FLANGED TURBINE FLOW METER - HM-F SERIES

TECHNICAL SPECIFICATIONS

Measuring Accuracy
± 1.0% of reading or better

Repeatability
± 0.05%

Flow Measuring Range
.008 to 12,000 GPM (gal/min)

Turn Down Ratio
10:1

Maximum Operating Pressure
Working pressure is flange dependent

Maximum Operating Temperature
Fluid temperature of -384° to 662°F

Filtration Requirement
300 microns

End Connections
Equipped with flanges as per DIN or ANSI

MATERIALS OF CONSTRUCTION

Body	316 Stainless Steel Ti / 316L
Rotor Support	316 Stainless Steel Ti
Rotor	429 Stainless Steel / 329
Bearings	Tungsten Carbide with Nickel binder

BENEFITS

Fast Response Time & High Resolution
The Turbine wheel's low moment of inertia allows a fast acceleration from standstill up to full number of revolutions within 5 to 50 sec. For that reason, dynamic measurements can be made. The resolution can amount to as much as 35,000 pulses per liter.

Wide Temperature Range
Standard turbine: -4 up to 248°F
Special models for cryogenic liquids: -459°F
Special models w/ hi-temp pickups: up to 662°F.

Low Contamination Risk
The spacing of the turbine wheel and bearing mount is wide enough to protect against particles in fluid jamming the turbine wheel. And the Twist of flow in this area has a self-cleaning effect for the bearing.

SENSOR OPTIONS

Model	Sensor Type	Temp (°F)
VTEK/P	Pulse output sensor	-150 to 325
VTEK/P -EX	Pulse output sensor	-40 to 185
RT-30SD	Local flow rate transmitter	-40 to 140
RT-30EX	Hazardous area rated local flow rate transmitter	

** For additional sensors available, contact factory.*

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METER SPECIFICATIONS

Part Number	Range (gal/min)	K-Factor (Pulses/ Gal)	Frequency (0-max. Hz)	
HM 9 EP	0.008 to 0.2	36,723	1970	
HM 3/1.5	0.08 to 0.4	8,454	1,000	1,000
HM 3/4	0.13 to 1.06	6,340	1,250	1,250
HM 5/6	0.2 to 1.6	4,703	1,740	1,780
HM 5/10	0.3 to 2.6	2,906	1,750	1,750
HM 7	0.5 to 5	1,374	1,800	1,800
HM 9	0.9 to 9	502	1,080	2,200
HM 11	1.6 to 16	343	1,350	2,700
HM 13	2.2 to 22	238	1,300	2,600
HM 17	3.2 to 32	100	800	1,650
HM 19	4 to 40	82	925	1,600
HM 22	5.3 to 53	57	800	1,600
HM 24	6.6 to 66	45	800	2,000
HM 28	7.9 to 95	41	960	2,000
HM 30	9.2 to 106	34	860	1,850
HM 36	10.6 to 132	16	600	1,200
HM 40	13.2 to 198	28	1,320	1,400
HM 50	18.5 to 317	17	1,400	
HM 65	26.4 to 528	6	850	
HM 80	42.8 to 845	3	615	
HM 100	66 to 1320	2	560	

Pulses/ m3			
Part Number	Range (gal/min)	K-Factor (Pulses/Gal)	Frequency (0-max. Hz)
HM 125	79 to 1744	1189	495
HM 150	94 to 2642	898	420
HM 200	114 to 3540	9	134
HM 250	219 to 6604	70	150
HM 300	423 to 12,680	36	110

VISCOSITY GROUPS

Turbine size	Viscosity	Viscosity Group #
HM 003	1 - 9 cST	15
HM 003	10 - 30 cST	57
HM 004	1 - 19 cST	27
HM 004	20 - 30 cST	77
HM 005	1 - 9 cST	15
HM 005	10 - 30 cST	57
HM 006	1 - 19 cST	27
HM 006	20 - 30 cST	77
HM 007	1 - 19 cST	27
HM 007	20 - 30 cST	77
HM 009	1 - 9 cST	15
HM 009	10 - 19 cST	52
HM 009	20 - 30 cST	77
HM 011	1 - 9 cST	15
HM 011	10 - 19 cST	52
HM 011	20 - 30 cST	77
HM 011	30 cST >	80
HM 013	1 - 7 cST	10
HM 013	8 - 14 cST	40
HM 013	15 - 19 cST	65
HM 013	19 - 29 cST	75
HM 013	30 cST >	80
HM 017	1 - 7 cST	10
HM 017	8 - 9 cST	35
HM 017	10 - 29 cST	55
HM 017	30 cST >	80
HM 019	1 - 7 cST	10
HM 019	8 - 9 cST	35
HM 019	10 - 14 cST	50
HM 019	15 - 19 cST	65

Turbine size	Viscosity	Viscosity Group #
HM 019	20 - 29 cST	75
HM 019	30 cST >	80
HM 022	1 - 7 cST	10
HM 022	8 - 9 cST	35
HM 022	10 - 29 cST	55
HM 022	30 cST >	80
HM 024	1 - 7 cST	10
HM 024	8 - 9 cST	35
HM 024	10 - 29 cST	55
HM 024	30 cST	80
HM 028	1 - 7 cST	10
HM 028	8 - 29 cST	45
HM 028	30 cST >	80
HM 030	1 - 7 cST	10
HM 030	8 - 29 cST	45
HM 030	30 cST >	80
HM 036	1 - 7 cST	10
HM 036	8 - 29 cST	45
HM 036	30 cST	80
HM 040	1 - 9 cST	15
HM 040	15 - 29 cSt	75
HM 040	30 cST >	80
HM 050	1 - 9 cST	15
HM 050	15 - 19 cSt	65
HM 050	20 - 29 cSt	75
HM 050	30 cST >	80
HM 065	1 - 7 cST	10
HM 065	8 - 14 cST	40
HM 065	15 - 29 cST	70
HM 065	30 cST >	80