

Tangential Turbine Flowmeter for Liquid and Gas Services FT Series

DESCRIPTION & FEATURES

- A high-resolution volumetric flow sensing device.
- Capable of measuring extremely low flow rates in liquid or gas:
 - 0.005 GPM in Liquid and
 - 0.010 ACFM in Gas
- RF Modulated Carrier pickoff with digital output
- Low drag magnetic pickoff with 15 mV peak to peak
- FMTseries flow transducer is a unique volumetric device.
It is a dual orifice design to direct a stream of fluid tangent to a low mass/balanced rotor and a precision bearing to provide maximum sensitivity.
- This geometry eliminates the need for flow straighteners and allows for greater repeatability.

MATERIAL OF CONSTRUCTION

- Housing: 316 SS
- Internal wetted parts: 316 SS
- Rotor: 17-4 PH or 430F SS
- Ball Bearings: 440C Stainless Steel or Hybrid Ceramic
- O-Ring: Teflon, Viton, Buna N, or any other material specified by customer

Dynamic Response:

- 10 msec or less for Liquid
For gas service meter, it depends on gas density
- Recommended filtration: 10 to 100 micron
- Maximum Operating Pressure: 5800 psi (400 Bar)
- Compact size: 3" end to end with 1/2" FNPT or 1/2" AN/MS internal thread

SPECIFICATIONS

ACCURACY	LIQUID SERVICE ^①	GAS SERVICE ^②
Calibration (Traceable to NIST / Primary Standard)	± 0.05% of Reading	± 0.03% of Reading
Repeatability	± 0.1% of Reading	± 0.2% of Reading
linearity with linearizing electronics	± 0.1%	± 0.1%
Pressure Drop	< 10 psid (700 mBar) at max flowrate	< 8 IWC (20 mBar) at max flowrate
Viscosity	Max Viscosity 50 cst Recommended	Not Applicable
Temperature Range	-450°F TO 350°F	-450°F TO 350°F

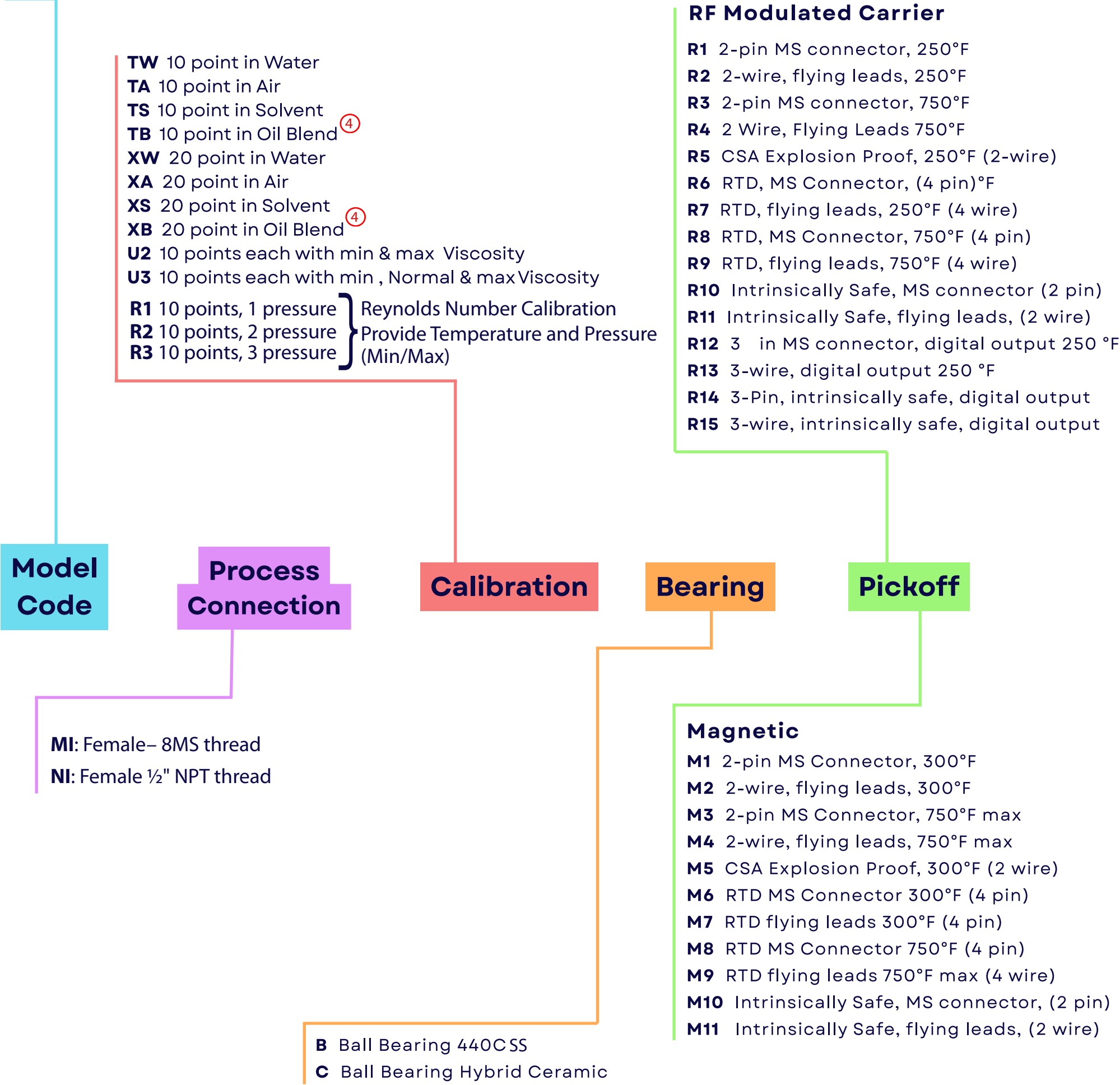
FLOW RANGE– TABLE I

Model Code	Normal 10 : 1		Extended ^③	
	Liquid GPM	Gas ACFM	Liquid GPM	Gas ACFM
FT-1	0.20-2.00	N/A	0.10-2.00	N/A
FT-2	0.10-1.00	0.10-1.00	0.05-1.25	0.05-1.00
FT-3	0.07-0.70	0.07-0.70	0.02-0.80	0.04-0.80
FT-4	0.02-0.20	0.025-0.25	0.01-0.25	0.015-0.25
FT-5	0.01-0.10	0.015-0.150	0.005-0.15	0.01-0.15

- ① Data is based on tests with Water at 70°F and 14.7 PSIA
- ② Data is based on tests with Air at 70°F and 14.7 PSIA
- ③ Requires a pre-amplifier / signal conditioner

PART NUMBERING SYSTEM

Refer Table I



④ The fluid viscosity must be provided

