

iPERL™ Water Management System

Electromagnetic Flow Measurement System

5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes

DESCRIPTION

MODEL: With no moving parts, the Sensus iPERL water management system is based on innovative electromagnetic flow measurement technology. The iPERL system family has an operating range of 0.03 gpm (0.007 m³/hr) @ 95% minimum to 55 gpm (12.5 m³/hr) @ 100% ± 1.5% registration of actual throughput.

CONFORMANCE TO STANDARDS: The iPERL system far exceeds the most recent revision of ANSI/AWWA Standard C-700 and C-710 for accuracy and pressure loss requirements. All iPERL systems are NSF Standard 61 Annex G compliant and tested to AWWA standards.

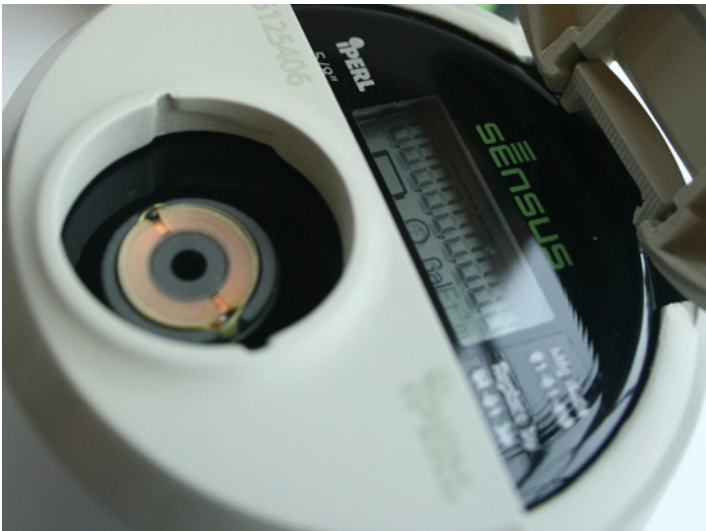
PERFORMANCE: The patented measurement technology of the iPERL system allows enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product as well as the full measurement range.

CONSTRUCTION: The iPERL system is an integrated unit that incorporates an electronic register and measuring device encased in an external housing. The measuring device is comprised of a polyphenylene sulfide alloy flowtube with externally-threaded spud ends. Embedded in the flowtube are magnetic flow sensors and a replaceable strainer screen. The all electronic programmable register is hermetically sealed with a tempered glass cover. The iPERL system has a 20 year life cycle, along with a 20 year battery life guarantee. At the end of this life cycle, you do not have to be concerned about repairing the iPERL system since the design is not meant to be repaired but is easily replaceable.

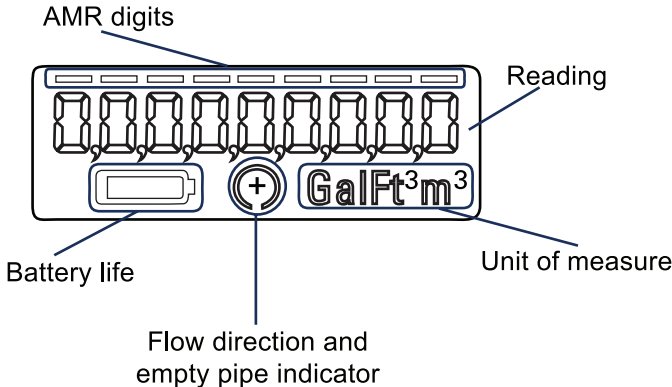
ELECTRONIC REGISTER: The high resolution 9-digit hermetically sealed electronic register with LCD display was designed to eliminate dirt, lens fogging issues and moisture contamination in pit settings with built in tamper protection. The tempered glass register cover displays readings with the AMR digits highlighted. Direction of flow and units of measure are also easily readable on the register display. The register is programmable using the UniPro programming package to display in either gallon, cubic feet or cubic meter totalization. The large, easy to read display also includes battery life and empty pipe indicators.

TAMPERPROOF FEATURES: The ingenious integrated construction of an iPERL system prevents removal of the register to obtain free water. The magnetic tamper and low field alarms will both indicate any attempt to tamper with the magnetic field of the iPERL system.

