure is adjusted using the backpressure control knob and pressure gauge.

PRIMARY DESIGN

The design of the **491M-IM** allows span gas mixture to enter one end of the internal bypass manifold, and depending on analyzer input requirements, provides user control of span gas delivery pressure.

Two outlet ports along the manifold, each with a toggle valve shut off, direct outputs so that the span mixture can be used simultaneously in two separate applications. A third outlet septum is a syringe port from which samples can be drawn into a gas tight syringe. The manifold contains about 100 cc of internal volume which serves as a surge volume.

Overall, the **491M-IM** is ideal for applications where flow capacity of end use is limited (eg. filling gas bags), or for when back pressure is required to introduce the sample to the analyzer.

