

# Metering Stations with Electronic Transducer



#### **Metering Station Valve Features:**

- Significantly less cost than an ultrasonic flow meter
- +/-1% machined accuracy of venturi
- Can be installed at elbows or valves no straight pipe length required before or after
- No installation limitations or rules
- Simple venturi design = no moving parts & no maintenance
- Threaded connections: 1/2" to 2"
- Flange, weld or groove connections: 2-1/2" to 18"
- Compatible with water, glycol and other fluids
- Compact length, typically 1.7 to 2.5 pipe diameters long

Absolute Control. Optimized Efficiency.

#### Where is all My Water Going?

Flow Metering is becoming more and more important as building owners try to monitor where the water/flow is going in a building. Some building owners have projects that measure flow at each point in the building in the attempt to figure out where their flow is going because they have no idea! Other building owners use flow metering to optimize systems and save energy. Griswold Controls valves can be permanently installed on main lines or at every coil to allow for flow measuring when required OR constant flow measuring with the optional flow transducer. USGBC now requires flow measurement for its LEED certified buildings. Just another reason to install Metering Stations.

### Where is YOUR water going? We CAN help!

Back	Metering Station
nformati	on
T1	37.99
T2	48.09
Δ Τ:	10.10
P1	37.50
P2	47.50
ΔΡ:	10
Flow	90 [GPM]
вти	454500
Delta T ta	arget 55

**Electronic Feedback Available** 

The Metering Station Venturi Valve is available with a transducer that provides an electronic output signal (4-20mA or 0-10vdc) representing the pressure drop across the venturi. This makes it easy and convenient to integrate the valve into a building's energy management computer system so

the flowrate can be monitored and recorded. And it can be combined with a  $\Delta T$  transmitter to calculate BTU/H. The transducer is also connected to the Griswold Controls app on the iPhone and Android so that the flowrate can be monitored on the phone at any time!

#### High Accuracy, Low Permanent Pressure Loss

The Metering Station manual balance valve's venturi is precisely matched to attain  $\pm1\%$  accuracy throughout its range. The



venturi produces a high signal for flow adjustment, while creating very low permanent pressure loss. The static regain from the venturi allows for full flow of wide-open index circuits with the least amount of pressure loss, thereby minimizing pump head requirements and maximizing system efficiency. A reference chart (Form #F-4439) is included with every valve,

supplying all necessary information for any installation.

## Metering Station Can Be Installed Downstream of Bends and Other Valves

1/2" through 2" Metering Station valves have built-in straight runs before the venturi. This design feature allows the valves to be installed after an elbow, temperature control or other valves without affecting flow measurement or control In 2–1/2" to 18", ASHRAE standard Pitot Tube and Venturi metering stations require four to 10 diameters of straight pipe entry for accurate measurement. Many retrofit jobs don't have four to 10 diameters of space, so accurate measurement is frequently compromised.

Griswold Controls' engineers studied "Disturbed Flow Measurement" and developed a patented Piezo Ring and dual chamber design, enabling accurate measurement in the smallest footprint. Now engineers can specify to  $\pm 1\%$  accuracy and locate the valve with less than four pipe diameters entry piping, or adjacent to an elbow or temperature control. Whether a new or retrofit installation, these valves require only simple

and direct piping, saving valuable equipment space and field labor and ensuring quality comfort conditioning and lowering operating costs for owners.





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