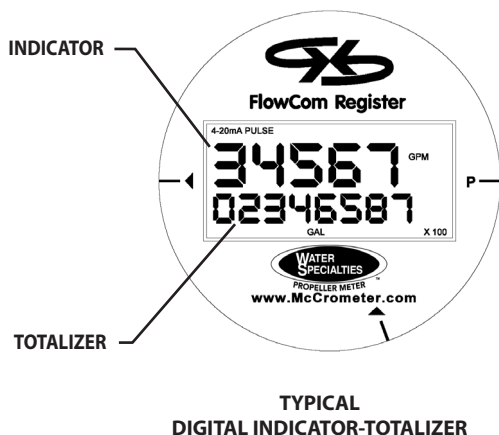




MODEL ML04-D
150 psi FLANGED TUBE METER
SOLID STATE ELECTRONIC PROPELLER METER
DIGITAL INDICATOR - TOTALIZER
SIZES 2" thru 48"



DESCRIPTION

MODEL ML04-D FLANGED TUBE METERS are manufactured to the highest standards. Materials used on all meters and flow ranges for the low velocity meter meet, or exceed, AWWA standard C704-02. The flanged end tube design permits use in a wide range of applications with up to 150 psi working pressure. Flanged ends are 150 lb. AWWA class D flat face steel flanges. Fabricated steel meter tubes have straightening vanes and are protected internally and externally with 12-15 mils of NSF approved, fusion bonded epoxy resin.

INSTALLATION is made similar to placing a short length of flanged end pipe in the line. The meter can be installed vertically, horizontally or inclined on suction or discharge lines. The meter must have a full flow of liquid for proper accuracy. Fully opened gate valves, fittings or other obstructions that tend to set up flow disturbances should be a minimum of five pipe diameters upstream and one pipe diameter downstream from the meter. An optional kit of adapters with up to 50 feet of cable is available to locate the indicator-totalizer at remote locations.

PROPELLER is magnetically coupled with the electronic sensor through the sealed gearbox. This completely eliminates water entering the meter assembly, and eliminates all moving parts except for the propeller. The propeller is a conical shaped three bladed propeller, injection molded of thermoplastic material resistant to normal water corrosion and deformity due to high flow velocities.

BEARING in propeller is a water lubricated ceramic sleeve and spindle bearing system with a ceramic/stainless spindle. Dual ceramic thrust bearings, standard on all meters, handle flows in both forward and reverse directions. The bearing design promotes extended periods of maintenance free propeller operation.

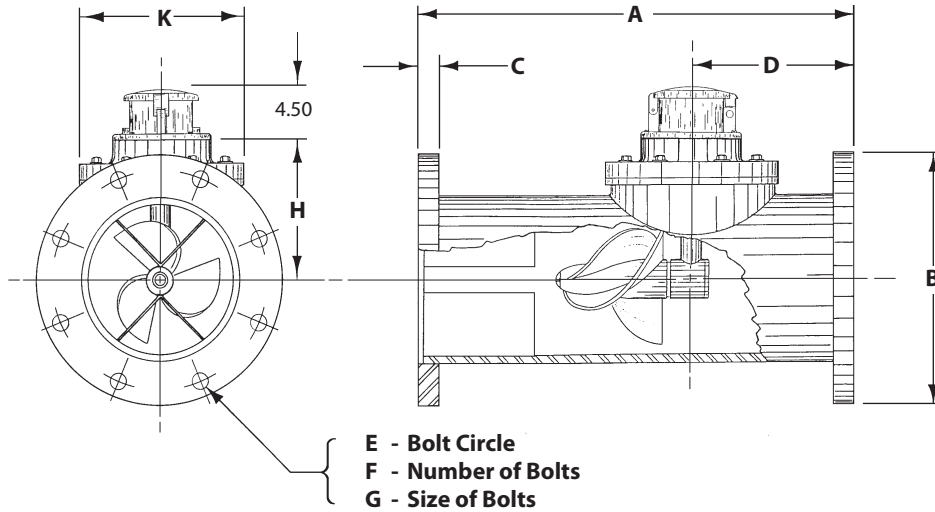
DIGITAL INDICATOR-TOTALIZER has a non-volatile EEPROM memory to store totalizer count (updated hourly while running). Features a large two line display. Five digit top line indicates flow rate, and eight digit bottom line provides volumetric flow data. Indicator is available in 22 different units, including GPM, CFS, MGD. Totalizer is available in 20 different units, including Gallons, AF, CF. Units of measurement are user-selectable. Battery life is 6 - 10 years. Housing is NEMA 4X rated.

Available with optional 4-20mA and/or pulse output.

