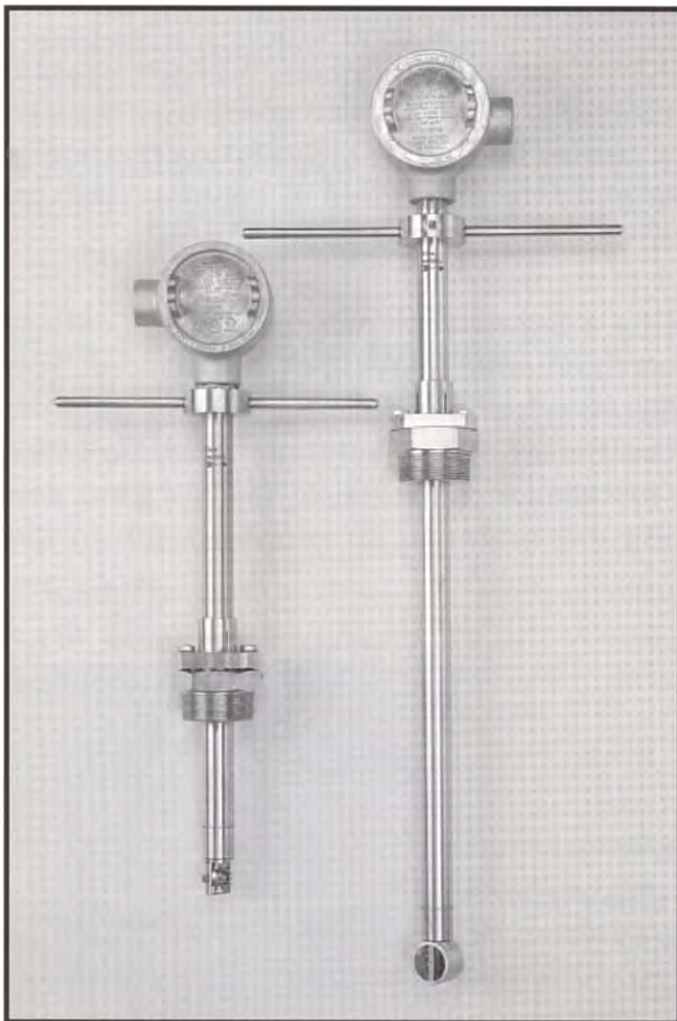


Insertion Turbine Flowmeter - FMP Series



Ranges:

- Liquid 0.3 to 50 FPS
- Gas 1.0 to 100 FPS

Electrical Output:

- 30mV P-P with magnetic pick-off
- 5V or 10V P-P with CF pickoff & pre-amplifier
- For more output options see Bulletin PA/PC/PS/LS

Series 100:

- For low pressure

Series 200:

- For high pressure with retraction mechanism

Process Connection:

- 2" NPTM
- 2" or 3" - 150# ANSI RF flange (275 PSIG)
- 2" or 3" - 300# ANSI RF flange (720 PSIG)
- 2" or 3" - 600# ANSI RF flange (1440 PSIG)

Stem Length:

- Stem length is determined by line size (2" to 72")

General:

The fundamental application of the Insertion Meter is in large diameter pipes or ducts where the traditional flow meter equipment is bulky and expensive and difficult to maintain, plus the accompanying high pressure drop characteristics and limited flow ranges of "in-line" flow meters. The Flowmetrics Insertion Meter is most useful in applications requiring flow rate control, system balancing, to establish flow rates as well as total flow. Where it is possible to establish an in-place meter factor, the Flowmetrics Insertion Meter can be used as an extremely accurate quantitative flow meter, thus allowing the replacement of expensive flow meters in custody transfer, blending, batching, dispensing services, as well as monitoring and control of energy consumption.

