UNIVERSAL
UFM
FLOW MONITORS

FLOW RANGE	.3 to 5500 GPM (1-2080 LPM)	TM SERIES
PRESSURE	5000 PSI STD 800 PSI VICTAULIC	1% ACCURATE

Turbine™

UNIVERSAL® Flow Monitors

Turbine In-Line Meters for Liquids

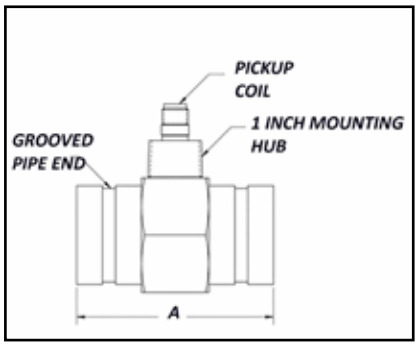
The TM Series Liquid Turbine flow meter is a highly- versatile product line that offers all stainless steel, precision-machined components with CD4MCu steel rotors. Available for flow ranges from 1/2" to 10".

TM FLOWMETER

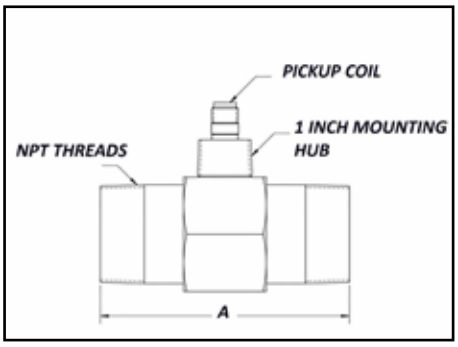
Performance Data

Accuracy	+/- 1.0% over flow range (except TM0038 which is +/- 2.0%)
Repeatability	+/- 0.1% over flow range
Operating Temperature	-100° F to +300° F
Connection	Flanged, Victaulic® (grooved), or threaded
Materials	
Meter Body	316 stainless steel
Rotor Supports	316 stainless steel
Meter Rotor	CD4MCu steel
Rotor Shaft	Tungsten carbide
Sleeve Bearings	Tungsten carbide
Certifications	NIST, CRN
Additional Information	Full line of economical Retrofit Kits are available

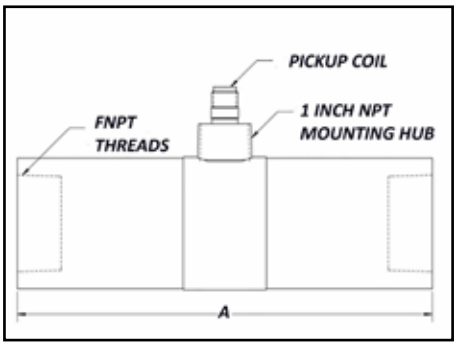
INSTALLATION DRAWING



GROOVED VICTAULIC TM



MALE TM



2 INCH FEMALE TM

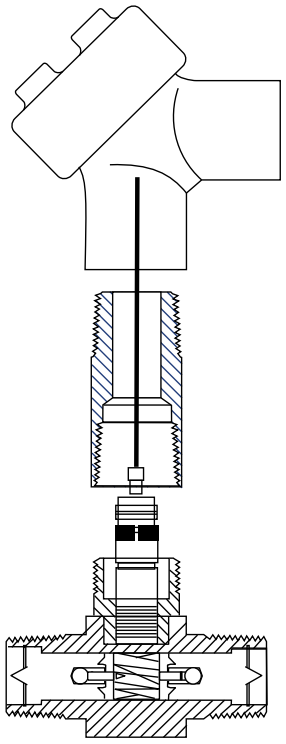
HOW TO ORDER Select appropriate symbols and build a model code number, as in example shown:

