

## ZENNER Stealth Ultrasonic Meters

Model: ZSU

Sizes 2" through 12"

**INTRODUCTION:** ZENNER Ultrasonic Meters are designed for applications where high accuracy, long life and a dynamic flow range is desired. The highly advanced, all-digital technology achieves precise measurement without any moving parts, ensuring optimum revenue without compromised performance over time. These meters are used for the measurement of both potable and non-potable clean water in commercial and industrial settings and are capable of bi-directional flow measurement. The meter design has minimal head loss, decreasing pressure complaints from customers and reducing pumping costs for the utility.

An industry leading sampling rate of 8 times per second, ensures you are picking up flow changes as they occur making the ZENNER Ultrasonic Meter the most accurate commercial ultrasonic meter in the industry.

**OPERATION:** ZENNER Ultrasonic Meters use solid state, sound measuring technology to measure instantaneous flow and calculate cumulative flow volume. The LCD display has two rows. The first row shows total volume, where it is factory programmed for US Gallons, Cubic Feet or Cubic Meters. The second row displays additional information such as rate of flow, flow direction, remaining battery life, leak alarms, empty pipe alerts, etc. These meters are capable of ultra precise leak registration with low flow sensitivity as low as .12 GPM.

**CONSTRUCTION:** ZENNER Ultrasonic Meters consist of three basic components: The main housing, electronics & display package, and four transducers. The main housing is made of epoxy coated ductile iron.

**COMMUNICATION:** ZENNER Ultrasonic Meters have a universal communication protocol package capable of producing outputs compatible for use with Encoded systems. These meters are designed to be connected to any existing AMR/AMI system.

**MAINTENANCE:** ZENNER Ultrasonic Meters are engineered and manufactured to provide long-term service and operate virtually maintenance free. There are no moving parts to service. The battery pack has a standard life-time of up to 12 years and is replaceable.

**CONFORMANCE:** ZENNER Ultrasonic Meters are tested and comply with AWWA Standards C715 and C750. These Meters comply with the lead free provisions of the Safe Drinking Water Act and are certified to NSF/ANSI Standards 61 and 372.

**INSTALLATION:** ZENNER Ultrasonic Meters are designed to fit the same laying length as most standard turbine meters. With no moving parts to damage, these meters can be used safely and accurately with or without a strainer. These meters are submersible and exceed IP68 standards. These meters can be installed in any position, including horizontal and vertical.



ZSU03

| MODEL                               |        | ZSU02    | ZSU03    | ZSU04    | ZSU06    | ZSU08    | ZSU10    | ZSU12    |
|-------------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|
| SIZE                                |        | 2"       | 3"       | 4"       | 6"       | 8"       | 10"      | 12"      |
| Maximum continuous                  | USGPM  | 250      | 600      | 1,000    | 2,400    | 3,800    | 6,000    | 9,600    |
| High flow rate                      | USGPM  | 250      | 600      | 1,000    | 2,400    | 3,800    | 6,000    | 9,600    |
| Low flow rate                       | USGPM  | .25      | .50      | .75      | 2.25     | 3.5      | 5.5      | 9        |
| Start-up flow rate                  | USGPM  | .12      | .25      | .44      | 1.12     | 1.75     | 2.75     | 4.50     |
| Maximum working pressure            | P.S.I. | 225      | 225      | 225      | 225      | 225      | 225      | 225      |
| Pressure loss at the high flow rate | P.S.I. | 4.9      | 1.9      | 1.9      | 1.0      | 1.0      |          |          |
| Environmental temperature limits    | Deg. F | 40 - 122 | 40 - 122 | 40 - 122 | 40 - 122 | 40 - 122 | 40 - 122 | 40 - 122 |
| Length                              | Inches | 10       | 12       | 14       | 18       | 20       | 17 3/4   | 19 11/16 |
| Height                              | Inches | 5 5/8    | 7 1/2    | 8 3/4    | 10 5/8   | 12 5/8   | 15 3/16  | 18 1/8   |
| Width                               | Inches | 6        | 7 1/2    | 9        | 11       | 13 1/2   | 16       | 19       |
| Weight                              | Pounds | 18       | 36       | 48       | 61       | 94       | 116      | 170      |
| Number of holes per flange          |        | 2        | 4        | 8        | 8        | 8        | 12       | 12       |



**ZSU02**

**ZSU03**

**ZSU04**