

# SR II® Meters

## Specifications (Bismuth BiAlloy CDA89836 Maincase)

### For Cold Water Meters Displacement Type with Direct Read Registers 5/8" – 1" SR II Sizes

#### TYPE

Magnetic Drive, Sealed Register, Positive Displacement Type Oscillating Piston only.

#### SIZE

Must conform to American Water Works Standard C-700 as most recently revised.

#### LENGTH

Must conform to American Water Works Standard C-700 as most recently revised.

#### CASES

All Meters shall have a non-corrosive Bismuth BiAlloy CDA89836 alloy outer case with a separate measuring chamber which can be easily removed from the case. All Meters shall have cast on them, in raised characters, the size and direction of water flow through the meter. Cast Iron frost bottoms, or Bismuth BiAlloy bottoms shall be provided on 5/8", 3/4", and 1" Meters. Maincase will be marked with a "BA" to denote the material used which meets the requirements of ANSI/NSF Standard 61. Sensus low lead products conform to the requirements of Annex G of ANSI/NSF Standard 61.

#### EXTERNAL BOLTS AND WASHERS

All external bolts and washers shall be of corrosion resistant material and be easily removed from the maincase. All threaded maincase bolt holes must be covered, to aid in removal of the bolts for repair.

#### REGISTER

The register must be of the straight reading type with a large red test or sweep hand and shall include a low flow indicator on the dial face. The numeral wheel assembly shall be located at the bottom of the dial face with reading obtained from left to right. All reduction gearing shall be contained in a permanently hermetically sealed, tamperproof enclosure made from a stainless steel material, covered with a heat tempered glass lens.

The register shall be attached to the meter utilizing a bronze or plastic bonnet register box. The register shall be secured to the maincase by means of a tamper-resistant locking screw so that the register cannot be removed by non-utility personnel. The register must be field replaceable by utility personnel with the use of a manufacturer-supplied field tool. The field tool must not be commercially available. Seal wiring or a frangible head seal screw is not acceptable.

#### MEASURING CHAMBER

The measuring chamber shall be a suitable synthetic polymer and shall not be cast as part of the maincase. All piston assemblies shall be interchangeable in all measuring chamber assemblies of the same size. The measuring chamber piston shall operate against a replaceable control roller, allowing for repair to AWWA standards. The control roller shall rotate on a stainless measuring chamber steel pin, to provide added strength, wear resistance and corrosion resistance. There shall be an elastomeric seal or seals between measured and unmeasured water, preventing leakage around the measuring element.

#### MAGNETIC COUPLING

The motion of the piston will be transmitted to the sealed register through the use of a magnetic coupling.

#### STRAINERS

All meters must be provided with a corrosion-resistant strainer, with an effective straining area at least twice the bore diameter which can be easily removed from the meter without the meter itself being disconnected from the pipeline.

#### CHANGE GEARS

Change gears will not be allowed to calibrate the meter. All registers of a particular registration and meter size shall be identical and completely interchangeable. Should meters arrive with registers containing more than one gear combination, the entire shipment will be returned to the manufacturer freight collect and the next responsible bidder will receive the award.

#### ACCURACY AND HEADLOSS TESTS

Meters shall conform to current AWWA C-700, current revision, test flows, headloss and accuracy standards.

#### PRESSURE CAPABILITY

Meters shall operate up to a working pressure of 150 pounds per square inch (psi), without leakage or damage to any parts. The accuracy shall not be affected by variation in pressure up to 150 psi.

#### PERFORMANCE WARRANTIES

In evaluating bid submittals, warranty coverage will be considered. All bidders are required to submit their most current nationally published warranty statements for water meter maincases, registers and measuring chambers.

#### SHIPMENT VERIFICATIONS

A statistically controlled sample of each meter shipment will be tested by the utility to insure each shipment meets the utility performance and materials specifications.