



# FMD Series Landscape Water Meters

## Manage what you measure!

### Introduction

In order to effectively manage water use, it is necessary to measure it. Contractors realize this and are increasingly calling for flow measurement on irrigation systems.

Local municipal and state regulations, water district policies, and Green Building Code LEED, Sustainable SITES Initiative, and the EPA's WaterSense program call for water flow measurement because of increasing water costs. Regions where water is naturally scarce, under pressure by a growing population, or is restricted by environmental laws tend to be where water agencies employ tiered water rates or increase property sewer usage fees.

The FMD Series Landscape Water Meters address this industry need for flow measurement while overcoming two common objections:

- 1) Irrigation flow sensors / meters in the market today are relatively expensive.
- 2) Inability of current flow meters / sensors to measure low flow with high accuracy.

### Features and Benefits

- Lower cost than comparable brass flow meters and most plastic flow sensors.
- Passive management of irrigation using the meter's register dial.
- Delivers precise accuracy with flow ranges from 0.25 gpm to 160 gpm.
- Landscape Water Meter allows the property manager to avoid higher costs associated with tiered water rates.
- Landscape Water Meters are an integral part of an overall water efficient irrigation system.
- Supports California AB1881 and 20/20, LEED, Sustainable SITES Initiative, and the EPA WaterSense Program.
- Rebates offered by Water Agencies.
- Satisfies NSF/ANSI standard 61 Annex G.

### Models

- Landscape Water Meter sizes include 5/8", 3/4", 1", 1 1/2", 2".



### Mechanical Properties

- Multi-Jet Totalizing Landscape Water Meter with analog register dial readout (minimum volumetric resolution of 0.1 gallons).
- Brass body and glass-filled nylon construction provide maximum protection against high pressure surges, physical damage and corrosion.
- Not to be used with an unfiltered water source containing potential debris (lakes, ponds, wells, or other unfiltered sources).

### Specifications

The Landscape Water Meter shall be a multi-jet dry type vane wheel type water meter.

The register housing shall be constructed of PC, Stainless Steel, Rubber, Glass, ABS, and SiO<sub>2</sub>. The meter shall have a sealed dry dial register ensuring clear reading.

The impeller shall be constructed of POM, SiO<sub>2</sub>, Magnet, and PA (DN25-50). The meter shall have an internal strainer for inlet filtration protection.

The Landscape Water Meter shall be capable of operating in continuous line pressures of 20-150 psi with burst pressures of 600 psi, liquid temperatures up to 80° F, and air temperatures of 105° F.

The Landscape Water Meter body shall be ECO Brass with male NPSM casing threads, ECO brass couplings to convert from straight NPSM and tapered NPT thread of the published outlet size.

The Rain Bird FMD Series Landscape Water Meters shall be distributed by Rain Bird Corporation, Glendora, California.

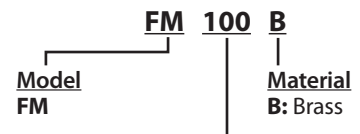
### Maintenance

- Landscape Water Meters are not serviceable.

### Winterization

- Exposing the Landscape Water Meter, full of water, to temperatures below freezing can lead to permanent damage. To winterize the meter, allow it to drain through a downstream drain valve. Do not connect an air source upstream of the meter to evacuate water. The Landscape Water Meter is not designed to survive prolonged high velocity air flow associated with winterization "blow outs".

