



The Measure of the Future



Smart Grid Water Solutions & Benefits



Salt Lake City, UT

Residential Smart Metering & Leak Detection

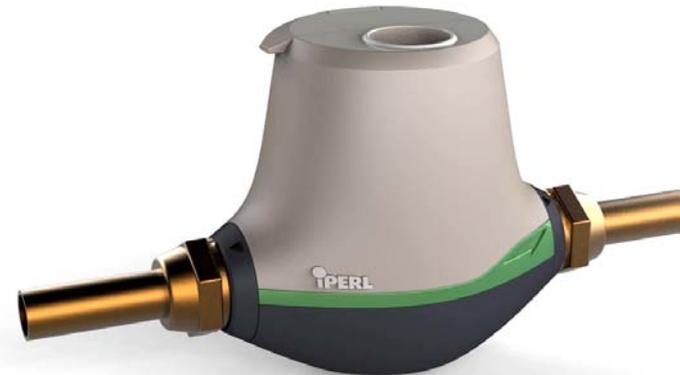
- **Increase Revenue without Raising Rates**
 - Low Flow Performance (down to 0.03 GPM)
 - High Flow Accuracy
 - 20 Year New Meter Accuracy Warranty
- **Reduce Apparent Losses – Low Flows**
- **Reduce Pumping and Power Costs**
 - 50% Less Head Loss per Meter
- **Reduce/Eliminate Maintenance Costs**
 - No Moving Parts
- **Improve Customer Service**
 - Eliminate Lead from Water Meter
 - 45 Days of 1 Hour Data Logging



Sensus Smart Grid H₂O Advantage

Advanced Alarms:

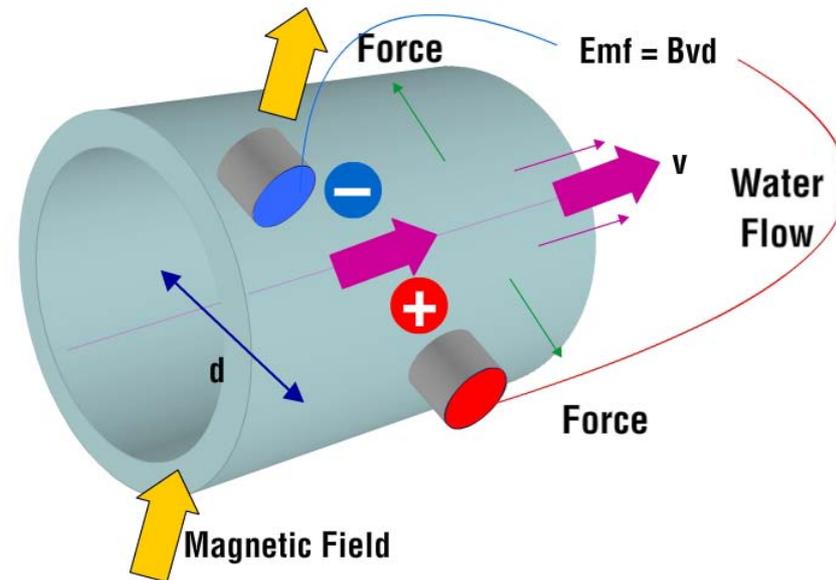
- Backflow
- Tamper
- Empty Pipe
- Leak
- Broken Pipe
- Cut Wire
- Magnetic Field
- Low Battery



■ Mag Meter

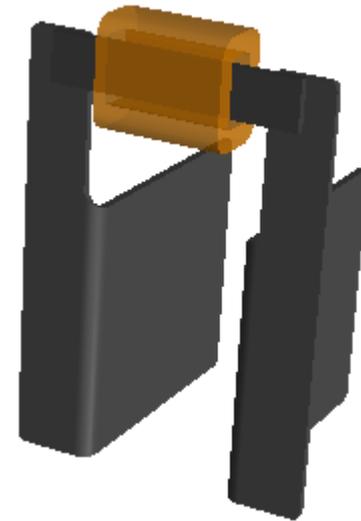
– Uses Faraday's law

- Measure a signal that is produced when water flows through a magnetic field
- Signal is dependent on water speed
- Multiply the flow rate by time to give volume



- Patented features to achieve superior low flow accuracy with high flow capability

