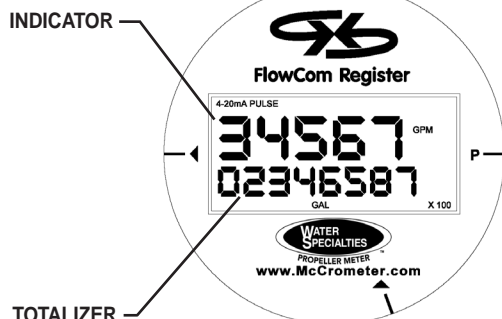




**MODEL ML12-D-GE**  
 150 psi GROOVED END TUBE METER  
 SOLID STATE ELECTRONIC PROPELLER METER  
 DIGITAL INDICATOR-TOTALIZER  
 SIZES 3" thru 48"



TYPICAL  
 DIGITAL INDICATOR-TOTALIZER



#### DESCRIPTION

**MODEL ML12-D GROOVED END 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 plain end tube design permits use in a wide range of applications with up to 150 psi working pressure. Fabricated steel meter tubes have straightening vanes and are protected internally and externally with 12-15 mils of fusion epoxy resin.

**INSTALLATION** is made similar to placing a short length of plain end pipe in the line by using one of the many types of pipe couplings available. The meter can be installed in any of the following positions: 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 remote mounting kit with up to 100 feet of cable is available to locate the digital 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 steel 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.

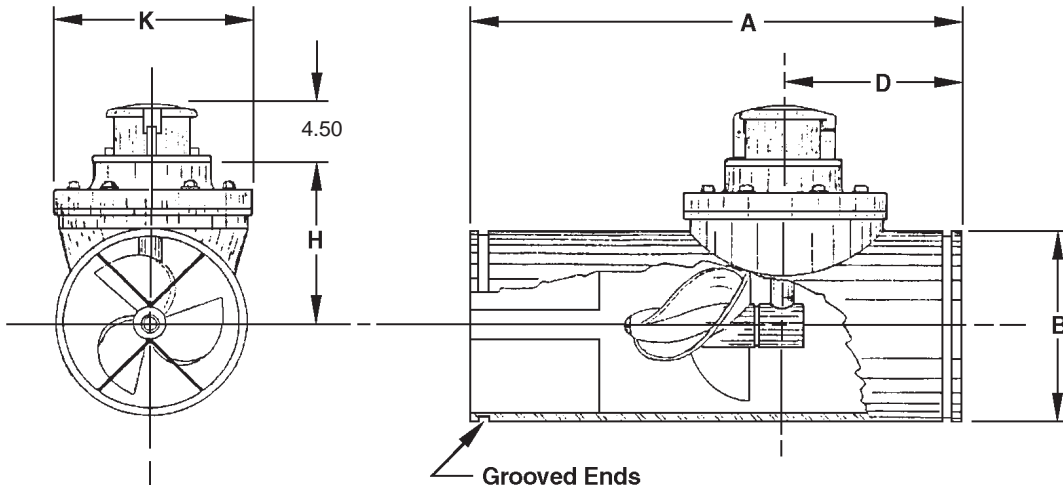
**DIGITAL INDICATOR-TOTALIZER** has a non-volatile EEPROM memory to store totalizer count (updated hourly while running). Features a large two line display. Five digit top line indicates flow rate, and eight digit bottom line provides volumetric flow data. Indicator is available in 22 different units, 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

<b>ACCURACY</b>	Plus or minus 2% of actual flow within the range specified for each meter size.
<b>PRESSURE RANGE</b>	Up to 150 PSI maximum working pressure.
<b>TEMPERATURE RANGE</b>	140° F Maximum. Consult factory for special construction for higher temperatures.
<b>MINIMUM FLOWS</b>	As shown for each meter size and construction are required for accurate registration. See flow chart.
<b>MAXIMUM FLOWS</b>	As shown for each meter size and construction are required for accurate registration. See flow chart.
<b>INTERMITTENT FLOWS</b>	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.
<b>MATERIALS</b>	used in construction are chosen to minimize the corrosive effects of the liquids measured by the meter assembly. <b>MAGNETS</b> - permanent ceramic type. <b>PROPELLER BEARING</b> - ceramic sleeve type. <b>PROPELLER SPINDLE</b> - ceramic coated stainless steel. <b>PROPELLER</b> - injection molded thermoplastic. <b>GEARBOX</b> - cast bronze. <b>SEPARATOR</b> - stainless steel. <b>METER HEAD BOLTS</b> - stainless steel (3"-20"), plated steel (24"-48"). <b>METER HEAD</b> - cast iron or fabricated steel, fusion epoxy coated. <b>METER TUBE</b> - fabricated steel with straightening vanes and coated inside and out with 12-15 mils of fusion epoxy by the fluidized bed method.
<b>OPTIONAL EQUIPMENT</b>	Remote mounting kit with up to 100 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.
<b>FCC CERTIFICATION</b>	The digital indicator-totalizer has been tested and found to comply with the limits for Class A digital device pursuant to Part 15 of the FCC Rules.
<b>ORDERING INFO</b>	Must be specified by the customer and includes: minimum and maximum flow ranges, temperature of meter environment, indicator scale & units, type of materials and construction, and 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					EST. SHIPPING WEIGHT POUNDS
				A	B	D	H	K	
3	40-250	45-250-350	N/A	17	3½	6½	5 <sup>3</sup> / <sub>16</sub>	9	45
4	50-500	55-500-700	200-700	17	4½	6½	5 <sup>3</sup> / <sub>16</sub>	9	60
6	90-1200	120-1200-1500	300-1500	21	6 <sup>5</sup> / <sub>8</sub>	8½	6¼	9	95
8	100-1500	150-1500-2000	400-2500	23	8 <sup>5</sup> / <sub>8</sub>	8½	7¼	9	115
10	125-2000	180-2000-3000	500-3500	25	10¼	9½	8¼	11	170
12	150-2800	200-3000-3500	800-5000	27	12¼	9½	9½	11	195
14	250-3750	300-4000-4500	1000-6000	41	14	11½	10½	13½	295
16	350-4750	400-5000-6000	1200-7500	47	16	11½	11½	13½	435
18	450-5625	700-6000-7500	1500-9000	53	18	14½	12½	13½	520
20	550-6875	850-8000-9000	2000-12000	59	20	14½	13½	13½	610
24	800-10000	1000-10000-13500	3000-15000	71	24	17½	17½	21	1010
30	1200-15000	1800-15000-21000	4000-25000	83	30	17½	20½	21	1660
36	1500-20000	2000-20000-30000	5000-35000	95	36	19½	23½	21	2290
42	2000-28000	3000-30000-40000	6000-50000	95	42	23½	27	32	3500
48	2500-35000	5500-35000-50000	7000-60000	95	48	23½	30	32	3780

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 C704-02.