



Sensus® Electronic Register+™

Application and Features

The Sensus® Electronic Register+™ is an advanced electronic register with 120 days of hourly data logging and 30-day data pull intervals available. This straight reading register with an LCD display provides greater reliability, higher-resolution readings and more advanced features than any other electronic communication register previously available. There are nine digits on the display, the ninth being a low flow indicator. Other features include field replaceable with a unique locking system, rate of flow, forward and reverse flow indicator, alarm icon notifications, field and network configurable, and a 20 year warranty.

Operation

The Electronic Register+ utilizes “magnetic-field position sensing” technology to determine the orientation of the water meter shaft. Through electronics, it is able to count the number of rotations, and display the measurements on the LCD. The register has multiple views available, which display volume, flow rate and alarms. The register can be used with Sensus accuSTREAM™ and SR II® positive displacement meters because no torque is developed beyond that in a standard, visual read register.

Smart Alarms

Electronic Register+ has several configurable smart alarms. Get alerts and address these issues before they become more costly:

TAMPERING

- Detect register removal attempts and magnetic interference to reduce apparent water losses and protect against unauthorized activities.

LOW BATTERY

- Replace your meters before they stop recording consumption through alerts indicating battery capacity to the meter is running low.

CUSTOMER LEAK

- Detect continual consumption of water over a period of time to indicate downstream leaks. This can reduce water loss and leak adjustment costs.

REVERSE FLOW

- Keep untreated water from re-entering your distribution system or deter tampering attempts when reverse flow is detected.

HIGH FLOW

- Detect broken pipes and reduce property damage through an alert triggered when excessive flow rates are recorded.

Sensus AMR/AMI System Migration

All Sensus AMR registers, past and present, provide three connection posts, two of which are needed for TouchRead® applications and three for RadioRead® and FlexNet® communication network systems with three wire systems. This enables a utility to easily and economically upgrade from a TouchRead system to a more-advanced AMR/AMI system without having to replace the registers on its meters.

Higher Resolution Readings

With its nine functioning register digits, greatly enhanced reading resolutions are provided. For example, on a register that records consumption in gallons, the right-most digit displays usage in hundredths of a gallon. The digit to its left displays usage in tenths of gallon units. Similar highly-definitive reading resolutions are also provided when the register is configured for volume usage in cubic feet and cubic meters.

Wiring Connections

To ensure reading integrity, the Sensus Electronic Register+ pit set wiring connections are protected from moisture through the encapsulation (potting) of wiring components with a special epoxy material during the manufacturing process. The Electronic Register+ comes standard with bare wire or Sensus proprietary TRPL connections. Other connections are available upon request.

Installation and Use Considerations

Strict adherence to proper installation procedures and reading methods are required to achieve reliable readings from this electronic register.

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Waterproof Packaging

To ensure meter reading integrity and accuracy, the register's components are protected from moisture, dirt, ultra-violet rays and mechanical damage. All components are contained in a hermetically sealed, tamperproof enclosure made of a corrosion resistant material, covered with a plastic or heat-tempered glass lens.

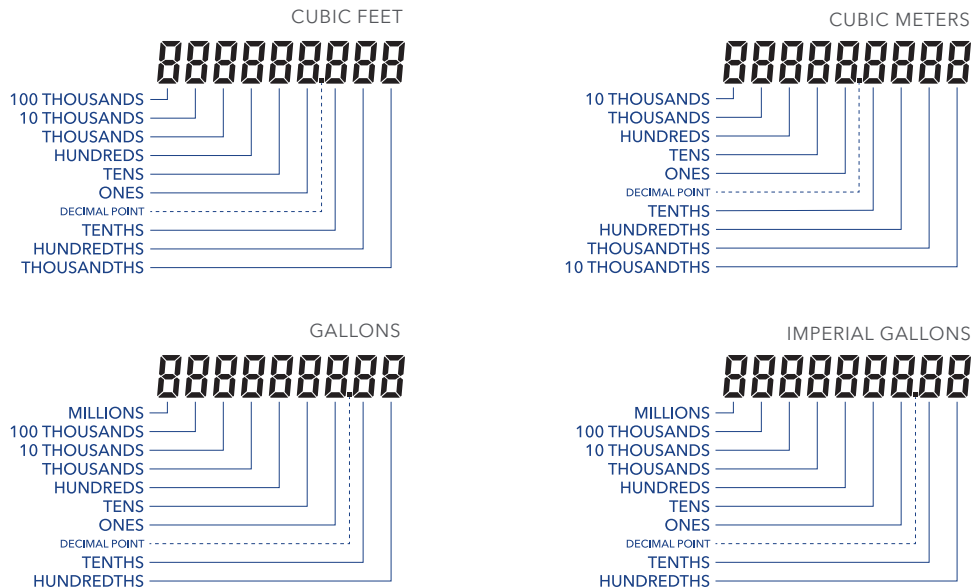
Assurance Testing

Throughout their development, Sensus Electronic Register+ passed an exhaustive series of tests conducted to ensure compliance with specifications for reliable, long-term performance. In addition to testing to assure reading validity in a multitude of applications, registers were exposed to and passed test conditions simulating harsh environmental conditions.

SPECIFICATIONS

Service	For use on Sensus positive displacement meters for the purpose of obtaining electronic meter readings with compatible automatic meter reading equipment. IP68+ rated.	
Temperature Ranges	Ambient air operating:	-22 °F (-30 °C) to 140 °F (60 °C)
	Storage air:	-30 °F (-34.4 °C) to 158 °F (70 °C)
Meter Compatibility	Sensus SR II® and accuStream™ positive displacement meters.	
AMI/AMR Compatibility	Sensus AMI/AMR and virtually all other brands of AMR/AMI reading equipment.	
Register Resolution	.01 gallons/imperial gallons, .001 cubic foot, or .0001 m ³ .	
Compliances	Latest revision of AWWA Encoder Standard C707	
Register Types	Inside-set:	For indoor installations only. All components are contained in a permanently hermetically sealed, tamperproof enclosure made of a corrosion resistant material, covered with a plastic lens.
	Pit-set:	For outdoor installations only. All components are contained in a permanently hermetically sealed, tamperproof enclosure made of a corrosion resistant material, covered with a heat tempered glass lens.

Registration Unit Indications for Meters Listed



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