EXAMPLE 1: TM0050 - N

Part Number	End Connection Size (in)	Flow in GPM		Flow in LPM		A Dimension
		Min	Max	Min	Max	Inches
TM0038	1" X 1" Male NPT	0.3	3	1.1	11	4
TM0038x 1/2	½" X ½" Male NPT	0.3	3	1.1	11	4
TM0050	1" X 1" Male NPT	0.8	8	2.8	28	4
TM0050X 1/2	½" X ½" Male NPT	0.8	8	2.8	28	4
TM0075	1" X 1" Male NPT	2	15	7.6	57	4
TM0075X 1/2	½" X ½" Male NPT	2	15	7.6	57	4
TM0078	1" X 1" Male NPT	3	30	11.4	114	4
TM0078-VIC	1" X 1" Victaulic	3	30	11.4	114	4
TM0100	1" X 1" Male NPT	5	50	18.9	189	4
TM0100-VIC	1" X 1" Victaulic	5	50	18.9	189	4
TM0150	1½" X 1½" Male NPT	15	180	57	681	6
TM0150-VIC	1½" X 1½" Victaulic	15	180	57	681	6
TM0200L	2" X 2" Low Flow Male NPT	15	180	57	681	6
TM200L-VIC	2" X 2" Low Flow Victaulic	15	180	57	681	6
TM0200	2" X 2" Female NPT	40	400	151	1514	10
TM0200-VIC	2 ½" X 2 ½" Victaulic	40	400	151	1514	4
TM0300	3" Victaulic	60	600	227	2271	12.5
TM0400	4" Victaulic	120	1200	454	4542	12.5
TM0600	6" Victaulic	250	2500	946	9464	12.5
TM0800	8" Victaulic	350	3500	1325	13249	12.5
TM1000	10" Victaulic	550	5500	2082	20820	12.5

STANDARD OUTPUTS WITH NO DIGITAL VISUAL OR PROGRAMMABLE FLOW MONITOR	SYMBOL
Standard mag pickup sine wave good to 30 ft	N
In a Y Enclosure (conduit box)	NY
Hi Temp Magnetic Pick-up (-100F to +450F)	M
In a Y Enclosure (conduit box)	MY
Square wave Magnetic Pick-up with Pre-Amplifier (requires power)	P
In a Y Enclosure (conduit box)	PY
4-20 mA Analog Transmitter in Y Enclosure	X
Want 40 mA at lower than max possible? Express as % of max flow eg. 50% is X50	X50

Note: Y Enclosure is UL rated, Class I, Groups A, B, C & D Class II Groups E, F & G; CSA



Y ENCLOSURE MOUNTED ON TM METER

EXAMPLE 2: TM0100 - FML250-P-SM

PROGRAMMABLE FLOW MONITOR WITH DIGITAL VISUAL READOUT MOUNTED ON THE FLOW METER		
Added flow meter control box (see FML250 literature) with visual display and programming		
Note: units are pre-set with unit K-factor		
On unit mounting options fixed and on a swivel for better visibility		
Standard Pulse Output	FML250-P	FML250-P-SM
4-20mA Loop Output (4)	FML250-P4	FML250-P4-SM
Linearization (2-40 point)	FML250-PL	FML250-PL-SM
Pulse, 4-20mA, Linearization	FML250-P4L	FML250-P4L-SM
Temperature Compensation	FML250-PTC	FML250-PTC-SM

Note: FML250 Enclosure is NEMA 4 – CSA/UL

Note: Select with your maximum flow at 50% to 100% of the max flow listed above to have sufficient rangeability. Select by flow rate with user estimated Max Flow at midscale of max flow for the model so that there is sufficient rangeability for the meter, eg TM0050 for flows between 4 and 8 max.

Note: These meters are typically ordered with attached flow monitor display (See FML250 data sheet). By putting this FML250 part number at the end of the model selected, it will come installed on the meter and pre-configured for k factor Eg. TM0300-FML250-P-SM.

FML ENCLOSURE MOUNTED ON HA METER

Installation

1. Magnetic pickup coils included with each turbine meter at no extra charge
2. Turbine meter is linear and accurate over its designed operating range
3. Minimum recommended piping installation: 10 diameters upstream & 5 diameters
4. Locate valves or chokes downstream
5. For best meter performance and to avoid bearing wear, do not exceed maximum rated flow for long periods of time
6. Consult factory for warranty details

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