TEFLON® SERIES
Turbine Flowmeters
for Corrosive Service
Product Bulletin HO-TF-112C

The Turbine Flowmeter Company

TECHNICAL DATA SHEET

OUTSTANDING FEATURES

- All wetted parts are teflon[®]. Recommended for corrosive service and ultrapure water flow applications.
- Suitable for clean liquid service at one centistoke.
- Flow rate capability from 0.35 to 485 GPM, (¼" through 3" sizes).
- Provides digital pulse output.
- Supplied with RF flanges per ANSI or DIN flanges.



GENERAL DESCRIPTION

All wetted parts are teflon®. Magnets are embedded in teflon® blades of rotor assembly. Within the Hoffer turbine flowmeter, the flowing media engages a vaned rotor causing it to rotate at an angular velocity proportional to flow rate. The pickup coil senses the spinning motion of the rotor through the housing and converts it into a pulsing electrical signal. Summation of the pulsing electrical signal relates directly to the total flow, while the frequency is linearly related to flow rate. Sleeve type bearing, rotor, cones, and flow straightening sections are machined teflon®. Available with flanged end fittings including RF per ANSI and DIN types. Size selections available are ¼" to 3". The Teflon® Series offers a linearity of ±1% of reading and a repeatability of ±0.1% of reading. The temperature rating on the Teflon® Series is 30°F minimum and 120°F maximum. Maximum pressure is 600 PSIG.

SIZE SELECTOR CHART FOR TEFLON® SERIES					
METER SIZE	LINEAR AND REPEATABLE RANGES		TECHNICAL DATA		
(IN INCHES)	GPM	LPM	Weight (lbs.)	Overall Meter Length	K-Factor (±10%) (Pulses/ Gallon)
1/4	.35 - 3.5	1.3 -13.2	4.5	2.453"	1200
3/8	.75 - 7.5	2.8 - 28.4	4.5	2.453"	1000
1/2	1.25 - 9.5	4.7 - 36	4.5	2.453"	800
5/8	1.75 - 16	6.6 - 60.6	6	3.25"	500
3/4	2.5 - 20	9.5 - 76	6	3.25"	375
1	4 - 45	15 - 170	6	4.437"	124
11⁄4	6 - 70	23 - 265	8	6"	60
1½	8 - 100	30.3 - 378	8	6"	40
2	15 - 170	56.8 - 643.5	13	6"	17
21/2	37.5 - 300	142 - 1135	22	7"	6
3	60 - 485	227 - 1836	27	10"	3.8

®Teflon is a registered trademark of E.I. DuPont de Nemours and Company, Inc.

PERFORMANCE SPECIFICATIONS

Linearity: $\pm 1\%$ of reading over linear flow range.

Repeatability: ± 0.1 of reading over repeatable flow range.

Temperature & Pressure Limitations: 30°F minimum and 120°F maximum temperature range acceptable.

600 PSIG pressure limitation.

Pressure Drop: Less than 4 PSI at maximum linear flow rate.

Output: 10 mV RMS or greater into a 10 K ohm load at a minimum flow rate.

A complete line of flowmeter signal conditioners (preamplifiers) and flow computers are available. Consult with the applications group at Hoffer for additional information.

ORDERING INFORMATION

Basic Model Number I	10 (A) X (B) - (C) - (D) - (TFE) - (E/F/G) - (H) - (I) - (
A. Process Connection	_				
B. Flowmeter Size	Internal Fitting Gize				
C. Minimum Operatin	g Flow (GPM)				
D. Maximum Operation	ng Flow (GPM)				
Bearing Type					
(TFE)	Peek Teflon® Bearings				
E. Pickup Coils					
(1M)	One Magnetic Coil				
(2M)	Two Magnetic Coils				
(1ISM)	Intrinsically Safe Mag Coil				
(2ISM)	Two Intrinsically Safe Mag Coils				
F. Coil Spacing, Mecl	nanical Degrees apart (Factory Assigned)				
G. Riser & Explosion-F	Proof Coil Enclosure (Rated Class I, Groups C & D)				
(X)	1" MNPT riser, welded to body. Required for all types of enclosures.				
(X3/0)	1" riser with enclosure and without signal conditioner.				
(X3H/0)	1" riser with enclosure and dome cover for Style 1 signal conditioner.				
(X3B/0)	Same as (X3/0) with BASEEFA, FM and CENELEC-EExd approvals.				
(X4H/O)	1" riser with dome cover for ACC22 and ACC96.				
(3B/0)	1" riser with dome cover for Style 1 signal conditioners to meet Group B.				
(3B/0-ATEX)	1" riser with dome cover for Style 1 signal conditioners to meet Group B. Meets ATEX.				
(4/0)	1" riser with flat cover for Style 2 signal conditioners to meet Groups C & D.				
(4B/O)	1" riser with dome cover for Style 2 signal conditioners to meet Group B.				
II. Flanned Time Duce	Connection (Non-wetted)				
	ess Connection (Non-wetted)				
(F1SS)	150# S/S Raised Face Flanged per ANSI.				
(F3SS)	300# S/S Raised Face Flanged per ANSI.				
(F6SS)	600# S/S Raised Face Flanged per ANSI.				
(DN_/PN_/SS)	DN = Metric size, PN = flange pressure rating (in DIN Std) and select material.				
I. Housing					
(TFE)	Housing and all wetted parts are TFE (Teflon®)				
J. Special Features					
(CE)	CE Mark required for Europe.				
(PED-CE)	PED-CE Mark required for Europe.				

*NOTE: Teflon® meters are supplied with stainless steel housings. All wetted parts of flowmeter are teflon®.





HOFFER FLOW CONTROLS, INC.

107 Kitty Hawk Lane, P. O. Box 2145, Elizabeth City, NC 27906-2145 800-628-4584 252-331-1997 FAX 252-331-2886 www.hofferflow.com emall: info@hofferflow.com

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

The quality system covering the design, manufacture and testing of our products is certified to International Standard ISO 9001.

