Specification Sheet

R1000 Propeller Meter

Description

Operation. The R1000 Propeller meter line uses a specially designed propeller type turbine that presents a relatively low cross section to the flow. The turbine design, combined with the constant area body cross section, results in a very low pressure drop. The unobtrusive design of the measuring device also means that the R1000 is less susceptible to damage from debris than Woltmann style meters that are often used in irrigation applications. The wide range of meter sizes provides an extended flow range to meet most irrigation metering needs. A single measuring chamber fits all sizes of meter housings.

Installation. The meter may be installed horizontally, vertically, or any orientation in between. The meter shall be installed with the direction of the flow as indicated by the arrow cast in the meter case. Note: The meter must have 10 straight pipe diameters ahead of the meter and 5 straight pipe diameters after to insure proper flow through the meter.

Applications. This meter is for use with cold water up to 120°F (50°C) and working pressures up to 150 psi. The meter will register accurately within the flow ranges listed and at the accuracy listed. Accuracy tests are made prior to shipment so no adjustments need to be made prior to installation.

Construction. The meter consists of a main case, a measuring element, and a magnetically driven register assembly with a brass cover. The main case is cast iron, finished with an epoxy coating both inside and out.

Sizes 2" - 10"

Specifications

Size	2"	3"	4"	6"	8"	10"
Performance						
Min Flow GPM ± 5%	5	14	21	53	88	141
Low Flow GPM ± 2%	20	53	79	198	330	530
Rec Cont Flow GPM ± 2%	132	352	528	1320	2200	3520
Peak Flow GPM ± 2%	308	660	1100	2200	3960	5280
Pressure Loss Peak (psi)	1.7	1.5	0.7	0.4	0.7	0.4
Max Operating Pressure (psi)	150	150	150	150	150	150
Max Operating Temp (°F)	120	120	120	120	120	120
Registration						
Smallest Readable Amt (USG)	10	10	10	10	10	10
Capacity (Billions USG)	10	10	10	10	10	10
Smallest Readable Amt (m^3)	0.005	0.005	0.005	0.005	0.005	0.05
Capacity (Million m^3)	10	10	10	10	10	100
Physical Description						
Laying Length (Inches)	7.875	8.875	9.875	11.75	13.75	17.75
Weight (Lbs.)	24	33	42	66	106	187
Low Seped Reed Pulser						
US Gallons per Pulse	1000	1000	1000	1000	1000	10000
Cubic Meters per Pulse	1	1	1	1	1	10
High Speed Reed Pulser						
US Gallons per Pulse	1	10	10	10	10	100
Cubic Meters per Pulse	10	100	100	100	100	1000

Materials	
Body Case	Epoxy Coated Cast Iron
Top Plate	Brass
Gasket/O-ring	EPDM
Rotor	Plastic
Register	Plastic (Makrolon)
Register Housing	Brass

The register cover includes a drilled boss that can accomodate a padlock to prevent tampering.

Register. The six digit register is available in both USG and metric (cubic meter) registration. The register housing is completely separate from the measuring element, insuring a dry register.

Connections. The propeller meter incorporates round raised-face flanged connections conforming to ANSI specifications. Maximum recommended operating pressure is 150 psi.

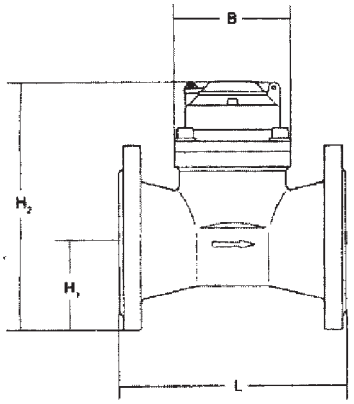
Dimensions in Inches (mm)

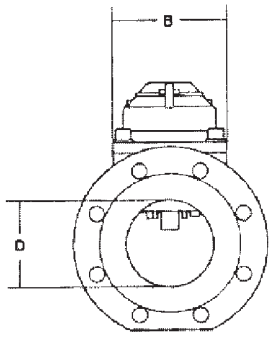
Meter Size	L	B	H_1	H_2
2"	7.875 (200)	5.125 (130)	2.835 (72)	5.125 (130)
3"	8.875 (225)	5.125 (130)	3.750 (95)	9.875 (250)
4"	9.875 (250)	5.125 (130)	4.125 (105)	10.250 (260)
6"	11.750 (300)	5.125 (130)	5.315 (135)	11.375 (290)
8"	13.750 (350)	5.125 (130)	6.300 (160)	12.375 (315)
10"	17.750 (450)	5.125 (130)	7.875 (200)	14.000 (355)

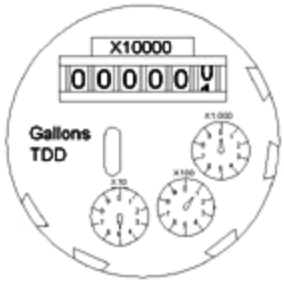
Pulser. **(Low Speed)** An optional reed switch pulser may be ordered with the meter or may be retrofitted at any time. The pulser outputs one pulse per 1000 gallons or one pulse per 1000 liters (one pulse per 10,000 liters for the 10" meter), depending on the registration. The maximum voltage for the pulser is 24 VDC. Maximum current is 100 mA and the internal resistance is 100 Ohms. Approximately 10 feet of cable is supplied with the pulser.

Pulser. (High Speed) (opto-electronic -- PV14) This infrared optical sensor is powered by 12 to 24 VDC, 15/25 mA max. power from an external source, 15 ohm line resistance core. The pulse is provided at a 50/50 open/closed ratio. This is a three-wire system, red wire +12/24 VDC Power, white wire-signal, black wire-ground. The following are the outputs per size:

2"	1 pulse = 1 US Gallon/10 Litres
3"-8"	1 pulse = 10 US Gallon/100 Litres
10"	1 pulse = 100 US Gallon/1000 Litres







The company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice. These products have been manufactured with current technology and in accordance with applicable AWWA Standards.

AMCO

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