

From: [Olemara Peters](#)
To: [UTC DL Records Center](#)
Subject: DOCKET U-180117 - AMI repelling wild birds
Date: Monday, March 12, 2018 5:47:48 PM
Attachments: [PastedGraphic-5.pdf](#)
[PastedGraphic-4.pdf](#)
[PastedGraphic-3.png](#)
[ipl_110.pdf](#)

DOCKET U-180117 - AMI repelling wild birds
From: Olemara Peters
Date: March 11 2018

Dear WUT Commissioners,

Another reason people should be able to refuse “smart” meters (transmitting or otherwise) is that the device in this instance is clearly digital, and purports to be at least not currently activated to transmit/receive; but the analog meter, that it replaced, never in 28 years caused the following problem):

I’ve been mentioning AMR/ AMI costs to other species —> ecosystems. Besides 19 years of PSE’s AMR’s, I have another situation — just as much in need of Opt-In and ability to decline (to choose replacement with another analog meter, or other proved-harmless meter):

Oct 15 2014 (9 am), Redmond Water Dept (without prior notification), 2 young men, came knocking on my door.

Joe: Your water meter isn’t working properly, we need to turn your water off for 15-20 min to replace it.

OP: What are you replacing it with? -- digital? wireless?

Joe: No -- just the same as what you have, only it will work better.

OP: May I make photos of both?

Joe: Yes.

OP: What’s the indication that the current one’s not working?

Morgan: Usually it’s a sharp change in apparent consumption -- sharply higher or lower. We don’t know, in this specific case -- we just got a piece of paper that says it’s not working, needs changing.

[old water meter]

[new water meter]



State Of WASH
UTIL. AND TRANSFER
COMMISSION

03/12/18 09:07

Received
Records Management

...Well, it looked digital to me (and why would it have an antenna, if not planning to transmit?).

But the young men said it wasn't for transmitting.

They left by 9:30 am.

But from that morning on, and subsequent days, I noticed there were NO BIRDS (though my yard, the trees by the window where I normally work and can watch in detail, had always been rich with wild-bird-life).

When we looked up the meter later, it turned out to be indeed digital and AMI: "iPERL":

The Water Dept office then said they're not using its transmission-function, it's not activated, and they don't have any plan to do so; they need it just in order to be able to read with the wand as before; they will be replacing all others in the neighborhood with this same model, eventually (schedule not yet known).

Meanwhile, the absence of birds continues — it's been 3 1/2 years now! Neighboring yards are still rich and tuneful with birds (and still receive birds' eco-services, e.g. cleaning insect-overpopulations off the trees — as the mixed flock of 20-30 bush tits, chickadees, towhees, juncoes, wrens, and nuthatches used to do at my place too, reliably twice a week — occasionally also a brown creeper or a few kinglets). I do my best to log remaining birds-visits here (down by 95% or more, and there are some species that've never come back at all), and to gauge this repelling-radius (it seems about 50-100'). I don't look forward to the day when this repelling-field —> dead-zone gets rolled out on the whole neighborhood— let alone what will be the bioeffects of these devices (to neighbor creatures, and to me) if-and-when-ever the intended AMI-transmission/reception actually gets activated (and can then be further "upgraded" to change frequencies, schedules, etc., remotely and without notification). I don't know what this one's already emitting meanwhile, but whatever it is, the birds already sure don't like it.

Sincerely,

Olemara Peters
Redmond, WA



TR-PL

SENSUS
TECHNOLOGIES, INC.

TouchPad System



0.7386100

CUBIC FEET

INSTALLATION

SR II

5/8

15.10.2014 09:27



eSens

77259217

77259217

OPEN

OPEN

77259217

15.10.2014 09:26

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.

