WATER SPECIALTIES™ PROPELLER METER

MODEL VF32D

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

SPECIFICATIONS

METER shall be a velocity propeller type, solid state electronic, sealed housing, vertical down flow meter for 150 psi working pressure. It shall comply with the applicable provisions of AWWA except for the higher standard required in this specification. In the event of conflict, the specification herein shall prevail. The meter shall be a **WATER SPECIALTIES** _____ inch **MODEL VF32D** with a digital indicator having a range of 0 to _____ and shall be equipped with a six digit digital totalizer reading in units of _____ and shall be accurate within ±2% of true flow within a range of _____ to _____ GPM or an approved equal. The meter assembly shall be constructed as follows:

METER HEAD shall be connected to the tube by means of a flanged, flat gasket sealed connection with stainless steel bolts designed for easy removal for inspection or repair. The meter head shall be blasted to near white metal and coated with 12-15 mils of fusion coating, applied by the fluidized bed method.

DROP-PIPE AND SEPARATOR shall be a stainless steel factory sealed unit having four straightening vanes welded to the drop pipe. However, parts shall be coupled so with proper instructions the parts can be replaced in the field without returning the meter to the factory. The electronic sensor housed in the drop-pipe shall be magnetically driven from the propeller ceramic sleeve magnetic and be isolated from the water flow by means of an o-ring sealed housing. This completely eliminates water entering the meter assembly, and eliminates all moving parts except for the propeller. Vertical shafts will not be accepted.

PROPELLER shall utilize a water lubricated ceramic sleeve and spindle bearing system. The stainless steel/ceramic spindle on which the propeller is mounted shall be parallel to the direction of the water flow in the pipe. Dual ceramic thrust bearings shall be standard on all meters to handle flows in both the forward and reverse directions. The propeller shall be a conical shaped, three bladed propeller, injection molded of thermoplastic material, resistant to normal water corrosion and deformity due to high flow velocities.

DIGITAL INDICATOR-TOTALIZER shall be electronically driven by a sensor output directly from, and proportional to, the rotation of the propeller. The unit shall have a non-volatile memory so total flow will not be lost during battery change or failure. The unit shall be equipped with a 3.6VDC lithium battery which is replaceable. The battery life will be 6 to 10 years. The indicator-totalizer shall continue to function during battery changing. The five digit indicator shall have 0.42" high numbers and a range of 0 to _____ (specify indicator range and units) and eight digit totalizer with 0.27" high numbers reading in units of _____ (specify totalizer units) and is accurate and linear within ±0.25%, of reading, at all points on the scale when operated between -4° and 158° F. The totalizer shall be resettable from the panel or disabled permanently. The unit shall be encapsulated to protect it from moisture, and installed in an O-ring sealed bonnet with padlock hasp. Adapters shall be available to locate the digital indicator-totalizer-transmitter at remote locations up to 100 feet away.

PARTS & SERVICE: Supplier must have test facilities, spare parts, personnel to maintain, instruct, train or whatever is necessary to assure meters will be maintained throughout the guarantee period.

VOLUMETRIC TESTING of all meters must be performed and approved prior to shipment. The completed meter head assembly will be accuracy tested. The testing will be conducted in accordance to AWWA testing procedure, rates, and volume. The amount of water used to conduct the test shall be left on the totalizer. Prior to shipping, a tag shall be attached to the meter showing the totalizer reading after testing. The test facility must be certified annually to an accuracy of +-0.25% and be traceable to the National Institute of Standards and Technology. If desired, the test can be witnessed by the customer or their selected agent. Certified accuracy test records will be furnished at no charge.

FCC CERTIFICATION: Supplier must have digital indicator-totalizer independently tested for compliance to FCC regulations. The test results must indicate that the electromagnetic emissions from the units are within the Class A Specification limits defined by the Code of Federal Regulations Title 47, Part 15, Subpart B.

ONE MANUFACTURER shall make all meter sizes and styles required for this contract. The meters shall be manufactured and tested in the U.S.A. and shall be of design in production in the U.S.A. for at least 5 years.

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