# Dwyer 

## Series WRBT Multi-Jet Water Meter with Removable Bottom

## Specifications - Installation and Operating Instructions



| Size <br> in $(\mathbf{m m})$ | Spud <br> NPSM (BSPP) | Length 'L' <br> in $(\mathbf{m m})$ | Width 'W' <br> in $(\mathbf{m m})$ | Height 'H' <br> in (mm) | Weight <br> lb $(\mathbf{k g})$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $5 / 8(15)$ | $3 / 4^{\prime \prime}\left(3 / 4^{\prime \prime}\right)$ | $7-1 / 2^{\prime \prime}(190)$ | $3-13 / 16(97)$ | $4-3 / 4(121)$ | $4.38(1.99)$ |
| $5 / 8 \times 3 / 4$ | $1^{\prime \prime}\left(1^{\prime \prime}\right)$ | $7-1 / 2^{\prime \prime}(190)$ | $3-13 / 16(97)$ | $4-3 / 4(121)$ | $4.6(2.09)$ |
| $3 / 4$ short | $1^{\prime \prime}\left(1^{\prime \prime}\right)$ | $7-1 / 2^{\prime \prime}(190)$ | $3-13 / 16(97)$ | $4-3 / 4(121)$ | $4.6(2.09)$ |
| $3 / 4(20)$ | $1^{\prime \prime}\left(1^{\prime \prime}\right)$ | $9^{\prime \prime}(229)$ | $3-13 / 16(97)$ | $4-3 / 4(121)$ | $4.6(2.09)$ |
| $3 / 4 \times 1$ | $1-1 / 4^{\prime \prime}\left(1-1 / 4^{\prime \prime}\right)$ | $9^{\prime \prime}(229)$ | $4-3 / 8(112)$ | $4-3 / 4(121)$ | $5.16(2.34)$ |
| 1 long (25) | $1-14^{\prime \prime}\left(1-1 / 4^{\prime \prime}\right)$ | $10-3 / 4^{\prime \prime}(274)$ | $4-3 / 8(112)$ | $5-1 / 8(131)$ | $7.1(3.22)$ |
| $1-1 / 2(40)$ | $2^{\prime \prime}\left(2^{\prime \prime}\right)$ | $9-5 / 8^{\prime \prime}(245)$ | $5-3 / 4[147]$ | $6-1 / 4(159)$ | $7.1(3.22)$ |
| $2(50)$ | $2-1 / 2^{\prime \prime}\left(2-1 / 2^{\prime \prime}\right)$ | $11-1 / 2^{\prime \prime}(293)$ | $6(153)$ | $6-3 / 4(172)$ | $15(6.81)$ |

The SERIES WRBT Removable Bottom Multi-Jet Water Meters are a series of mechanical, water totalizing meters that display the total water usage in Gallons with $\mathrm{m}^{3}$ options. They are available in a range of body sizes and include NPT or BSPT optional couplings. The ECO BRASS ${ }^{\circledR}$ alloy body incorporates a removable section that easily disassembles for easy cleaning of any collected debris that may collect in the system while maintaining its performance.

## FEATURES/BENEFITS

- Removable bottom allows for easy entry for cleaning
- Multi-jet design allows for simplicity and accuracy with wide flow ranges, even in low flow applications
- Magnetically driven, hermetically sealed register does not leak or fog and is completely separated from the water
- Designed for long service life and maintenance-free operation
- Integral strainer that protects meter from particulate damage
- Easy installation with included coupling adapters
- Pulsed output proportional to flow allows for remote flow totalization


## APPLICATIONS

- Agricultural
- Irrigation
- HVAC applications
- Measuring total condenser water flow in residential, commercial and industrial applications


## Installation Instructions

1. Thoroughly flush the service line upstream of the meter to remove dirt and debris.
2. Remove meter spud thread protectors.

Note: To protect meter spud threads, store the meter with thread protectors in place.
3. Set the meter in the line. Install in a horizontal plane, with the register upright, in a location accessible for reading, service and inspection. Arrows on the side of the meter and above the outlet spud indicate the direction of flow.
4. For accurate measurement, the tap height should be higher than the meter.
5. Do not over-tighten connections; tighten only as required to seal. Do not use pipe sealant tape on meter threads.
With upstream shutoff valve only:
6. Open shutoff valve slowly, to remove air from meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.
With both upstream and downstream shutoff valves installed:
7. Test the installation for leaks: Close the outlet (downstream) shutoff valve. Open the inlet (upstream) shutoff slowly until meter is full of water. Open the outlet (downstream) valve slowly until air is out of the meter and service line. Open a faucet slowly to allow entrapped air to escape. Close the faucet.

