



Description

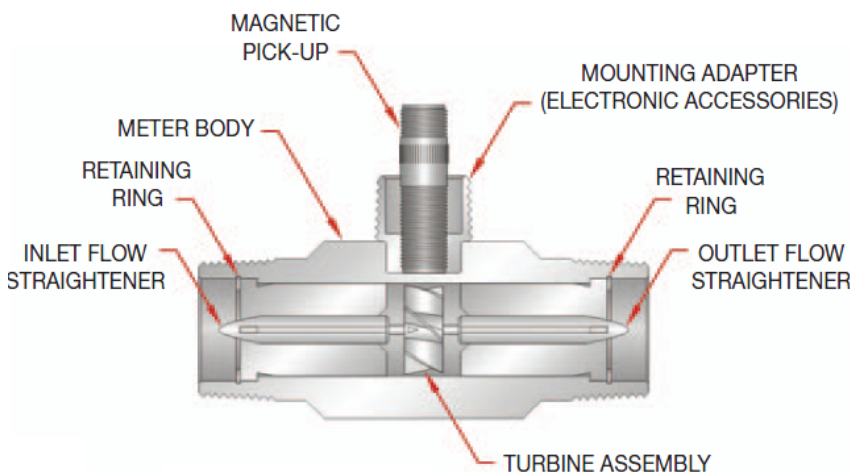
The Model TDHS Turbine Flow Meter is designed to withstand the demands of the most rigorous flow measurement applications. The meter features a rugged 316 stainless steel housing and rotor support assembly, CD4MCU stainless steel rotor, and abrasion-resistant tungsten carbide rotor shaft and journal bearings. The Model TDHS maintains measurement accuracy and mechanical integrity in the corrosive and abrasive fluids commonly found in a variety of industrial applications.

The Model TDHS is standard with a magnetic pick-up which produces a frequency output that is proportional to its volumetric flow rate. When paired with the LCD Flow Monitor, this compact system offers local indication of both flow rate and total flow. For further flexibility, Hedland offers electronic options which convert the frequency output to an analog signal for easy electronic integration with most instruments, PLCs, and computers.



Operating Principle

Fluid entering the meter passes through the inlet flow straightener which reduces its turbulent flow pattern and improves the fluid's velocity profile. Fluid then passes through the turbine, causing it to rotate at a speed proportional to fluid velocity. As each turbine blade passes through the magnetic field at the base of the transducer, an AC voltage pulse is generated in the pick-up coil. These pulses produce an output frequency proportional to the volumetric flow through the meter.



Features

- Flow ranges from 1,5 to 833 LPM
- Rugged stainless steel construction
- Meter bore sizes from 1/4" to 2"
- NPT, BSP or flange end connections from 1/4" to 2"
- Accuracy of $\pm 1\%$ of reading or $\pm 0,5\%$ and $\pm 0,2\%$ on request
- Electronic integration available with LCD Flow Monitor, F to I Intelligent Converter or the K-Factor Scaler
- Standart Manufacturer Calibration Certificate
- Optional RS-485 communication
- Optional Battery Powered Display

Specifications

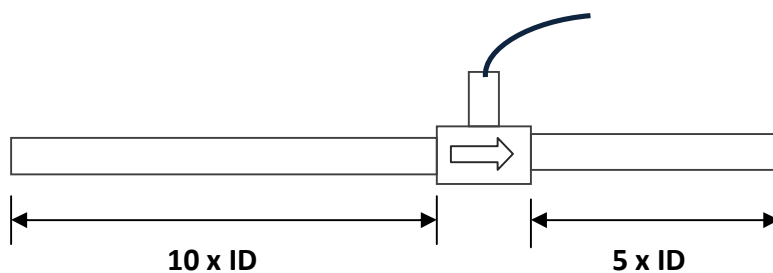
Materials of Construction	
Body	AISI 304 Stainless steel
Rotor	CD4MCU Stainless steel
Rotor Support	AISI 316 Stainless steel
Rotor Shaft	Tungsten carbide
Turndown Ratio	10 : 1 standart , 20 : 1 on request
Accuracy	±1% of reading, ±0,5 and ±0,2% on request
Repeatability	±0,1%
Calibration	Standart Manufacturer Calibration Certificate
Pressure Rating	400 bar max.
Temperature	-40°C...120°C , option 160°C
End Connection	Thread NPT – Female
Power Supply	12...24 VDC for pulse 24VDC for analog and LCD 3 VDC lithium battery for battery powerd LCD
Protection	IP65
Hazardous Area	Ex d II B T6 on request

Type and Flow Rate Tables

Type	Bore Size [mm]	End Connection	Flow Range[l/min]	Recommended Strainer [Mesh]
TDSS.006...	6	G 1/4"	1,5...10	80
TDSS.010...	10	G 3/8"	3...20	80
TDSS.015...	15	G 1/2"	10...100	60
TDSS.020...	20	G 3/4"	15...167	60
TDSS.025...	25	G 1"	20...210	40
TDSS.032...	32	G 1 1/4"	30...310	20
TDSS.040...	40	G 1 1/2"	40...420	20
TDSS.050...	50	G 2"	70...833	20

Installation

The Model TDHS Turbine Meter is simple to install and service. It operates in any orientation (horizontal to vertical) as long as the "flow direction" arrow is aligned in the same direction as the actual line flow. For optimum performance, the flow meter should be installed with a minimum of 10 diameters upstream straight pipe length and 5 diameters downstream straight pipe length.





Ordering

TDHS.								Description
Bore Sizes	XXX							Please see "Type and Flow Rate Tables"
	008							1/4"
	010							3/8"
	015							1/2"
	020							3/4"
	025							1"
	032							1 1/4"
	040							1 1/2"
	050							2"
Connection	D							Thread Type
		P					Pulse output	
		A					4-20 mA output	
		V					0-10 VDC	
		B					Lithium battery powered,with display,without output	
		L					4-20 mA output,with display	
		C					RS-485 communication,with display,24V DC	
		H					4...20 mA+HART protocol, with display,24V DC display	
			10				±1% of reading	
			05				±0,5% of reading	
			02				±0,2% of reading	
Range Type				S				Standart Flow Range
					S			AISI 304 SS
					L			AISI 316 L
					N			IP65
					E			Ex d II B T6 flameproof
					N			-40°C...120°C
					E			-40°C...160°C

Flow

Pressure

Level

Temperature

Control Valves

Bass Instruments®

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