

TX80-Series Turbine Insertion Flow Meters

Fixed Depth Turbine Insertion Flow Meters for Full Pipe Flows



Description

The TX80-Series Turbine Insertion Flow Meters are turbine-type insertion flow meters designed for use in pipes from 1½" to 8" in diameter. They are available in brass, 316 stainless steel, and polypropylene.

Precision Design

The TX80 meters have high quality jewel bearings and nickel bound tungsten carbide shafts that ensure maximum life and extreme low friction. The meter bodies are machined from solid rod for maximum precision and superior low flow performance. The precision design makes the meters ideal for chemical proportioning applications.

How it Works

The rotation of the meter's rotor is detected by a non-drag Hall effect sensor. The meter's output is a pulse-type square wave, which can be sent long distances (up to 2,000 feet) without a transmitter. This signal can be connected directly to PLC's, counters, and computer cards.

Versatile Output and Displays

For rate and total flow display, as well as pump pacing, you can mount the FT415M or FT420M flow indicator directly onto the sensor. For a wall-mounted display, select the FT420W. For a 4-20 mA analog output only, you can mount the optional AO55 blind 4-20 mA converter directly onto the meter.

Range of Installation Fittings

We offer a range of special installation fittings for the fixed depth meters that will automatically ensure correct depth placement in the pipe. Fittings are available in PVC, brass, and stainless steel.

Specifications

Accuracy	±1% full scale
Flow Range	0.2 to 30 ft/sec (.06 to 9.14 m/sec)
Sensor/Output	Hall Effect Sensor: 12 VDC current sinking pulse
Maximum Pipe Pressure	Polypro: 175 psi @ 75°F (12 bar) Brass: 200 psi (14 bar) 316 SS: 250 psi (17 bar)
Maximum Temperature	Polypro: 130°F (55°C) at 0 psi Brass, Stainless Steel: 200°F (93°C) at 0 psi
Nominal K-Factor	11 Hz/ft/sec (3.6 Hz/m/sec)
Power	6 to 24 VDC, 8 mA minimum
Materials	Sensor Body: Polypro, Brass, 316 stainless steel Rotor: Polypro Shaft: Nickel-bound tungsten carbide Bearings: Ruby Cable: #22 AWG 3-con 18' (6m)
Maximum Cable Run	2,000' (650m)
Weight	~2lbs (907g)
Dimensions	1-1/2" dia. x 4" long (3.8 cm dia. x 10 cm long)

Ordering & Options

Turbine Insertion Flow Meters

Order No.	Material	Pipe Diameter
TX81Y	Polypro	1½" to 4"
TX81B	Brass	1½" to 4"
TX81S	Stainless Steel	1½" to 4"
TX82Y	Polypro	6" to 8"
TX82B	Brass	6" to 8"
TX82S	Stainless Steel	6" to 8"

Features

- Easy to install
- No spool pieces required
- High-quality ruby bearings for excellent low-flow performance and long life
- One easily replaced moving part
- Pickup exerts no magnetic drag on the rotor
- Square wave frequency output can connect directly to PLC's or counter controls
- Indicator or transmitter can be mounted on the flowmeter or remotely
- Fittings are available in a wide variety of materials and sizes

Applications

Ideal for metering clean water flows and chemical proportioning.

Installation Fittings for TX81

Order No.	Material	Fitting Type	Pipe Diameter
TF81T-P-150	PVC	Tee ¹	1½"
TF81T-P-200	PVC	Tee ¹	2"
MF82S-P-300-16 ²	PVC	Saddle	3"
MF82S-P-400 ³	PVC	Saddle	4"
TF81T-S-150	304 SS	Tee	1½"
TF81T-S-200	304 SS	Tee	2"
MF82S-B-300	Bronze	Saddle	3"
MF82S-B-400	Bronze	Saddle	4"
MF82W-S-400	316 SS	Weld	4"

1) Male stub ends.

2) Installed on 16 inch long pipe stub.

Installation Fittings for TX82

Order No.	Material	Fitting	Pipe Dia.
MF82S-P-600 ³	PVC	Saddle	6"
MF82S-P-800 ³	PVC	Saddle	8"
MF82S-F-600	Ductile Iron	Saddle	6"
MF82S-F-800	Ductile Iron	Saddle	8"
MF82W-S-600	316 SS	Weld	6"
MF82W-S-800	316 SS	Weld	8"

3) PVC saddle is supplied with Buna-N O-rings only. For chemical service, the O-ring must be removed and the saddle glued on to the pipe with PVC cement.

Optional Output Displays & Converters

Order No.	Description
FT415M	Battery Powered Pulse Output and Meter-Mounted Display
FT415W	Pulse to 4-20 mA Output and Wall-Mounted Display
FT420M	Pulse to 4-20 mA Output and Meter-Mounted Display
FT420W	Pulse to 4-20 mA Output and Wall-Mounted Display
AO55M	Blind 4-20 mA Converter, Meter Mounted
AO55W	Blind 4-20 mA Converter, Wall Mounted

Regional Distributor



Global Water
The Leader in Water Instrumentation

803, Riqqa Palace Building
Al-Maktum Ave. opposite Deira Etisalat
P.O.Box 181802 Dubai, UAE
Tel: +9714 - 2270081
Fax: +9714 - 2239962
E-mail: rcsc@eim.ae
www.rcs-co.com

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Rabbit Control Systems
Automation & Control Engineering