Turbine Flow Meter
StaTurb TF100 Series - Standard

Introduction

The TF100 series turbine flow meter includes a rotor and a sensor. When fluid passes through TF100 and the revolving rotor passes the sensor, electrical pulses are produced in which frequency is proportional to the flow rate.

As one of our most popular turbine flow meters, TF100 series are used to measure lower viscous medium media, such as water, light fuel, solvent, hydraulic oil, lubricating oil etc.



Characteristics

High pressure resistance

Low pressure loss

Fast response

High repeatability and accuracy

Resistant to contamination

Optional 20:1 turndown

Applications

Petrochemical / Energy

Hydraulic / Lubrication

Chemical processing

Oil / Gas

Aviation / Aerospace

Test bench

Specifications

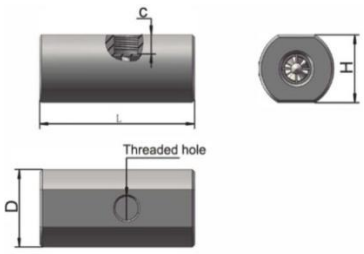
Applicable Medium	Liquids with medium or lower viscosity
Accuracy	1% of reading
	Optional 0.5%
Repeatability	<0.2% of reading
Pressure Resistance	Max. 6,000 psi (420 bar)
Operating Temperature	-350 to 450°F (-212 to 232°C)
Materials	Body: 316L SS
	Rotor: Duplex SS
	Bearing: Tungsten Carbide Journal Bearing
Process Connection	NPT thread
	BSPP thread
	Other connections on request
Certification	ISO 9001; CE

Flow Range

Part Code	Flow Meter Size (Inch)	Flow Range		Max. Pressure Rating		Max. Filter Diameter (Micron)
		GPM	LPM	psi	bar	
R4A	1/4"	0.13…1.3	0.5…5	6,000	420	75
R4	1/4"	0.26…2.6	1…10	6,000	420	100
R6	3/8"	0.52…5.2	2…20	6,000	420	150
R8A	1/2"	1…10	3.8…38	6,000	420	150
R8	1/2"	1.8…18	6.8…68	6,000	420	150
R12	3/4"	3.4…34	13…130	4,300	300	150
R16	1"	4.5…45	17…170	4,300	300	200
R20	1-1/4"	6.6…66	25…250	3,600	250	200
R24	1-1/2"	8.5…85	32…320	3,600	160	200
R32	2"	18…180	67…670	2,100	150	200

* Turndown 20:1 is available, see order code for details.

Dimensions



Part Code	Flow Meter Size (inch)	End Fittings		Dimensions (female thread)			
		Female Thread (inch)	Male Thread (inch)	L	H	D	C
				mm	mm	mm	mm
R4A	1/4"	3/8"	1/2"	68	27	33	9.7
R4	1/4"	3/8"	1/2"	68	27	33	9.2
R6	3/8"	3/8"	1/2"	68	30	36	8.7
R8A	1/2"	1/2"	3/4"	96.6	41	47	11.7
R8	1/2"	1/2"	3/4"	96.6	41	47	11.7
R12	3/4"	3/4"	1"	115	46	52	11.7
R16	1"	1"	1-1/4"	142	50	56	11
R20	1-1/4"	1-1/4"	1-1/2"	164	60	66	12.5
R24	1-1/2"	1-1/2"	2"	197	70	76	13.5
R32	2"	2"	2-1/2"	210	75	83	11

Order Code

Example: TF100-NF-R12-B

1. Model	
TF100-	Turbine Flow Meter

2. End Fitting	
GF	Female BSPP thread
GM	Male BSPP thread
NF	Female NPT thread
NM	Male NPT thread
S	Other connections on request

3. Part Code	
R12	Select a part code from flow range table above to determine the flow range.

4. Accuracy	
A	0.5% of reading
B	1% of reading

5. Turndown (optional)	
E20	20:1 A 20:1 turndown will result in a 50% reduction in the lower flow limit.

Electronics Options

S1000 Pickup Coils / Transmitters
Amplified Pulse
Linearized 4…20mA Output



DE500 Local Display
Local Display
4…20mA + Alarms Output



SA500 Pickup Coils
Intrinsically Safe
Amplified Pulse



SX500 Flow Transmitters
Explosion-Proof
Modbus RS485



Refer to the electronics datasheet for details.