SPECIFICATIONS

Linearity: $\pm 1\%$ of full scale (liquid or gas)

Repeatability: $\pm 0.1\%$ of reading (liquid or gas)

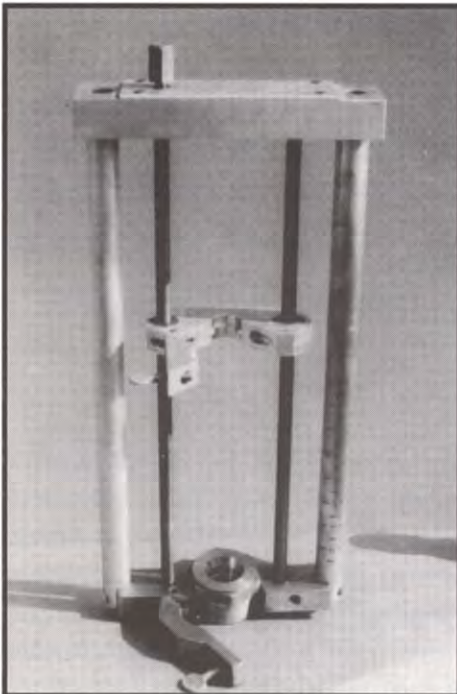
Temperature: -430°F to +400°F (STANDARD)
750°F optional
RTD sensor optional

Pressure Drop: Negligible

Materials: 316 S.S. with 430F S.S. rotor (STANDARD)
(Any machinable exotic material is optionally available)

The series 100/200 is available with a low drag magnetic pickoff which gives a sine wave output varying from 25mV to 250mV. The optional carrier frequency pickoff requires power input but eliminates magnetic drag, increases rangeability and offers a constant voltage pulse output.

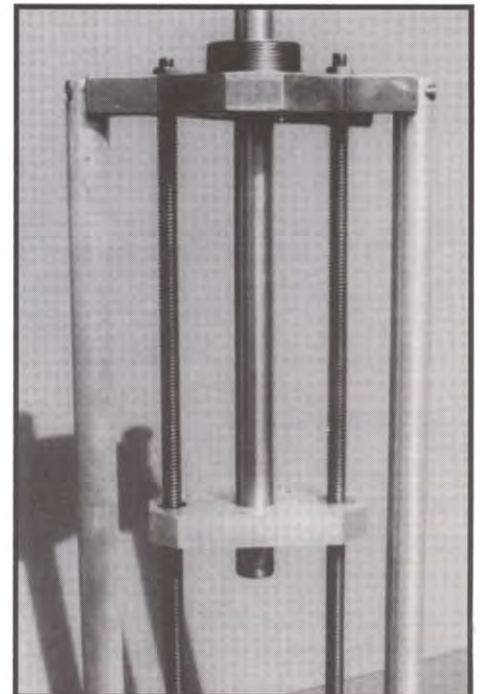
Insertion and retraction of the Series 200 is done by a Screw Jack mounted on the side of the meter. This configuration allows us to make the most space saving of installations. The meter is held in the fixed directional position required when the critical insertion depth is reached thus allowing a flow profile to be taken. The Screw Jack mechanism may be taken off the Flow Meter and used on more than one installation because of the "STEM-LOK" (patent applied for) locking device that maintains the meter at its proper depth in the stream. No special tools are required.



Locking Clamps Open

Insertion Retraction Device (Screw Jack)

Model E700



Locking Clamps Closed

MODEL NUMBERING SYSTEM



Series

- 100 or 200

Process Connection

- N = 2" NPTM
- F = ANSI Flange
(F1 = 2"-150#, F2 = 2"-300#, F3 = 2"-600#)
(F4 = 3"-150#, F5 = 3"-300#, F6 = 3"-600#)

Explosion Proof

- X = Explosion Proof
(otherwise leave blank)

Stem Length in Inches

Line Size

- (6" - 72")

Pickoff

- CF = Carrier Frequency
- LD = Low Drag

Special

Liquid/Gas

- L = Liquid
- G = Gas

Bearing

- 1 = Ball (440C)
- 2 = Carbide Journal
(Liquid Only)
- 3 = Sapphire Pivot
- 4 = Ball (440C)
w/self lubricating retainer (Gas only)
- 5 = Carbide Pivot

HI Temp Pickoff

- (otherwise leave blank)

With the addition of a full bore isolating valve, the meter can be installed by a simple hot tap operation, thus allowing the meter to be used in existing installations without disturbing flow or process operations. The Flowmetrics Insertion Meter can also be removed or pulled back into the meter housing for cleaning operations while not disturbing or shutting down flow, thus eliminating the need for costly meter or by-pass runs.

