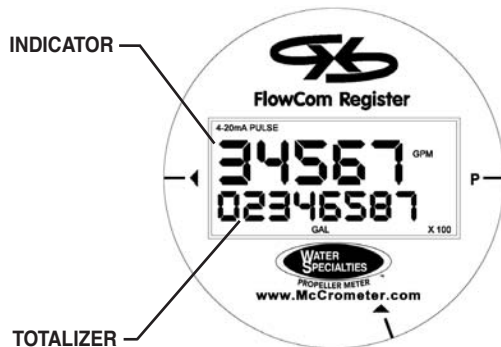




**MODEL VF30-D**  
 VERTICAL UPFLOW TEE TUBE METER  
 SOLID STATE ELECTRONIC PROPELLER METER  
 DIGITAL INDICATOR - TOTALIZER  
 SIZES 4" thru 20"



TYPICAL  
 DIGITAL INDICATOR-TOTALIZER



#### DESCRIPTION

**MODEL VF30-D VERTICAL UPFLOW TEE TUBE METERS** are designed to meet AWWA specifications. The flanged end tee design permits use in a wide range of applications with up to 150 psi working pressure. The base and side outlets 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 fusion epoxy resin.

**INSTALLATION** is made to any vertical discharge line with the proper size flange connection or to vertical discharge concrete turnouts with the proper anchor bolts. The meter must be installed upright for a full flow of liquid through the pipe to assure 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 from the meter and one pipe diameter downstream from the meter. An optional kit of adapters with up to 100 feet of cable is available to locate the indicator-totalizer at remote locations.

**PROPELLER** is magnetically coupled with the electronic sensor through the sealed separator assembly. 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 bearing that rides on a ceramic coated 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.

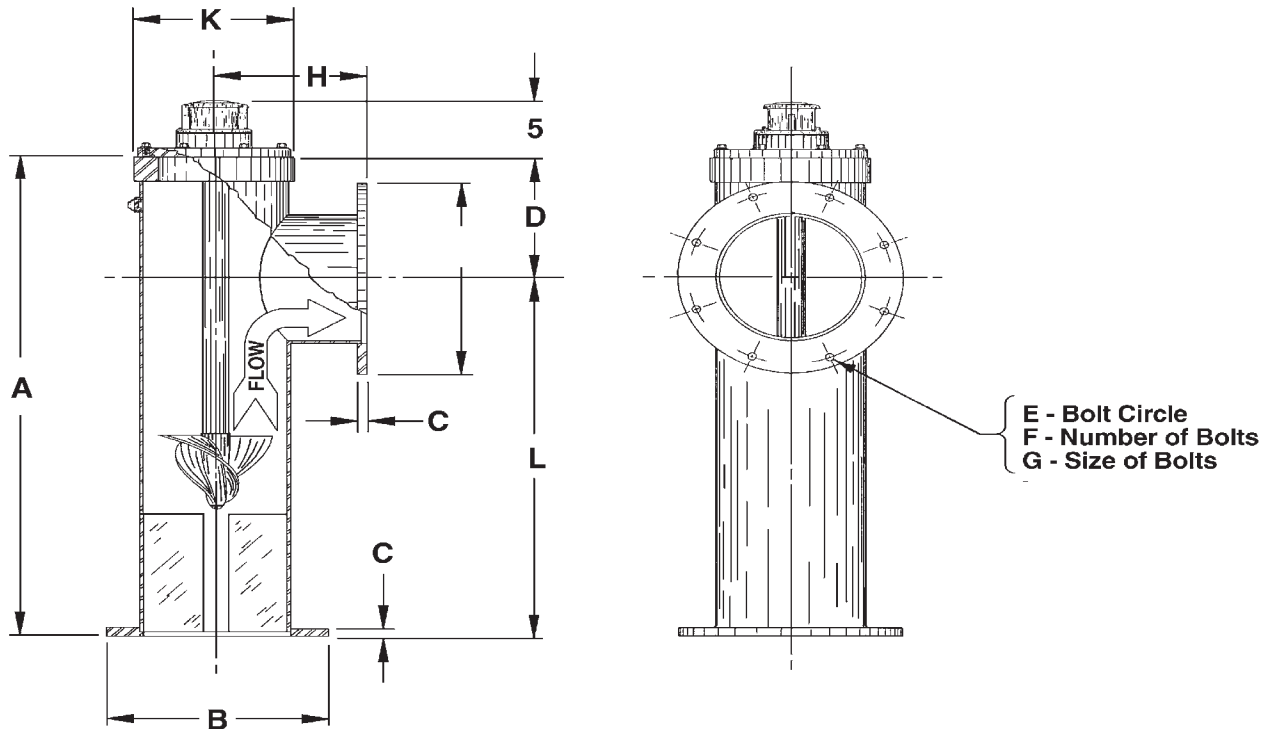
**DIGITAL INDICATOR-TOTALIZER** has a non-volatile EEPROM memory to store totalizer count (updated hourly while running). Features a large two line display. Five digit top line indicates flow rate, and eight digit bottom line provides volumetric flow data. Indicator is available in 22 different units, 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. NOTE: Minimum flow will be higher when auxiliary equipment is added.   |
| <b>MAXIMUM FLOWS</b>      | As shown for each meter size and construction are rated for continuous operation. 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.<br>PROPELLER MAGNET - permanent ceramic type<br>PROPELLER BEARING - ceramic sleeve type<br>PROPELLER SPINDLE - ceramic coated stainless steel<br>PROPELLER - injection molded thermoplastic<br>DROP-PIPE - stainless steel<br>SEPARATOR - stainless steel<br>SHAFTS AND BOLTS - stainless steel<br>METER HEAD - cast iron, NSF approved fusion epoxy coated.<br>METER TUBE - fabricated steel with 12-15 mils of NSF approved fusion epoxy resin. |
| <b>OPTIONAL EQUIPMENT</b> | Remote mounting kit, with up to 100 feet of cable, 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>ORDERING INFO</b>      | Must be specified by the customer and includes: minimum & maximum flow ranges, temperature of meter environment, indicator scale and units, totalizer dial units, type of materials and construction, and optional equipment desired.  |

