



# Flow Master

## PFS-FM Secondary Instrumentation

### PFS-Flow Master

Because Primary Flow Signal, Inc. continuously endeavors to remain at the forefront of the flow measurement industry, it is important for us to anticipate the present and future needs of owners and engineers who are interested in accurate and reliable flow measurement. We do this by constant research and development which results in new equipment, services technology and science that provides solutions for these emerging needs.

The **PFS-FM FlowMaster** is the result of our recognizing the needs associated with providing reliable, accurate and durable flow metering installations.

The complete flow metering system, when using a venturi meter as the primary signal source consists of the venturi meter (cast iron, flanged; fabricated and insert designs) and the differential pressure transmitter operating as the secondary instrument. By packaging all of the secondary system requirements in a compact enclosure, after installation annual calibrations can be easily performed.

Since accuracy of the flow reading is dependent upon all primary and secondary devices, PFS, Inc. is often asked to provide **"The Complete Flow Measurement System"** whereby it can guarantee a total system accuracy. With the PFS-FM FlowMaster, Primary Flow Signal, Inc. has combined the critical elements of the typical secondary group in a sturdy NEMA-4X enclosure. These key elements generally include one or more PFS-HP high performance transmitter(s), three valve manifold(s), power supply, surge suppressor(s), totalizer/indicator and may include signal discrimination, chart recorder, linearizer(s) or other customized equipment to meet the specific and unique requirements of the field application.

The **PFS-FM** is expertly engineered and constructed and includes all necessary internal wiring and plumbing along with all necessary external connectors for impulse piping, communication (like 4-20mA signal output) and power source hook up and is fully calibrated and set at the factory for the precise application conditions.

The **PFS-FM** eliminates the need for owner or contractor to dedicate trained technical or skilled trades personnel asst for sourcing, purchasing, assembly, wiring, plumbing, calibration, troubleshooting, set up and any of the myriad other additional responsibilities that are associated with providing an installation utilize separate components.

**Primary Flow Signal, Inc.** thus provides the complete equipment package as a single source supplier, bearing full responsibility for getting the installation up and running according to the application requirements and **with the accuracy assured by Primary Flow Signal, Inc., The Leader in reliable flow Measurement**



### Features and Benefits

The **PFS-FM** can address a wide universe of prospective applications in municipal as well as industrial environments. For general guidance, suitability for your particular application may be established by a quick review of the features and benefits which describe the FlowMaster.

- The PFS-FM is fully assembled, calibrated and tested at the factory by qualified PFS, Inc. technicians prior to shipment into the field.
- The PFS-FM can be used with virtually any kind of primary flow element. (though the innate accuracy of the PFE will govern the system accuracy ultimately obtained.)
- The NEMA-4X enclosure is standard, but higher NEMA standards can be obtained as option.
- The PFS-FM is covered by a full 5 year standard PFS Warranty. All key components are in stock and available for fast delivery.
- Each unit is fully documented for fast and easy reference by operator/owner personnel.
- Installation procedure can be easy as:
  - 1) Mount unit on a wall or pipe stand.
  - 2) Connect the high and low pressure sensing impulse lines between the primary flow element and the FlowMaster.
  - 3) Hook up to the electrical power source.
  - 4) Bleed off any air at the transmitter (unless setting up a gas metering installation).
  - 5) If applicable, plug in to the appropriate communication port for 4-20mA output to external system (SCADA, PLC or other).

### Other Options Available:

The PFS-FM is uniquely flexible and can be extensively configured to accommodate virtually any application. Below is provided a suggested list of possible options. Please consult the Primary Flow Signal, Inc. sales engineering department for assistance with your particular application.

- 1) Standard transmitters provided are the PFS-HP high performance transmitter. Others may be substituted as required by the application. However this may cause deterioration of system accuracy.
- 2) Easily adapts to accommodate remote seal diaphragm DP transmitter arrangements
- 3) Multiple transmitter arrangements for improved system accuracy on high turn-down applications or bi-directional flow metering are available
- 4) Additional components which can be added include:
 

✓ Strip Chart Recorder	✓ 5-valve manifold
✓ Circular Chart Recorder	✓ Modem/Cell phone communication support
✓ Linearization	✓ Alarm(s)
✓ Internal Climate (air conditioning or heater)	✓ Internal illumination

**Ideally Suited for Both Interior or Exterior Applications**



**PFS, Inc. can Design and Build the Optimal FlowMaster Tailored to You Specific Application Requirements**