### How to Specify/Order



#### Landscape Water Meter Size

**0625:** 5/8" with coupling inlet dimension x 3/4" NPT outlet.

**075:** 3/4" with coupling inlet dimension x 1" NPT outlet.

**100:** 1" with coupling inlet dimension of 1" NPT.

**150:** 1 1/2" with coupling inlet dimension of 1 1/2" NPT.

**200:** 2" with coupling inlet dimension of 2" NPT.

## Rain Bird FMD Series Landscape Water Meters Suggested Operating Range

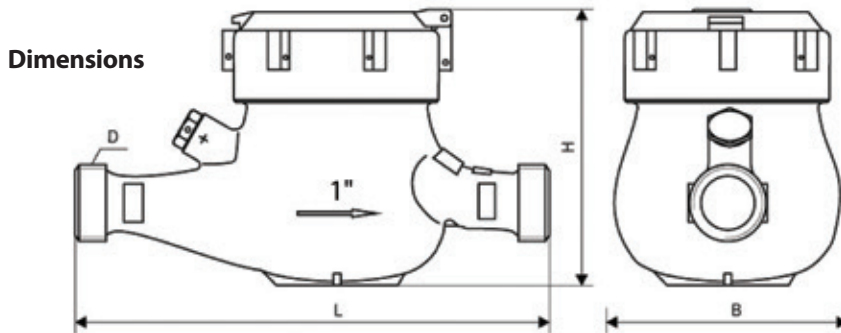
The following tables indicate the suggested flow range for Rain Bird FMD Series Landscape Water Meters. Rain Bird Sub-Meters will operate both above and below the indicated flow rates. However, good design practice dictates the use of this range for best performance. Landscape Water Meters should be sized for flow rather than pipe size.

| Rain Bird Landscape Water Meters Operating Specifications |                |                |
|---|----------------|----------------|
| Model   | Sub-meter Size | Flow Range     |
| FM0625B   | 5/8"           | 0.25 to 20 GPM |
| FM075B  | 3/4"           | 0.50 to 30 GPM |
| FM100B  | 1"             | 0.75 to 50 GPM |
| FM150B  | 1 1/2"         | 1.5 to 100 GPM |
| FM200B  | 2"             | 2.0 to 160 GPM |

### Notes:

- Maximum operating pressure is 150 psi for all models.
- Maximum working water temperature is 80° F for all models.
- Maximum operating air temperature is 105° F for all models.
- Measurement accuracy at minimum flow is +/- 3% for each model.

| Rain Bird Landscape Water Meters Pressure Loss (psi) |                |       |       |         |        |        |        |        |        |        |        |        |        |        |        |         |         |         |         |
|--|----------------|-------|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| Model  | Sub-meter Size | 1 GPM | 5 GPM | 7.5 GPM | 10 GPM | 15 GPM | 20 GPM | 25 GPM | 30 GPM | 40 GPM | 50 GPM | 60 GPM | 70 GPM | 80 GPM | 90 GPM | 100 GPM | 120 GPM | 140 GPM | 160 GPM |
| FM0625B  | 5/8"           | 0.5   | 1.5   | 4.0     | 6.0    | 10.0   | 15.0   | X      | X      | X      | X      | X      | X      | X      | X      | X       | X       | X       | X       |
| FM075B   | 3/4"           | 0.2   | 0.7   | 1.5     | 3.2    | 5.0    | 7.0    | 10.0   | 15.0   | X      | X      | X      | X      | X      | X      | X       | X       | X       | X       |
| FM100B   | 1"             | X     | 0.1   | 0.3     | 0.5    | 1.4    | 2.0    | 3.2    | 4.5    | 7.8    | 13.0   | X      | X      | X      | X      | X       | X       | X       | X       |
| FM150B   | 1 1/2"         | X     | X     | X       | 0.2    | 0.3    | 0.5    | 0.9    | 1.2    | 1.5    | 3.2    | 4.5    | 6.0    | 8.0    | 10.1   | 13.0    | X       | X       | X       |
| FM200B   | 2"             | X     | X     | X       | X      | 0.1    | 0.2    | 0.3    | 0.8    | 0.9    | 1.5    | 1.9    | 2.6    | 3.3    | 4.0    | 5.0     | 7.0     | 9.6     | 13.0    |



### Totalizer Dial



| Dimensions and Weights |             |         |         |                 |         |
|------------------------|-------------|---------|---------|-----------------|---------|
| Sub-meter Size         | 5/8"        | 3/4"    | 1"      | 1 1/2"          | 2"      |
| Body Thread 'D'        | 3/4" x 3/4" | 1" x 1" | 1" x 1" | 1 1/2" x 1 1/2" | 2" x 2" |
| Length (L)             | 7 1/2"      | 9"      | 10 3/4" | 12 5/8"         | 15 1/4" |
| Width (B)              | 3 7/8"      | 4 1/4"  | 4 3/4"  | 5 3/4"          | 6"      |
| Height (H)             | 3"          | 3 1/4"  | 5 1/8"  | 6 1/4"          | 10 1/8" |
| Height with Lid Open   | 6 3/8"      | 6 5/8"  | 8 1/2"  | 9 7/8"          | 10 1/8" |
| Weight (lbs)           | 3.7         | 4.9     | 5.5     | 10.0            | 14.0    |

Weights are approximate.

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