

# Micro-Flow Sensors

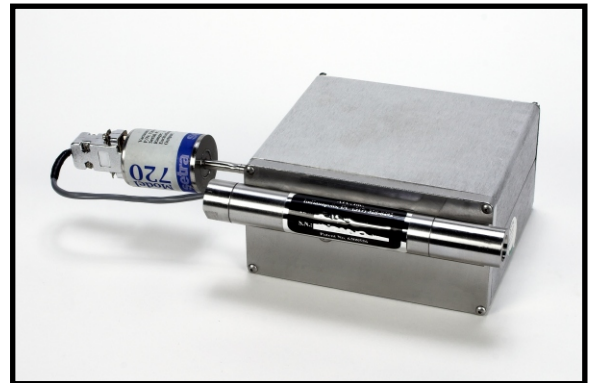
## MODEL: IMFS

### Product Applications

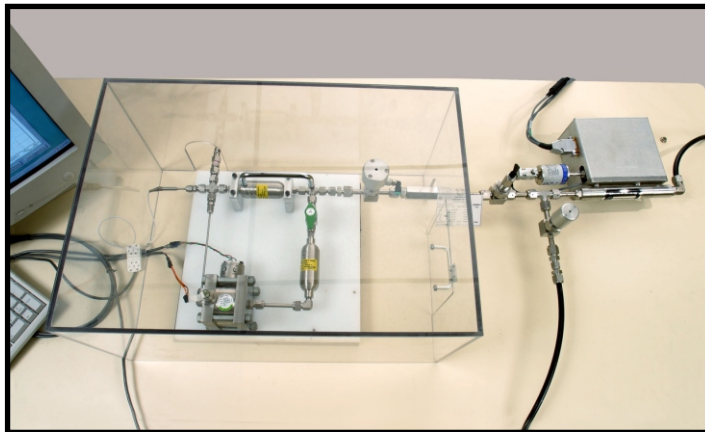
- Mass Extraction at vacuum under 0.2 psia (hard vacuum)
- Leak Detection of 0.1 to 0.2 micron defects
- AIR Measurements from  $5 \times 10^{-7}$  sccs
- Intelligent Molecular Flow Sensor - operates mostly in transitional and molecular flow regimes
- Outgassing / Premeability application
- Calibration of leak devices

### Product Features

- Intelligent Molecular Flow Sensor - Operates mostly in transitional and molecular flow regimes
- Measures MASS Flow, using ATC's patented ALF design
- Measures hard vacuum to 15 psia
- Rugged, stainless steel construction
- No moving parts



NOTE: The IGLS is a part of ATC's complete leak test instruments, portable unit, or part of a larger automated test system. The micro-flow sensor is not available by itself.



# Micro-Flow Sensors

## MODEL: IMFS

### FLOW RANGE

0-1;0-2.5;0-5;0-10;0-100;0-400 micrograms/min  
Measurement uncertainty: +/- 5 % (2% optional) of reading, calibrated range

### PRESSURE RANGE

0-0.2 or 0-15 (psi-absolute)  
Type: Absolute, capacitance  
Measurement uncertainty: 0.25% of FS

### TEMPERATURE RANGE

Operating and Calibrated: 10 to 45 °C  
Storage: -25 to 50 °C  
Sensor Type: RTD 100 Ohms  
Measurement uncertainty at calibrated range: 0.5 °C

### RESOLUTION

16 bits A/D and 16 bits D/A

### INTERFACE

Serial port  
Digital I/O: Start/Stop, type clamp and more...  
Analog I/O  
Power: 115 or 220 VAC, single phase  
Optional: 2-line character display

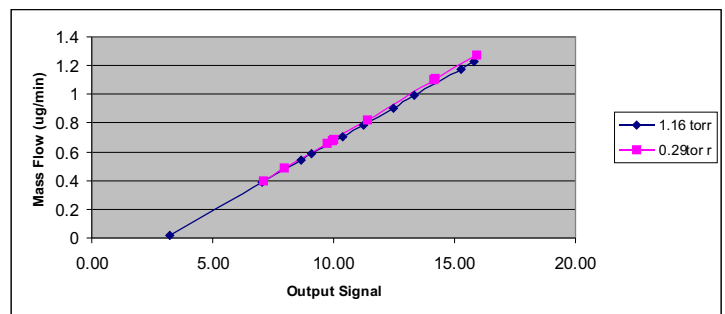
### MAX DIFFERENTIAL PRESSURE

0.02 psid

### GASES USED

Use dry non-condensing and clean gases  
Air, Nitrogen, Helium, Argon, & Carbon Dioxide  
Other Gases Available, consult ATC.

**Transitional/Molecular Flow-IMFS2 mass flow vs. Output Signal**  
**Note: 0.05 micro-gram/min N2 = 6.9 e<sup>-7</sup> atm-cc/sec @ 20 °C**



**The COMPLETE Solution For Your Most Challenging Automatic Leak Flow Testing**