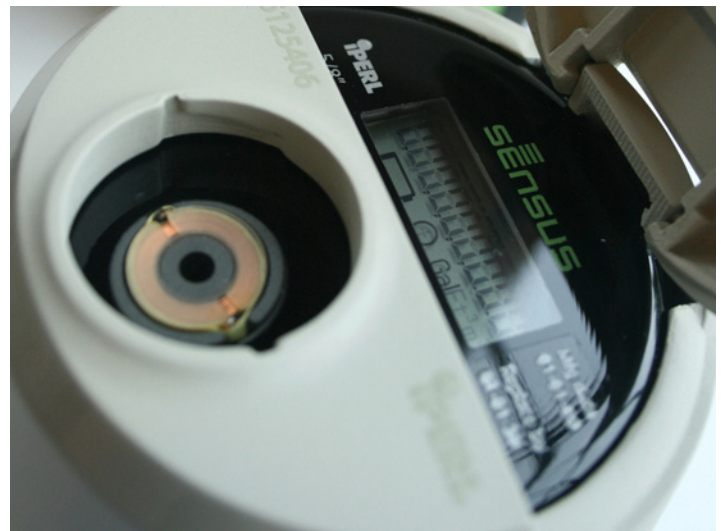
PERFORMANCE: The patented measurement technology of the iPERL system allows enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product as well as the full measurement range.

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.

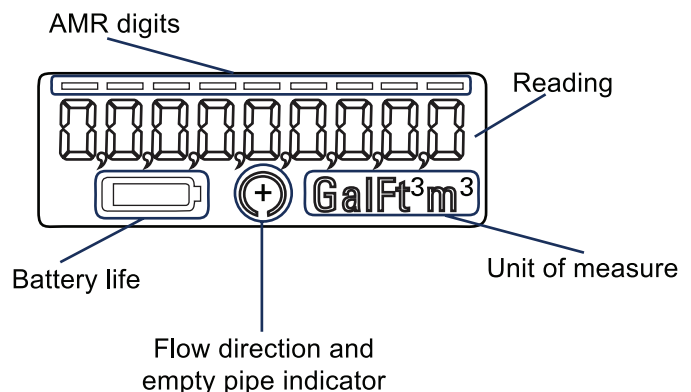
ELECTRONIC REGISTER: The high resolution 9-digit hermetically sealed electronic register with LCD display was designed to eliminate dirt, lens fogging issues and moisture contamination in pit settings with built in tamper protection. The tempered glass register cover displays readings with the AMR digits 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 SYSTEMS: iPERL systems are compatible with current Sensus AMR/AMI systems.

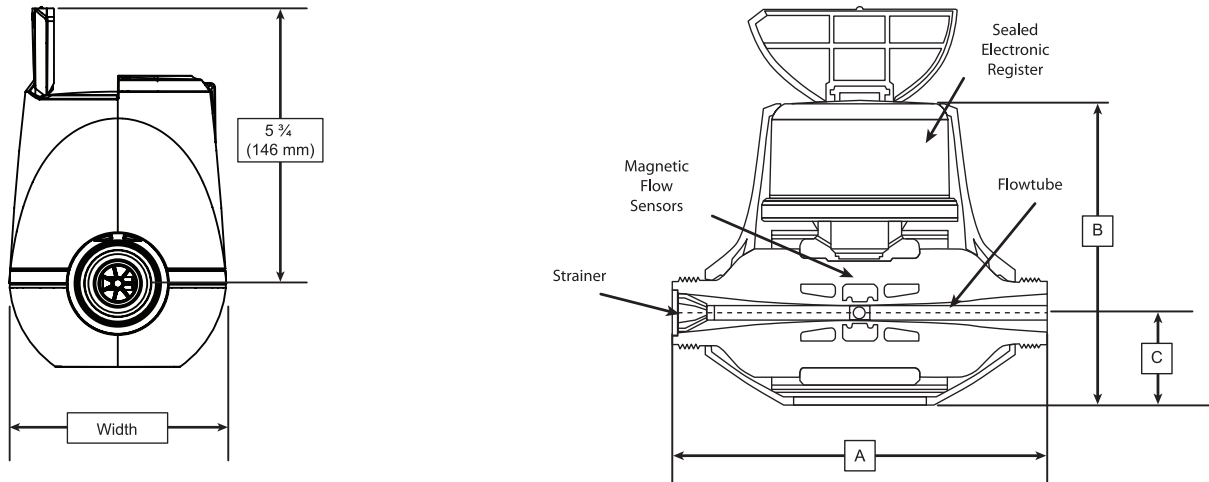


Electronic Register LCD Display



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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" S (5/8" x 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