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| METER & PIPE SIZE | FLOW RANGES, GPM |      |      | DIMENSIONS |     |       |     |     |    |      |    |    |     | SHIPPING WEIGHT POUNDS |
|-------------------|------------------|------|------|------------|-----|-------|-----|-----|----|------|----|----|-----|------------------------|
|                   | MIN.             | MAX. | INT. | A          | B   | C     | D   | E   | F  | G    | H  | K  | L   |                        |
| 4                 | 55               | 500  | 700  | 18         | 9   | 5/8   | 4½  | 7½  | 8  | 5/8  | 5  | 6  | 13½ | 180                    |
| 6                 | 130              | 1200 | 1500 | 40         | 11  | 11/16 | 10  | 9½  | 8  | 3/4  | 9  | 11 | 30  | 190                    |
| 8                 | 170              | 1500 | 2000 | 40         | 13½ | 11/16 | 10  | 11¾ | 8  | 3/4  | 10 | 11 | 30  | 240                    |
| 10                | 200              | 2000 | 3000 | 40         | 16  | 11/16 | 10  | 14¼ | 12 | 7/8  | 11 | 11 | 30  | 330                    |
| 12                | 220              | 3000 | 3500 | 40         | 19  | 13/16 | 10  | 17  | 12 | 7/8  | 12 | 11 | 30  | 440                    |
| 14                | 320              | 4000 | 4500 | 40         | 21  | 15/16 | 10  | 18¾ | 12 | 1    | 14 | 11 | 36  | 520                    |
| 16                | 420              | 5000 | 6000 | 54         | 23½ | 1     | 11½ | 21¼ | 16 | 1    | 15 | 11 | 42½ | 620                    |
| 18                | 720              | 6000 | 7500 | 60         | 25  | 1¹/₁₆ | 12  | 22¾ | 16 | 1¹/₈ | 18 | 11 | 48  | 720                    |
| 20                | 870              | 8000 | 9000 | 66         | 27½ | 1¹/₈  | 14  | 25  | 20 | 1¹/₈ | 20 | 11 | 52  | 820                    |

**TechnoFlo** *Your Flow Meter Source*

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