

## COMPOUND METERS



### AWWA CLASS II – SINGLE REGISTER HIGH-PERFORMANCE COMPOUND METER Size 4" (DN 100mm)



Intelligent Communications Encoder (ICE) Registers



4" SRH Compound Meter

#### DESCRIPTION

**APPLICATION:** The 4" SRH Compound Meter is designed specifically for use in cold water services where flows vary from the very large to the very small. Typical applications are apartment dwellings, office buildings, hotels, schools and smaller manufacturing facilities.

**CONFORMANCE TO STANDARDS:** SRH Compound Meters comply with ANSI/AWWA Standard C702 Class II (most recent revision). Each meter is performance tested to insure compliance.

**CONSTRUCTION:** The SRH Compound Meter is essentially two meters within a single bronze housing. Low flows are measured through the piston type positive displacement measuring chamber. High flows through the turbine chamber. Flows through the measuring chambers are controlled by a bronze swing action valve. The measurements of the two chambers are coordinated and recorded on a single billing register.

**COORDINATOR:** A separate, sealed compartment contains the reduction gearing and over-riding clutches for both chambers in one module. The compartment is oil-filled for long life and maintenance-free operation. Separate change gears for calibrating the measuring chambers are located on top of the module for easy access.

**MAGNETIC DRIVE COUPLINGS:** The motion of the measuring chambers is transferred to the sealed coordinator and single totalizing register through magnetic couplings. This allows all reduction gearing to be out of the water. Also, the turbine's shaft is magnetically suspended, causing it to be essentially weightless in water.

**MODULAR DESIGN:** The hermetically sealed register, coordinator module, positive displacement chamber and turbine chamber can all be replaced quickly and easily with the meter in line.

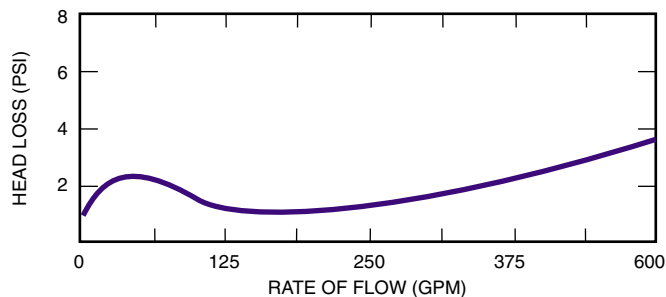
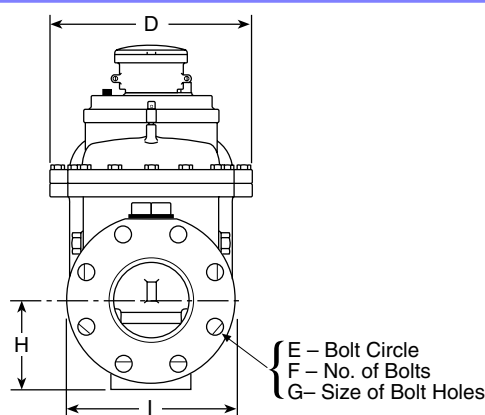
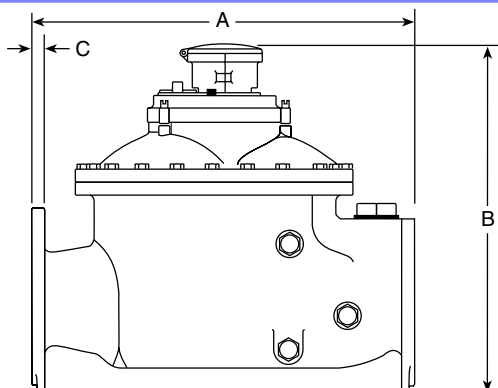
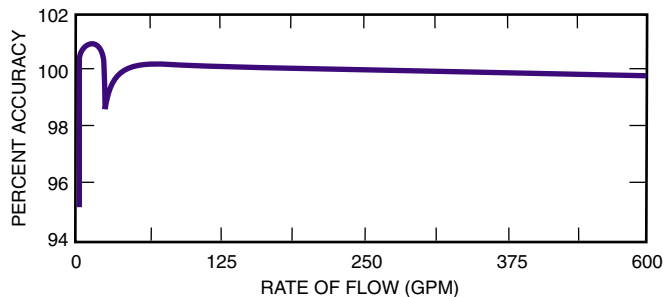
**MAINTENANCE:** SRH Compound Meters should be tested periodically to insure proper operation. A test plug is conveniently located on top of the maincase for field testing. Factory testing, repair and meter exchange programs are available.

