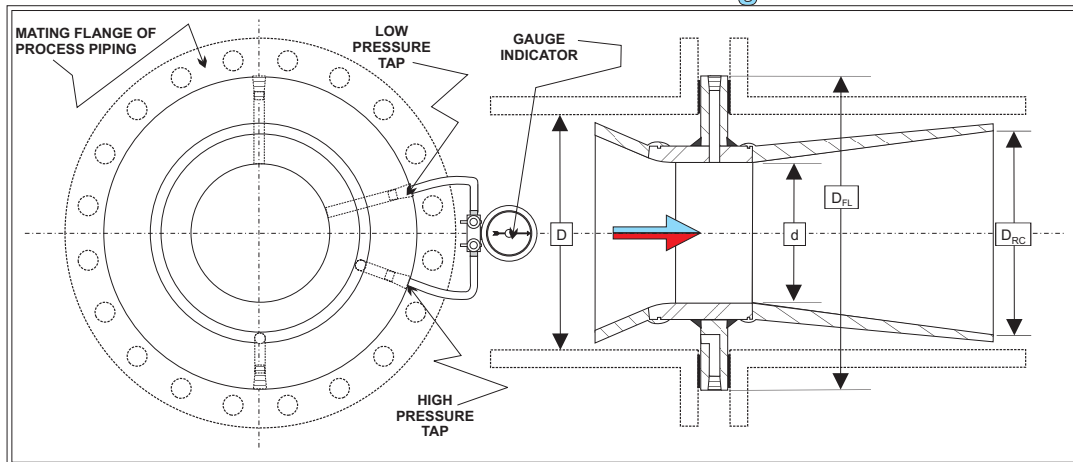


SUITABLE FOR THESE USES:	
<input checked="" type="checkbox"/>	INDUSTRIAL APPLICATIONS
<input checked="" type="checkbox"/>	MUNICIPAL APPLICATIONS

PFS-GM Gas Master Flow Meter with Gauge Indicator



General Features:

- ▶ High Accuracy, Reliability
- ▶ Low Permanent Pressure Loss
- ▶ Low Installed Cost
- ▶ Long Service Life (Up to 15 year warranty)
- ▶ Unaffected by downstream piping
- ▶ Custom designed for specific application
- ▶ Bi-Directional designs are available
- ▶ Field verifiable
- ▶ Prompt, reliable response to your technical inquiries
- ▶ Total Support from Design through Installation and Beyond

GENERAL DESCRIPTION:

The PFS-GM is an equipment package which includes a Halmi Plastic Insert Type Venturi primary flow element (HVT-PI) with an integrally mounted gauge indicator that will provide flow indication read-out in the units of choice without the requirement of on-site electrical power availability. The HVT-PI insert primary flow element consists of a hydraulic shape ruggedly constructed on a properly sized center flange that fits within the bolt circle of the mating process piping. The insert (*center flange*) is captured between the mating pipe flanges and does not need to intrinsically withstand the line pressure in the process piping, resulting in an effective pressure rating of the element matching that of the process piping identically. The gauge indicator is installed onto the piezometer high and low pressure taps of the HVT-PI, and is activated directly by the differential pressure produced by the line fluid traveling through the meter, producing the indication registered on the gauge dial. This equipment is a very inexpensive alternative for gas flow measurement, where on-site power is unavailable, and lower accuracy is acceptable.

APPLICATIONS:

The PFS-GM GasMaster is an ideal, low cost, flow measurement solution for installations where periodic visual inspections are desired. Balancing a flow system, drop leg and aeration are a few of the typical applications of this equipment.

MATERIALS OF CONSTRUCTION:

The HVT-PI is differentiated from other insert meter types offered by PFS, Inc., by virtue of the fact that the entrance and exit cones of the HVT-PI are manufactured using Fiberglass reinforced polyester resin. The center flange is generally provided in carbon steel coated with epoxy appropriate for the particular service intended for the meter while the throat section encompassing the beginning of the exit divergent angle as well as the end of the entrance convergent angle and entrance radius blend leading to the throat are typically 304 stainless steel. Depending upon the intended service, the typical material selection can be modified to suit.

DESIGN AND MANUFACTURING STANDARDS:

- All materials are mill certified and of first quality.
- All applicable codes and standards are considered such as section 8 of the Boiler and Pressure Vessel Code as well as ASME B31.1 and 31.3. ASME fluid meters, MFC-3M-1985, ISO 5167, BS-7045, compliant.
- Designed for use between raised face, flat faced, ring joint or van stone flanges of any flange rating of either U. S. or foreign standards.

PRODUCT SPECIFICATIONS:

Accuracy:

- +/- 0.50% of actual reading (2 Sigma)
- +/- 0.25% of actual reading or better based on hydraulic calibration.

Range Ability:

- 100:1 or more depending on secondary group capabilities and arrangement.

Operating Conditions:

- Line Fluid Capability:
 - Gas or liquid full pipe flow.
 - Clean with minimal particulate contamination.
- Temperature Range:
 - 60°F to 200°F (as limited by the materials of construction and capabilities of the associated secondary device(s) used.)

Line Pressure Capacity:

- From full vacuum to the limits of the process piping.

Line Size Capability:

- Unlimited line size capabilities.
- Between 3" through 144" in service.

Beta Ratio Capability:

- Custom sized and designed for Beta ratio range between 0.30 through 0.75.

Pipe Reynolds Number R_D Capability:

- Discharge coefficient is constant above 75,000 R_D .
- Discharge coefficient bias and random error between 12,000 R_D and 75,000 R_D is empirically established and highly repeatable.

Permanent Pressure Loss:

- Varies from 3% of differential and up depending on application conditions, beta ratio, and exit cone truncation ratio, and can be engineered to meet your requirements

PLEASE NOTE: Use this data as general application guidance for the equipment and/or services referenced herein. Users may reasonably expect this disclosure to constitute an accurate factual representation at the time of publication, however all data and specifications contained herein are subject to change without prior notice. This is not a contractual obligation of PFS, Inc. Primary Flow Signal, Inc. is bound SOLELY by its official SUBMITTAL document when presented in connection with an actual purchase and sale transaction, which SUBMITTAL shall form the controlling representation of any product or service claimed by Primary Flow Signal, Inc.