## SPECIFICATIONS

## Service: Water.

Wetted Materials: Body: ECO BRASS ${ }^{\circledR}$ alloy; Couplings: ECO BRASS ${ }^{\circledR}$ alloy; Measuring Chamber: ABS Plastic.
Flow Range: See model chart.
Accuracy: Transitional Flow: $\pm 3 \%$; Nominal Flow: $\pm 1.5 \%$.
Temperature Limit: $122^{\circ} \mathrm{F}\left(50^{\circ} \mathrm{C}\right)$.
Pressure Limit: 150 psi (10 bar).
Pressure Drop: See service manual.
Totalizing Display Maximum: See model chart.
Pulse Options: 10 gal or100 gal per pulse. See model chart.* Electrical Rating: $0.01 \mathrm{~A} @ 24$ VAC/DC.
Electrical Connections: Color-coded lead wires, $4.5^{\prime}$ ( 1.5 m ) long.
Mounting Orientation: Horizontal with register facing up.
Weight: See dimension chart.


ECO BRASS ${ }^{\circledR}$ is a registered trademark patent by Mitsubishi Shindoh

| MODEL CHART |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Size Inches | Coupling <br> Size | GPM (Gallons Per Minute) |  |  | Display Max (Gallons) | Pulse Rate (Gal/Pulse) | Weight of Unit Ibs (kg) |
|  |  |  | Max Flow | Nominal Flow Range | Transitional Flow |  |  |  |
| WRBT-A-C-01-10 | 5/8×1/2" | 1/2" NPT | 20 | 1 to 20 | 0.25 | 9,999,999.99 | 10 | 4.4 (1.99) |
| WRBT-A-C-02-10 | $5 / 8 \times 3 / 4$ " | 3/4" NPT | 20 | 1 to 20 | 0.25 | 9,999,999.99 | 10 | 4.6 (2.09) |
| WRBT-A-C-03-10 | 3/4" SL | 3/4" NPT SL | 30 | 2 to 30 | 0.5 | 9,999,999.99 | 10 | 4.6 (2.09) |
| WRBT-A-C-04-10 | 3/4" | 3/4" NPT | 30 | 2 to 30 | 0.5 | 9,999,999.99 | 10 | 4.6 (2.09) |
| WRBT-A-C-05-10 | $3 / 4 \times 1$ " | 1"NPT | 30 | 2 to 30 | 0.5 | 9,999,999.99 | 10 | 5.2 (2.34) |
| WRBT-A-C-06-10 | $1{ }^{\prime \prime} \mathrm{L}$ | 1" NPT L | 50 | 3 to 50 | 0.75 | 9,999,999.99 | 10 | 7.1 (3.22) |
| WRBT-A-C-07-100 | 1-1/2" | 1-1/2" NPT | 100 | 5 to 100 | 1.5 | 9,999,999.9 | 100 | 11.3 (5.13) |
| WRBT-A-C-08-100 | 2" | 2"NPT | 160 | 8 to 160 | 2 | 9,999,999.9 | 100 | 15 (6.80) |

## Meter Reading

The total flow that has passed through your meter is read by starting with the SevenDigit Totalizer, and then read the large dial followed by the smaller dials. In the example below, the Seven-Digit Totalizer reads $0000000(0 \times 10)$, and the large dial reads 3 ( $3 \times$ 1), then the smaller dial reads 0.0 ( $0 \times$.. 1 ). The total flow is 0000003.0 Gallons.

Dial


Installation


## Meter Reading



## Accuracy Curve



## MAINTENANCE/REPAIR

Upon final installation of the Series WRBT, no routine maintenance is required. The Series WRBT is not field serviceable and is not possible to repair the unit. Field repair should not be attempted and may void warranty.

## WARRANTY/RETURN

Refer to "Terms and Conditions of Sale" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem plus any additional application notes.