SPECIFICATIONS

ACCURACY	Plus or minus 2% of actual flow within the range specified for each meter size.
PRESSURE RANGE	Up to 150 PSI maximum working pressure.
TEMPERATURE RANGE	140° F Maximum. Consult factory for special construction for higher temperatures.
MINIMUM FLOWS	As shown for each meter size and construction are required for accurate registration. See flow chart.
MAXIMUM FLOWS	As shown for each meter size and construction are rated for continuous operation. See flow chart.
INTERMITTENT FLOWS	As shown for each meter size are rated for 10% to 15% of the total time the meter is operating. Consult factory for High Velocity construction when intermittent flows are higher than shown on flow chart and/or when longer operating periods are required.
MATERIALS	Used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. PROPELLER MAGNET - permanent ceramic type. PROPELLER BEARING - ceramic sleeve type. PROPELLER SPINDLE - ceramic sleeve/stainless steel. PROPELLER - injection molded thermoplastic. GEARBOX - stainless steel. SEPARATOR - stainless steel. METER HEAD BOLTS - stainless steel (2" - 20"), plated steel (24" - 48"). METER HEAD - cast iron or fabricated steel, NSF approved fusion epoxy coated. METERTUBE - fabricated steel with straightening vanes and coated inside and out with 12-15 mils of NSF approved, fusion epoxy by the fluidized bed method.
OPTIONAL EQUIPMENT	Remote mounting kit with up to 50 feet of cable, totalizer extensions, digital transmitter, and a wide range of controls and instruments for indicating, totalizing and recording flow data for each meter. Special constructions and materials are available upon request.
ORDERING INFO	Must be specified by the customer and includes: Minimum & maximum flow ranges Temperature of meter environment Indicator scale & units Totalizer dial units Type of materials and construction Optional equipment desired

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METER & PIPE SIZE	*LOW VELOCITY CONSTRUCTION MIN. - MAX.	FLOW RANGES, GPM STANDARD CONSTRUCTION MIN. - MAX. - INT.	HIGH VELOCITY CONSTRUCTION MIN. - MAX.	DIMENSIONS (INCHES)									EST SHIPPING WEIGHT POUNDS
				A	B	C	D	E	F	G	H	K	
2	35-120	40-160-225	N/A	18 ¹ / ₄	6	5/8	7 ¹ / ₈	4 ³ / ₄	4	5/8	5 ¹ / ₄	9	70
3	40-250	45-250-350	N/A	18	7 ¹ / ₂	5/8	7	6	4	5/8	5 ¹ / ₄	9	70
4	50-500	55-500-700	200-700	18	9	5/8	7	7 ¹ / ₂	8	5/8	5 ¹ / ₄	9	80
6	90-1200	120-1200-1500	300-1500	22	11	11/16	9	9 ¹ / ₂	8	3/4	6 ¹ / ₄	9	150
8	100-1500	150-1500-2000	400-2500	24	13 ¹ / ₂	11/16	9	11 ³ / ₄	8	3/4	7 ¹ / ₄	9	170
10	125-2000	180-2000-3000	500-3500	26	16	11/16	10	14 ¹ / ₄	12	7/8	8 ¹ / ₂	11	230
12	150-2800	200-3000-3500	800-5000	28	19	13/16	10	17	12	7/8	9 ¹ / ₂	11	288
14	250-3750	300-4000-4500	1000-6000	42	21	15/16	12	18 ³ / ₄	12	1	10 ¹ / ₂	13 ¹ / ₂	396
16	350-4750	400-5000-6000	1200-7500	48	23 ¹ / ₂	1	12	21 ¹ / ₄	16	1	11 ¹ / ₂	13 ¹ / ₂	547
18	N/A	700-6000-7500	1500-9000	54	25	1 ¹ / ₁₆	15	22 ³ / ₄	16	1 ¹ / ₈	12 ¹ / ₂	13 ¹ / ₂	665
20	N/A	850-8000-9000	2000-12000	60	27 ¹ / ₂	1 ¹ / ₈	15	25	20	1 ¹ / ₈	13 ¹ / ₂	13 ¹ / ₂	780
24	N/A	1000-10000-13500	3000-15000	72	32	1 ¹ / ₄	18	29 ¹ / ₂	20	1 ¹ / ₄	17 ¹ / ₂	21	1250
30	N/A	1800-15000-21000	4000-25000	84	38 ³ / ₄	1 ³ / ₈	18	36	28	1 ¹ / ₄	20 ¹ / ₂	21	2010
36	N/A	2000-20000-30000	5000-35000	96	46	1 ⁵ / ₈	20	42 ³ / ₄	32	1 ¹ / ₂	23 ¹ / ₂	21	2840
42	N/A	3000-30000-40000	6000-50000	96	53	1 ³ / ₄	24	49 ¹ / ₄	36	1 ¹ / ₈	28	32	4300
48	N/A	5500-35000-50000	7000-60000	96	59 ¹ / ₂	1 ⁷ / ₈	24	56	44	1 ⁵ / ₈	31	32	4730

Standard construction will be supplied for all main line meters unless special flow range, materials, or construction are required.

* Low velocity (LV) construction has the same low and maximum flow rates as AWWA C704.



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