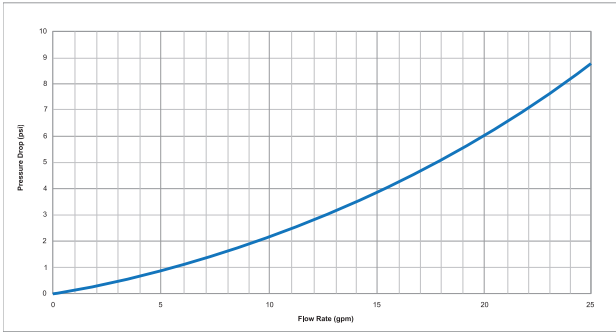
SERVICE	Measurement of cold water with flow in one direction only.
NORMAL OPERATING FLOW RANGE (100%±1.5% of actual throughput)	5/8" (DN 15mm) size: 0.11 to 25 gpm (0.02 m ³ /h to 5.7 m ³ /h) 3/4" (DN 20mm) size: 0.11 to 35 gpm (0.02 m ³ /h to 8.0 m ³ /h) 1" (DN 25mm) size: 0.4 to 55 gpm (0.09 m ³ /h 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: 0.11 gpm (0.025 m ³ /h)
MAXIMUM PRESSURE LOSS	5/8" (DN 15mm) size: 4 psi at 15 gpm (0.3 bar at 3.4 m ³ /h) 3/4" (DN 20mm) size: 2 psi at 15 gpm (0.1 bar at 3.4 m ³ /h) 1" (DN 25mm) size: 2 psi at 25 gpm (0.1 bar at 5.7 m ³ /h)
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 active mode
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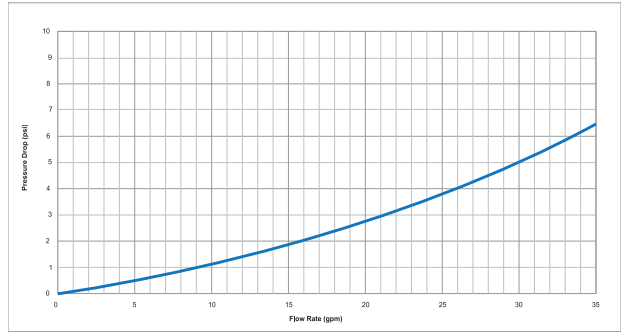
MATERIALS	External housing – Thermal plastic Flowtube – Polyphenylene sulfide alloy Electrode – Silver/silver chloride Strainer – Synthetic polymer Register cover – Tempered soda lime glass
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ALARM DEFAULTS	Alarm Duration – 90 days Leak Duration – 24 hours Datalog Interval – 1 hour Alarm Mask – All alarms reported History Mask – All event types reported
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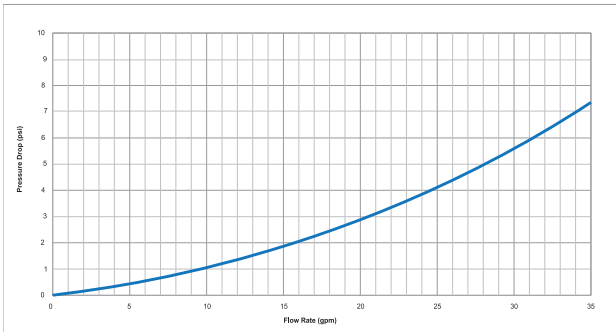
HEADLOSS CURVES



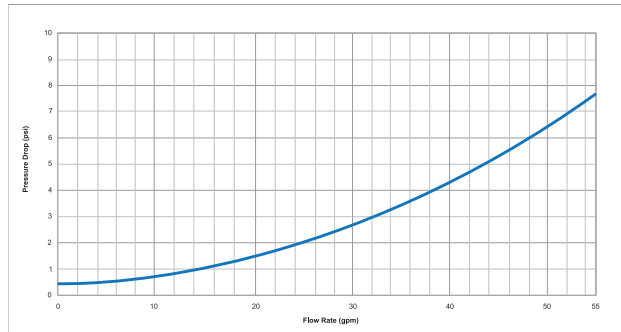
5/8" Headloss Curve



3/4" Short Headloss Curve



3/4" Headloss Curve



1" Headloss Curve