

TELEDYNE HASTINGS

INSTRUMENTS

APPLICATION NOTES

Goal: Atmospheric Air Sampling

Solution: Hastings HFC-302 Flow Controller



One of the nation's leading institutes for environmental and atmospheric sciences uses Hastings' HFC-302 Flow Controller for a unique application. The institute selected the HFC-302 to take constant air samples while the flow controller was mounted to an airplane at an altitude of 24,200 feet. It was chosen specifically for its abilities to operate under these conditions.

In most applications of this type, the upstream pressure (above atmosphere) is greater than that of the downstream. In this particular case, however, the necessary differential is induced by a state of vacuum where downstream pressure is actually at a lower vacuum than the pressure of the upstream. The HFC-302 easily accommodates the institute's testing requirements. It is designed to accurately measure mass flow without correction or compensation for gas pressure or temperature, as well as to operate in a wide range vacuum, 760Torr to 260Torr.

HFC-302 Flow Controller features:

- $\pm 0.75\%$ of Full-Scale Accuracy @ 3 Sigma
- 0.75 sec settling time