RHEOTHERM®
FLOW INSTRUMENTS

Rheovec™ Sensor Heads

• Measure true gas mass flow in ducts and pipes
• Obtain accurate velocity profiles in highly turbulent and swirling flow streams
• Reliably measure flow at lower cost than averaging arrays

The problem:
Flow rates in large air and gas ducts are notoriously difficult to reliably measure, particularly when there is limited room upstream for adequate straight-run or flow conditioning. Single point measurements can be noisy and inaccurate. Averaging multiple point measurements may help, but can be costly.

The solution:
Intek Inc.’s answer combines reliable Rheotherm flow metering technology with the unique Rheovec™ sensor head to improve repeatability and accuracy in difficult duct flows. The Rheovec head enables extraction of the actual velocity transport vector to give a more accurate reading of the total mass or volume flow rate.

An additional option:
If desired, the probes can be ordered with an adjustable insertion depth. During initial use, flow rate readings at multiple insertion depths can be obtained and averaged, allowing the user to determine a final installation depth that provides a reading close to the average flow in the duct.

How It works:
The measurement is made using the time-tested technology of Rheotherm thermal flow meters. The Rheovec sensor head is used on an insertion probe when the installation involves a duct that has little or no straight-run or flow straightening. The Rheovec head features a unique honeycomb structure around the probe tips that eliminates inaccuracies due to the off-axis velocities in the poorly conditioned flow stream. This allows more accurate measurement of the actual gas transport in the duct.

Other sensor details:
• Line sizes: 4” and larger
• Line connection: 4” flange (plate flange for low pressure or a higher pressure rated flange.)
• Service: air and most other gases
• Wetted surface: stainless steel (other materials available)
• Hazardous service options: Yes. See Bulletin #FM.

For assistance with any flow application, contact an application engineer at INTEK, the leader in precision thermal flow metering. Call 888-LOW FLOW (569-3569).

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