

HALOX Distributed Products Fact Sheet

SeaMetrics TX115/215 Hot-tap Insertion Turbine Flow Meter and FT420 Flow Computer

TX115/215 Hot-tap Insertion Turbine Flow Meter

SeaMetrics TX115/215 Hot-tap Insertion Turbine Flow Meters are designed to be installed or be serviced without depressurizing the pipe. They have a turbine rotor and jewel bearings for superior low-flow performance. Rotation of the rotor is deflected by a non-drag Hall-effect sensor that interfaces easily with many types of electronic controls. A display, divider or analog transmitter can be installed on the end of the sensor or the signal can be sent without amplification for hundreds of feet to remote electronics.

Insertion and removal under pressure is possible due to the 2 inch full-port isolation valve, which comes with a nipple for installation on the pipe fitting. If it is necessary to do the initial installation under pressure, any standard hot tap drill machine with a 2-inch NPT adapter such as a Transmate or a Mueller, can be used. Ordinarily it is not necessary to use an installation tool, since the small diameter tube can be controlled by hand at all but the highest pressures.

- **Adjustable hot-tap turbine sensor for pipe sizes 2 to 48 inch diameter**
- **Isolation valve allows insertion and removal with the pipe under pressure**
- **Two sizes fit entire pipe range: IP115 to 10 inch, IP215 to 48 inch**
- **Turbine sensor allows lowest minimum flow rate**
- **High-quality ruby bearings for excellent low-flow performance and long life**
- **One easily-replaced moving part**
- **Uses standard NPT threaded pipe fittings or saddles**



- **Controls can be remote or meter mounted**
- **Square-wave frequency output can connect directly to PLC's or counter controls**

Sensor

Hall Effect Sensor

12 VDC current sinking pulse Materials

Material

Sensor Body

Brass or 316 SS

Rotor

Polypro (PVDF opt.)

Shaft

Nickel-bound tungsten carbide (Zirconia ceramic opt.)

Bearings

Ruby jewels

Isolation Valve

Bronze STD, 316SS opt.

Pipe Size

TX115

2 to 10 in (50 to 250mm)

TX215

10 to 48 in (250 to 1200mm)

Fitting Size

2 inch NPT

Maximum Pressure

200 psi (14 bar)

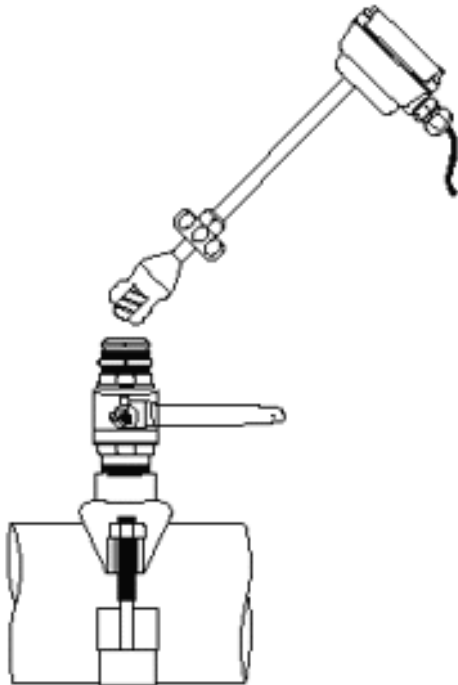
Maximum Temperature	200°F (93°C)
Range	0.2 to 30 FPS (0.006 to 9 M/s)
Accuracy	± 1% FS
Insertion Force	0.44 X pressure in pipe
Power	5 to 24 VCD, 1.5 mA
Cable	#22 AWG 3-con, 18 ft 2,000 ft (650m)
Max Cable Run	

Flow Range (Gallon Per Minute)

