MODEL VF28-D VERTICAL UPFLOW METER

SOLID STATE ELECTRONIC PROPELLER METER
DIGITAL INDICATOR - TOTALIZER
SIZES 4" thru 20"

DESCRIPTION
MODEL VF28-D VERTICAL UPFLOW METERS are designed to meet AWWA specifications. The bolt-on design permits use in a wide range of applications with up to 150 psi working pressure. The mounting flange conforms to ANSI class 125 drilling. It is necessary, upon ordering, to furnish the I.D. dimension of the pipe the meter is to be mounted on for calibration purposes.

INSTALLATION is made by bolting the meter assembly to an appropriate cast iron or fabricated steel tee. These tees usually replace an elbow in existing systems such as on the suction or discharge side of a centrifugal pump of laterals in irrigation systems. 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 ten pipe diameters upstream and one pipe diameter downstream from the meter. Installations with less than ten pipe diameters of straight pipe require straightening vanes. Meters with straightening vanes require at least five pipe diameters upstream 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 drop-pipe. This completely eliminates water entering the meter assembly, as well as the need for any packing gland. 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. Bearings within the sealed meter mechanism are shielded precision stainless steel bearings and are factory lubricated for the life of the meter.

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. NOTE: Minimum flow will be higher when auxiliary equipment is added.
- MAXIMUM FLOWS: As shown for each meter size and construction are required for accurate registration. 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. MAGNETS - permanent ceramic type. INTERIOR BEARINGS - shielded stainless steel. PROPELLER BEARING - ceramic sleeve type. PROPELLER SPINDLE - ceramiccoated stainless steel. PROPELLER - injection molded thermoplastic. DROP-PIPE - stainless steel. SEPARATOR - stainless steel. BOLTS - stainless steel. METER HEAD - cast iron or fabricated steel, fusion epoxy coated.

OPTIONAL EQUIPMENT: Remote mounting kit, with up to 100 feet of cable, 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 and units, totalizer dial units, type of materials and construction, I.D. of pipe and optional equipment desired.
## MODEL VF28-D

**VERTICAL UPFLOW METER**
**SOLID STATE ELECTRONIC PROPELLER METER**
**DIGITAL INDICATOR-TOTALIZER**
**SIZES 4” thru 20”**

<table>
<thead>
<tr>
<th>METER &amp; PIPE SIZE</th>
<th>FLOW RANGES, GPM</th>
<th>DIMENSIONS</th>
<th>SHIPPING WEIGHT POUNDS</th>
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Please specify pipe I.D. at propeller location

- **E** - Bolt Circle
- **F** - Number of Bolts
- **G** - Size of Bolts

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