TURBINE FLOWMETERS BY HOFFR

for Corrosive Service
Product Bulletin HO-TF-112E

TEFLON® SERIES

Turbine Flowmeters

The Turbine Flowmeter Company

TECHNICAL DATA SHEET

OUTSTANDING FEATURES

- 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 frequency output.
- Mates with RF flanges per ANSI or DIN flanges.





Our standard Teflon® turbines are supplied with PTFE for all wetted parts manufactured from blue-dyed Teflon® with the exception of the shaft which is normally manufactured from poly-ether-ether-ketone (PEEK) and the bearing and thrust washers which are a PEEK/PTFE blend. Please confirm PEEK is compatible with the intended service fluid. Other options are available.

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. 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 35°F minimum and 125°F maximum. Maximum pressure is 300 PSIG.

SIZE SELECTOR CHART FOR TEFLON® SERIES					
METER SIZE	LINEAR AND REPEATABLE		TECHNICAL DATA		
(IN INCHES)	GPM	LPM	Weight (lbs.)	Overall Meter Length	K-Factor (±10%)
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
2½	37.5 - 300	142 - 1135	22	7"	6
3	60 - 485	227 - 1836	27	10"	3.8

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PERFORMANCE SPECIFIC ATIONS

Linearity: ±1% of reading over linear flow range.

Repeatability: ±0.1 of reading over repeatable flow range.

Temperature & Pressure Limitations: 35°F minimum and 125°F maximum temperature range acceptable.

300 PSIG pressure limitation.

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

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

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			
A. Process Connection B. Flowmeter Size	on/End Fitting Size		
C. Minimum Operatir	og Flow (GPM)		
D. Maximum Operati			
	III Flow (GPM)		
Bearing Type			
(TFE)	PEEK/Teflon® Bearings		
E. Pickup Coils			
(1M) (2M) (1ISM) (2ISM)	One Magnetic Coil Two Magnetic Coils Intrinsically Safe Mag Coil Two Intrinsically Safe Mag Coils		
	hanical Degrees apart (Factory Assigned) -Proof Coil Enclosure (Rated Class I, Groups C & D)		
(X) (X3/0) (X3H/0) (X3B/0) (X4H/O) (3B/0) (3B/0-ATEX) (4/0) (4B/0)	1" MNPT riser, welded to body. Required for all types of enclosures. 1" riser with enclosure and without signal conditioner. 1" riser with enclosure and dome cover for Style 1 signal conditioner. Same as (X3/0) with BASEEFA, FM and CENELEC-EExd approvals. 1" riser with dome cover for ACC22 and ACC96. 1" riser with dome cover for Style 1 signal conditioners to meet Group B. 1" riser with dome cover for Style 1 signal conditioners to meet Group B. Meets ATEX. 1" riser with flat cover for Style 2 signal conditioners to meet Group B. 1" riser with dome cover for Style 2 signal conditioners to meet Group B.		
I. Flanged Type Proc	cess Connection (Non-wetted)		
(F1SS) (F3SS)	150# S/S Raised Face Flanged per ANSI. 300# S/S Raised Face Flanged per ANSI.		
(DN_/PN_/SS)	DN = Metric size, PN = flange pressure rating (in DIN Std) and select material.		
Housing			
(TFE)	Housing is PTFE and is manufactured from blue-dyed Teflon®. The shaft is normally manufactured from poly-ether-ether-ketone (PEEK) and the bearing and thrust washers which are a PEEK/PTFE blend.		
J. Special Features			
(CE) (PED-CE)	CE Mark required for Europe. PED-CE Mark required for Europe.		

*NOTE: Teflon® meters are supplied with stainless steel housings.



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