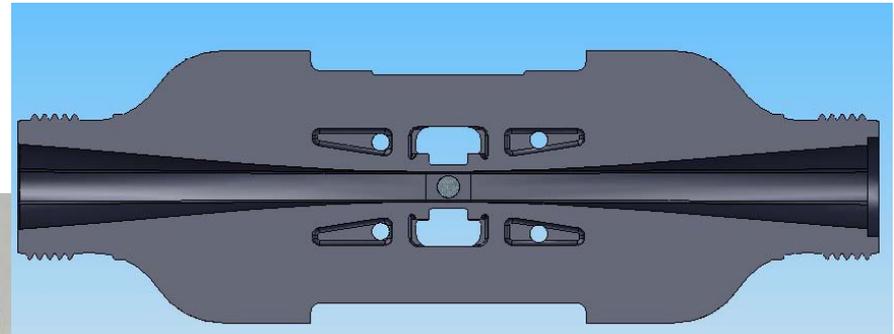
- iPERL is not a traditional magnetic meter
- **Remanent Technology**
 - Measuring principle developed to be power efficient, predictable, and perpetual
 - Continuously recording flow with no gaps in measurement
 - Low power consumption
 - Extraordinary accuracy





IPERL[®] Technology

- **Rectangular measurement section**
 - Best physics for measurement accuracy
- **Robust design of flow tube to achieve required performance characteristics**
 - Glass infused polyphenylene sulfide alloy
 - Lead free

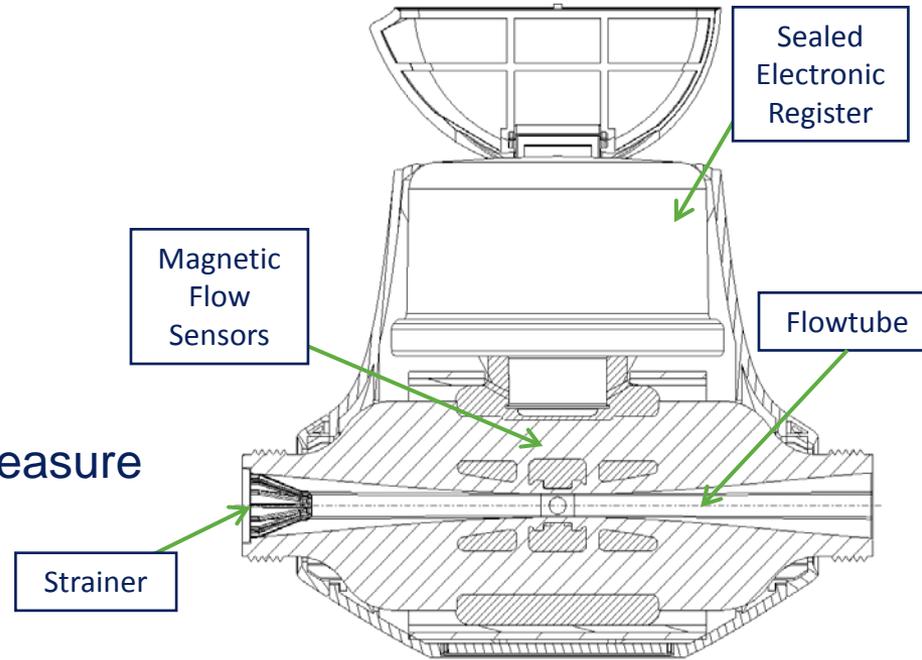
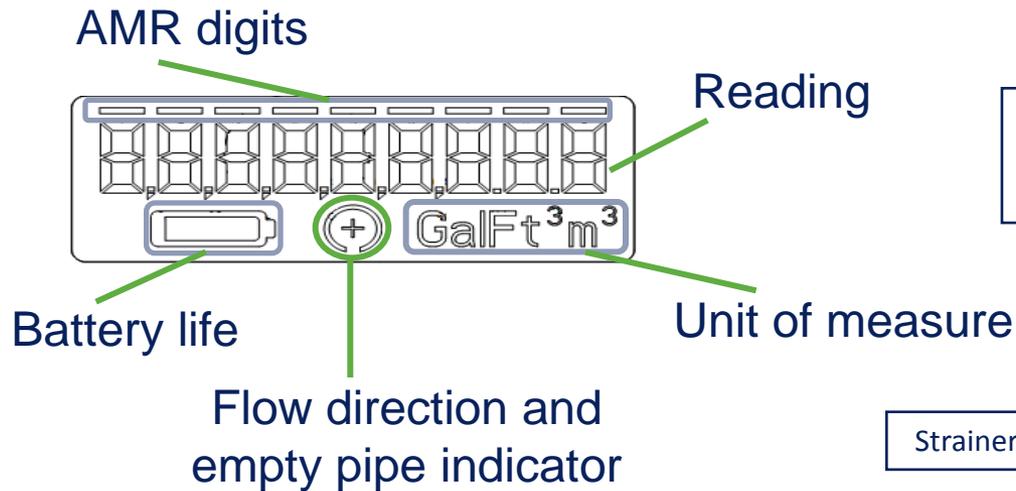


