



General Information

These “hot tap” versions of the proven TX insertion flow sensors are designed to install or be serviced without depressurizing the pipe. Like all TX sensors, they have a turbine rotor and jewel bearings for superior low-flow performance. Rotation of the rotor is detected by a non-drag Hall-effect sensor, which interfaces easily with many types of electronic control. 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.

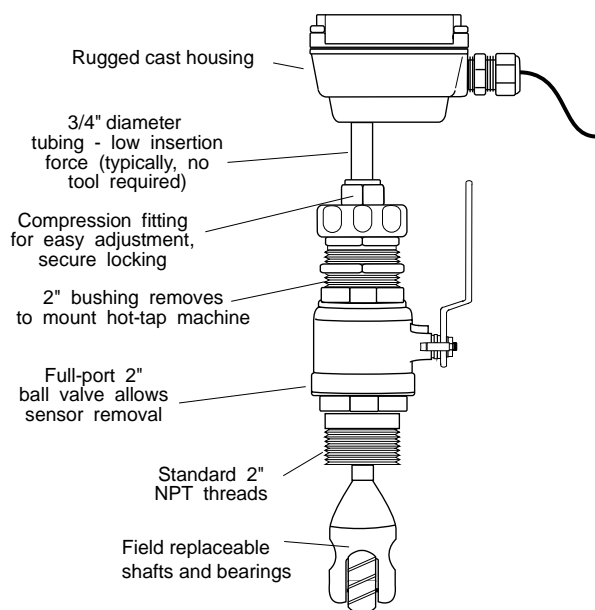
Insertion and removal under pressure is possible due to the 2" full-port isolation valve, which comes with a nipple for installation on the pipe fitting. If it is necessary to do the initial installation under pressure, any standard hot tap drilling machine with 2" NPT adapter, such as a Transmate or 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.

For installations which lack electrical power, an FT415 battery-powered flow computer can be installed directly on the hot-tap turbine to provide local reading. For this application, a passive pickup is required (see How To Order).

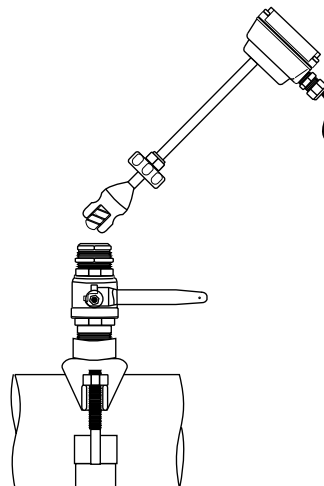
Specifications

Materials	
Sensor body	Brass, 316 SS
Rotor	Polypro, PVDF (optional)
Bearings	Ruby or Sapphire
Shaft	Nickel-bound tungsten carbide, zirconia ceramic optional
Range	
	0.2 - 30 FPS (.006-9 M/s)
Accuracy	
	+/- 1% FS
Maximum Pressure	
	250 psi (17 bar)
Temperature	
Standard	185° F (85°C)
High-Temp	250° F (121°C)
Pipe Size	
TX115	2" - 10" (50-250mm)
TX215	10" - 48" (250-1200mm)
Fitting Size	
	1-1/2" NPT
Insertion Force	
	0.44 x pressure in pipe
Power	
Standard (Hall-Effect)	5 - 24 VDC, 1.5 mA
Passive pickup	Generated sine wave, no external power
Signal	
	Standard: current sinking (NPN) pulse, 20 mA maximum; Optional: passive pickup generated sine wave
Cable	
	#22 AWG 3-con, 18' (6m)
Max. Cable Run	
	2,000 ft. (650m)

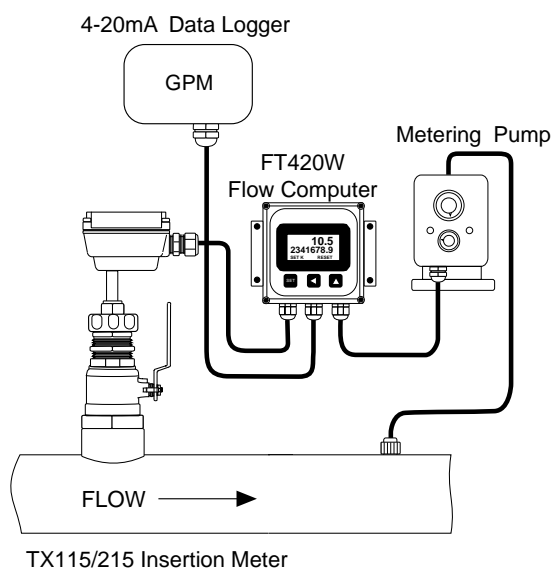
Features



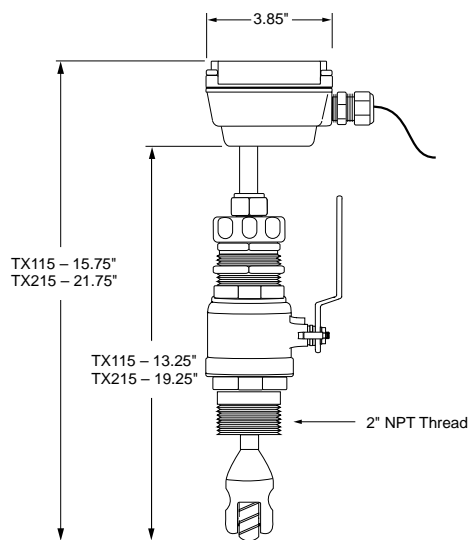
TX115/215 Sensor Removal



Typical Application



Dimensions



How To Order

Material codes: B = Brass, S = (316 SS)

Option codes: (see options at right)

TX115 - ____ - ____ Adjustable 2" to 10"

TX215 - ____ - ____ Adjustable 12" to 48"

Option codes:

- 04** Passive Pickup
- 03** Bidirectional flow (Hall-Effect only)
- 05** High temp: PVDF rotor, ceramic shafts
- 06** LMI connector
- 07** SeaMetrics control connector
- 08** Stainless valve assembly
- 09** No valve assembly
- 40** Submersible