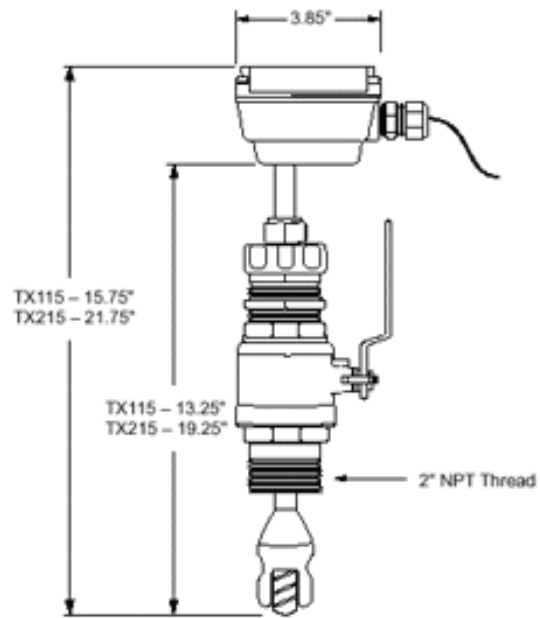
	2 inch	3 inch	4 inch	6 inch	8 inch	10 inch	12 inch	16 inch	24 inch
Min	2	5	8	18	30	50	70	110	250
Max	300	700	1100	2500	4500	7000	10000	16000	35000

Dimensions

TX115/215 Sensor Removal



Dimensions



TX115(Material Code)-(Option Code)

TX215(Material Code)-(Option Code) (ex. TX115S-06 is a Stainless Steel TX101 with a LMI Connector)

Material Code

- B:** Brass
- S:** 316 Stainless Steel

Option Code

- 03** Bidirectional flow/Dual Output
- 04** Micropower sensor
- 05** PVDF rotor/ceramic shaft

Option Code

- 06** LMI Connector
- 07** SeaMetrics Connector
- 40** Submersible

FT420 Loop-powered flow indicator, displays rate and total flow

The SeaMetrics FT420 is a loop-powered microcontroller-based transmitter/indicator. It displays rate and total flow, and provides a 4-20 mA analog signal proportional to flow. A programmable pulse output is also standard for metering pump control or data logging.

The rugged cast-aluminum housing is gasketed for maximum environmental protection and the electronics are potted into a solid block of urethane. A membrane keypad allows setting to be changed without removing the cover. The universal mount version comes with brackets for wall mounting and also with an adapter for field installation on 80series flow sensors. The FT420 can also be factory or field installed on a TX100/200 series sensor WT meter.

- **Pulse and 4-20 mA analog outputs, both numerically scaled by the user**
- **Rugged cast aluminum housing, covered with a heat-fused coating**
- **For maximum moisture protection, the electronic components are potted solid**
- **Wall, flow meter, and panel mounting**
- **Non-volatile memory saves settings and total without a battery**

Power 4 mA DC (4 to 20 mA loop), 12 to 32 VDC

Display
Rate 6-digit autorange, 1/2 in character height
Total 8-digit, 5/16 in character height

Pulse Output
Scaled 0.1 second open collector
Unscaled Sensor pulse; high alarm or low alarm

Input Pulse frequency + 5 VDC

K factor Range 0.050 to 2000

Pulse Output Range 0.1 to 200,000 units/pulse

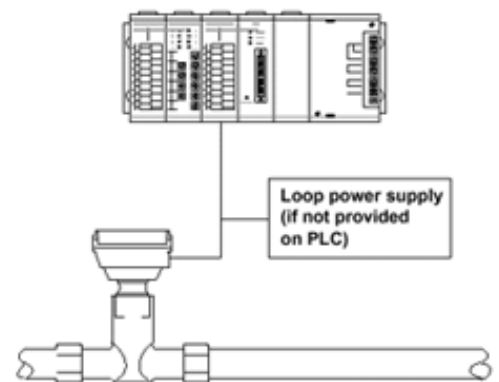
Temperature 32° to 158°F (0° to 70°C)

Environmental NEMA 4X

Models
FT420M (Meter Mounted)
FT420W (Wall Mounted)
FT420P (Panel Mounted)



Typical 4-20 mA Application



Dimensions