AMR/AMI SYTEMS: iPERL systems are compatible with current Sensus AMR/AMI systems.

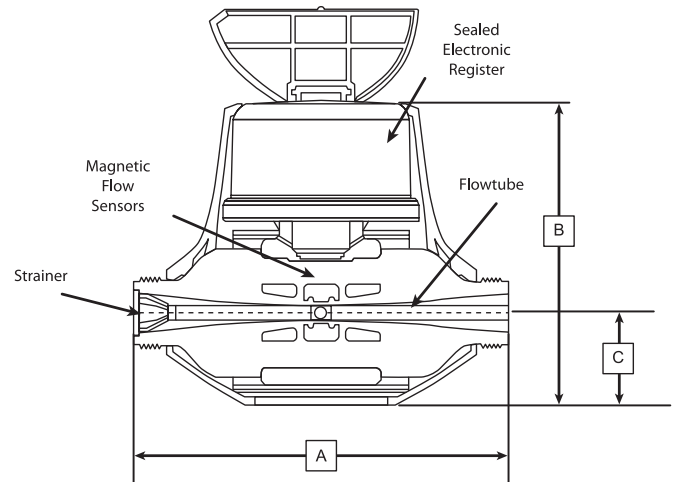
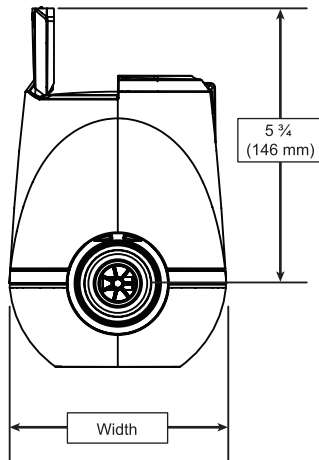


Electronic Register LCD Display



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Technology for the iPERL system is licensed from Sentec Limited.



DIMENSIONS AND NET WEIGHTS

Size	A (lay length)	B	C	Spud Ends	NPSM Thread Size	Width	Net Weight
5/8" (DN 15 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	5/8" (15 mm)	3/4" (19 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4" (DN 20 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4" (DN 20 mm)	9" (229 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.2 lb. (1.5 kg)
1" (DN 25 mm)	10-3/4" (273 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	1" (25 mm)	1-1/4" (32 mm)	4-1/2" (114 mm)	3.3 lb. (1.6 kg)

SPECIFICATIONS

SERVICE	Measurement of cold water with flow in one direction only.
NORMAL OPERATING FLOW RANGE (100%±1.5% of actual throughput)	5/8" (DN 15mm) size: 0.1 to 25 gpm (0.02 m ³ /h to 5.7 m ³ /h) 3/4" (DN 20mm) size: 0.1 to 35 gpm (0.02 m ³ /h to 8.0 m ³ /h) 1" (DN 25mm) size: 0.4 to 55 gpm (0.09 m ³ /h to 12.5 m ³ /h)
LOW FLOW REGISTRATION (95%-101.5%)	5/8" (DN 15mm) size: 0.03 gpm (0.007 m ³ /h) 3/4" (DN 20mm) size: 0.03 gpm (0.007 m ³ /h) 1" (DN 25mm) size: Calculation available in 2010
MAXIMUM PRESSURE LOSS	5/8" (DN 15mm) size: Calculation available in 2010 3/4" (DN 20mm) size: 8 psi at 35 gpm (0.5 bar at 8.0 m ³ /h) 1" (DN 25mm) size: Calculation available in 2010
MAXIMUM OPERATING PRESSURE	200 psi (13.8 bar)
MEASUREMENT TECHNOLOGY	Solid state electromagnetic flow

REGISTER	Hermetically sealed, tempered glass covered 9-digit programmable electronic register AMR/AMI compatible iPERL system register programmable using the UniPro programming package iPERL systems are shipped in idle mode; they must be activated upon installation
MATERIALS	External housing – Thermal plastic Flowtube – Polyphenylene sulfide alloy Electrode – Silver/silver chloride Strainer – Synthetic polymer Register cover – Tempered soda lime glass
ALARM DEFAULTS	Alarm Duration – 90 days Leak Duration – 24 hours Datalog Interval – 1 hour Alarm Mask – All alarms reported History Mask – All event types reported