#### SPECIFICATIONS

<b>SERVICE</b>	Measurement of cold water up to 80°F (27°C), horizontal installations with flow in one direction only.
<b>OPERATING RANGE</b>	3/4 to 600 gpm (.15 to 136 m <sup>3</sup> /h)
<b>ACCURACY (except at crossover)</b>	100% ± 1.5% of actual thruput
<b>ACCURACY AT Crossover</b>	95% minimum
<b>LOW FLOW</b>	95% minimum at 3/4 gpm (.15 m <sup>3</sup> /h)
<b>PRESSURE LOSS</b>	3.5 psi at 600 gpm (.24 bar at 136 m <sup>3</sup> /h)
<b>MAXIMUM OPERATING PRESSURE</b>	150 psi (10.34 bar)
<b>FLANGE</b>	4" Round, ANSI Class 125
<b>REGISTER</b>	Hermetically Sealed Direct Reading Register with Low Flow Indicator
<b>ENCODER REGISTRATION</b>	1,000,000,000 gallons 1 gallon/sweep hand revolution 100,000,000 cubic feet .1 cubic feet/sweep hand revolution 1,000,000 m <sup>3</sup> .001 m <sup>3</sup> /sweep hand revolution
<b>MATERIALS</b>	Maincase—Bronze Bypass Chamber—Rocksyn® (Bronze optional) Turbine Chamber—Synthetic Polymer (Bronze optional) Piston—Synthetic Polymer Turbine—Polypropylene Valve—Bronze Test Plug—2" Tapered Pipe Threads (test nipple and valve optional) Trim—Stainless Steel

**SINGLE REGISTER HIGH-PERFORMANCE COMPOUND METER**

Size 4" (DN 100mm)

**Head Loss Curve****Accuracy Curve**

Meter and Pipe Size	Dimensions									Net Weight	Shipping Weight
	A	B	C	D	E	F	G	H	I		
4"	20"	17-3/4"	11/16"	10-5/8"	7-1/2"	8	3/4"	4-3/4"	9"	128 lbs.	133 lbs.
DN 100mm	508mm	451mm	17mm	270mm	190mm	8	19mm	121mm	229mm	58 kg	60.3 kg

**Installation Instructions:** Please see CM-973 latest revision.**Remote Reading Systems—For use with all sizes of Invensys Water Meters**

All Invensys AMR systems work with the same absolute encoder Electronic Communications Registers (ECR), enabling the utility to mix and match or easily move from one system to another without changing registers for each.

**The TouchRead® Automated Meter Reading and Billing System**—is a multi-purpose encoder remote system suitable for indoor and/or outdoor use. The ECR Register uses a wired connection between the meter and an outside remote for inside set meters—or a pitlid mounted module, enabling underground meters to be read automatically without opening the meter box or vault. All wired connections and terminals of the TouchRead PitLid (TR/PL) modules and registers are fully sealed at the factory using a special process to ensure protection from water infiltration. The connection terminals of ECR/WP registers are also factory sealed.

Meters equipped for TouchRead System reading can be read with a visual reading device, stand alone AutoGun, and/or reading gun with an AutoRead HandHeld Device. For more information on TouchRead System equipment refer to bulletins AMR-TR, AMR-401, AMR-403, AMR-312 and EXSUMHH.

**PhonRead® AMR**—is a reliable telephone based call-in system that does not require batteries for operation. It also does not require equipment to be installed at telephone company facilities. PhonRead Meter Interface Units

(MIU) automatically call "in" to the utility office for transferring meter reading data from the meter site to a PC. PhonRead is a transparent AMR system that does not interfere with customers' telephone service. For more information refer to bulletins AMR-PR and AMR-302.

**RadioRead® AMR**—uses superior Direct Sequence Spread Spectrum modulation to provide reliable, safe and virtually interference free radio-based transmission of reading data from underground or inside-set meters that are equipped with Meter Transceiver Units (MXU). A choice of meter reading options is available. A radio frequency hand-held device (RF-HHD) can be used by a meter reader on foot. The RF-HHD can also be used to collect readings from TouchRead equipped meters, or for manual meter reading entries. A more powerful Vehicle Transceiver Unit (VXU) can be used in any car or truck to read meters while on the move. (A dedicated meter reading vehicle is not required.) For more information refer to bulletins AMR-RR, AMR-301 and AMR-303, and AMR-401.

**MultiRead® Port Expanders**—can provide the capability to connect multiple ECR equipped meters to a single PhonRead MIU or RadioRead MXU to save the utility time and money for installations such as apartment complexes and shopping centers. Refer to bulletin AMR-305, AMR-306 and AMR-308.

**invensys**

Metering Systems

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