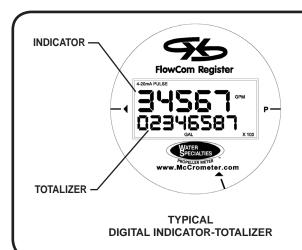


## **MODEL VF28-D**

**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

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 **TEMPERATURE** RANGE Up to 150 PSI maximum working pressure. 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 - ceramic coated stainless

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

Remote mounting kit, with up to 100 feet of

**EQUIPMENT** 

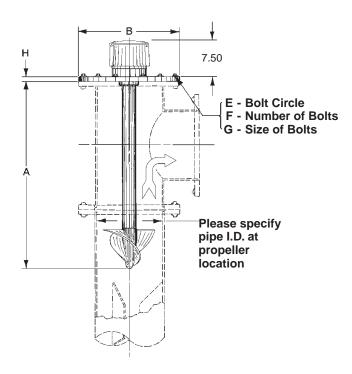
digital transmitter, and a wide range of controls and instruments for indicating, totalizing, and recording flow data for each meter. Special constructions and materials are available upon request.

**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.

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DIGITAL INDICATOR-TOTALIZER
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METER	FLOW RANGES,GPM			DIMENSIONS						SHIPPING
& PIPE SIZE	MIN.	MAX.	INT.	Α	В	E	F	G	Н	WEIGHT POUNDS
4	55	500	700	28	9	7½	8	5/8	5/8	60
6	130	1200	1500	28	11	9½	8	3/4	11/16	75
8	170	1500	2000	28	13½	11¾	8	3/4	11/16	90
10	200	2000	3000	28	16	14¼	12	7/8	11/16	110
12	220	3000	3500	28	19	17	12	7/8	13/16	140
14	320	4000	4500	30	21	18¾	12	1	15/16	175
16	420	5000	6000	34	23½	21¼	16	1	1	200
18	720	6000	7500	36½	25	22¾	16	1 <sup>1</sup> /8	1 <sup>1</sup> /16	230
20	870	8000	9000	40½	27½	25	20	1 <sup>1</sup> /8	1 <sup>1</sup> /8	260