Sizes	Low Flow (95%)	Operating Range	Lay Lengths
5/8"	0.03 gpm	0.1 - 25 gpm	7-1/2"
3/4" short (5/8" x 3/4")	0.03 gpm	0.1 - 35 gpm	7-1/2"
3/4" regular	0.03 gpm	0.1 - 35 gpm	9"
1"	0.11 gpm	0.4 – 55 gpm	10-3/4"

- iPERL accuracy significantly exceeds AWWA standards
- Composite body is lead-free
 - ANSI/NSF Standard 61 Annex G/F compliant

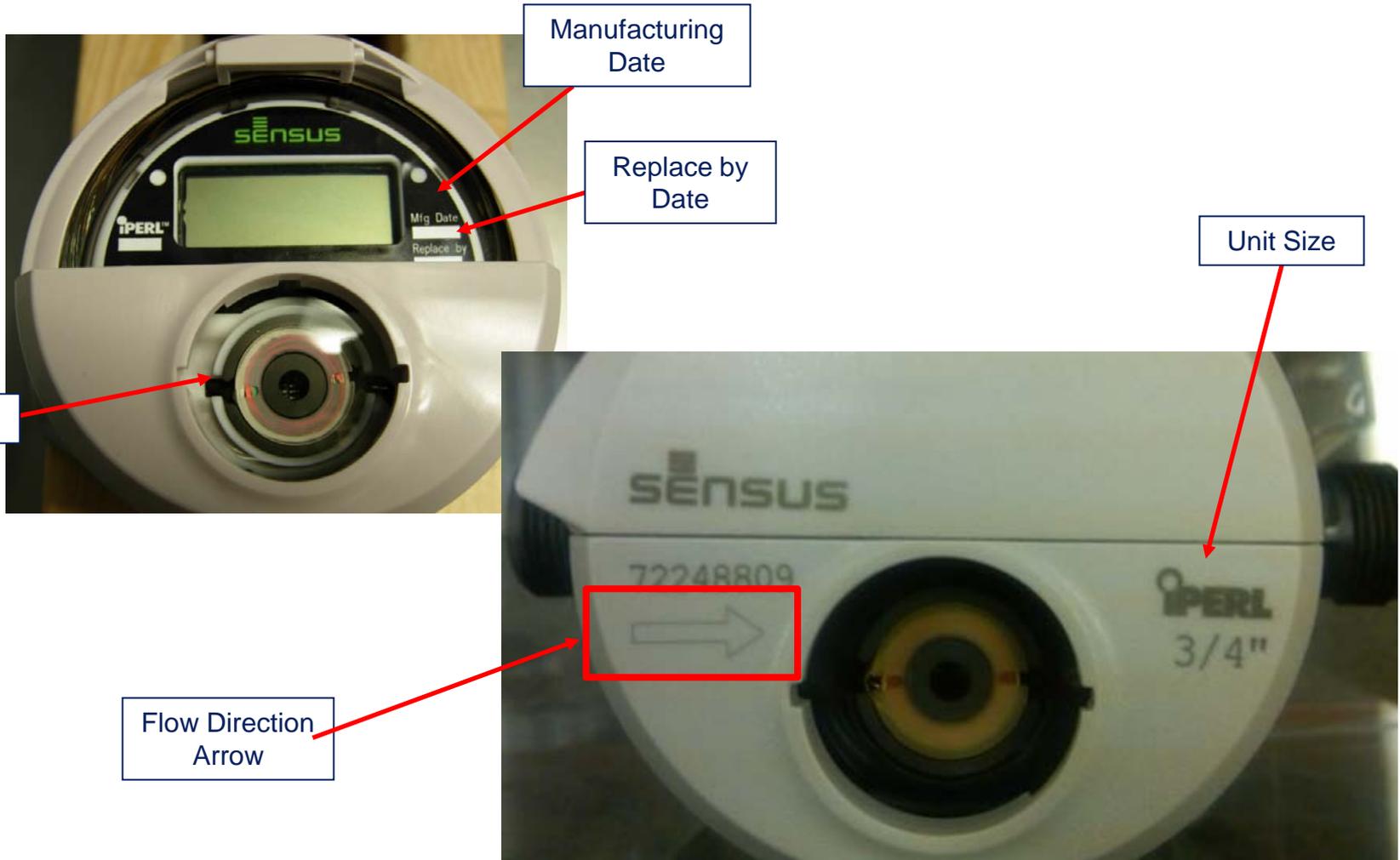


- 9 digit field programmable display



- Sealed, glass encapsulated electronic register
- Built-in strainer

Register Face



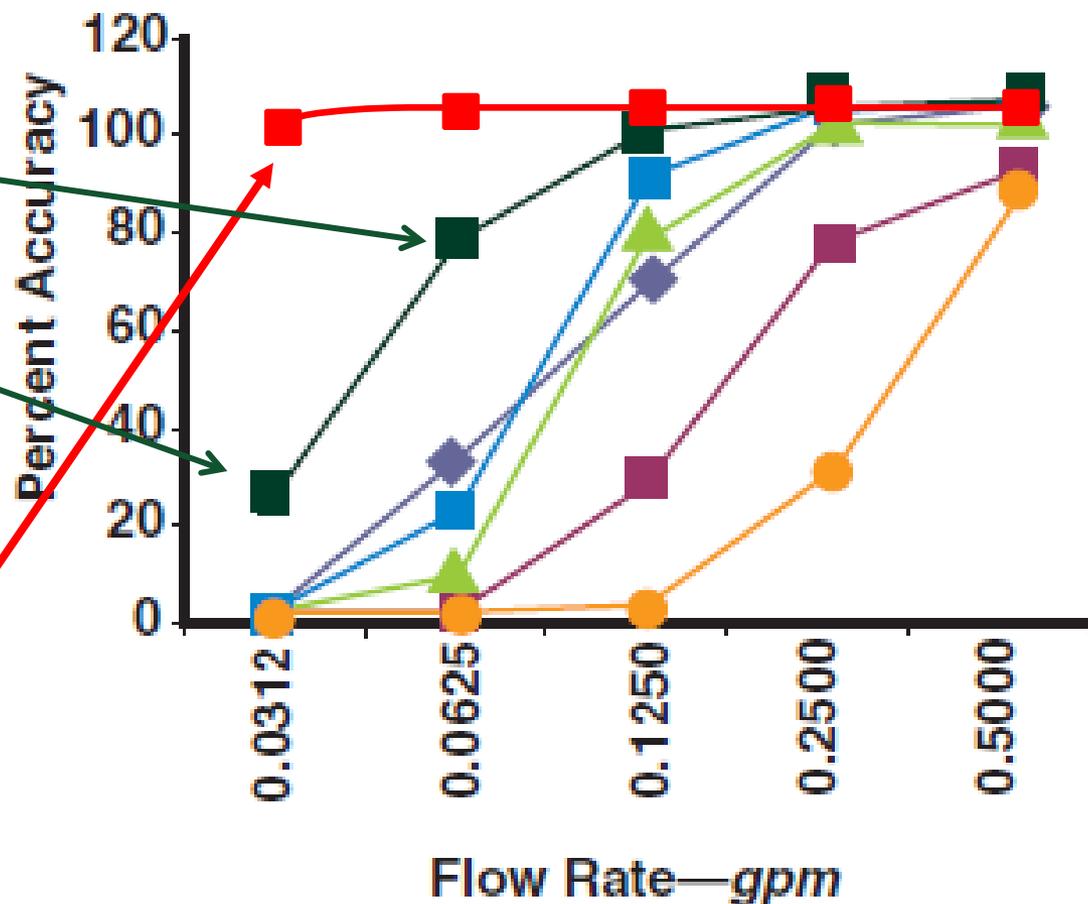
3/4" Mechanical Meter Accuracy at Low Flows

No Meters Registered More than 80% at 0.06 GPM

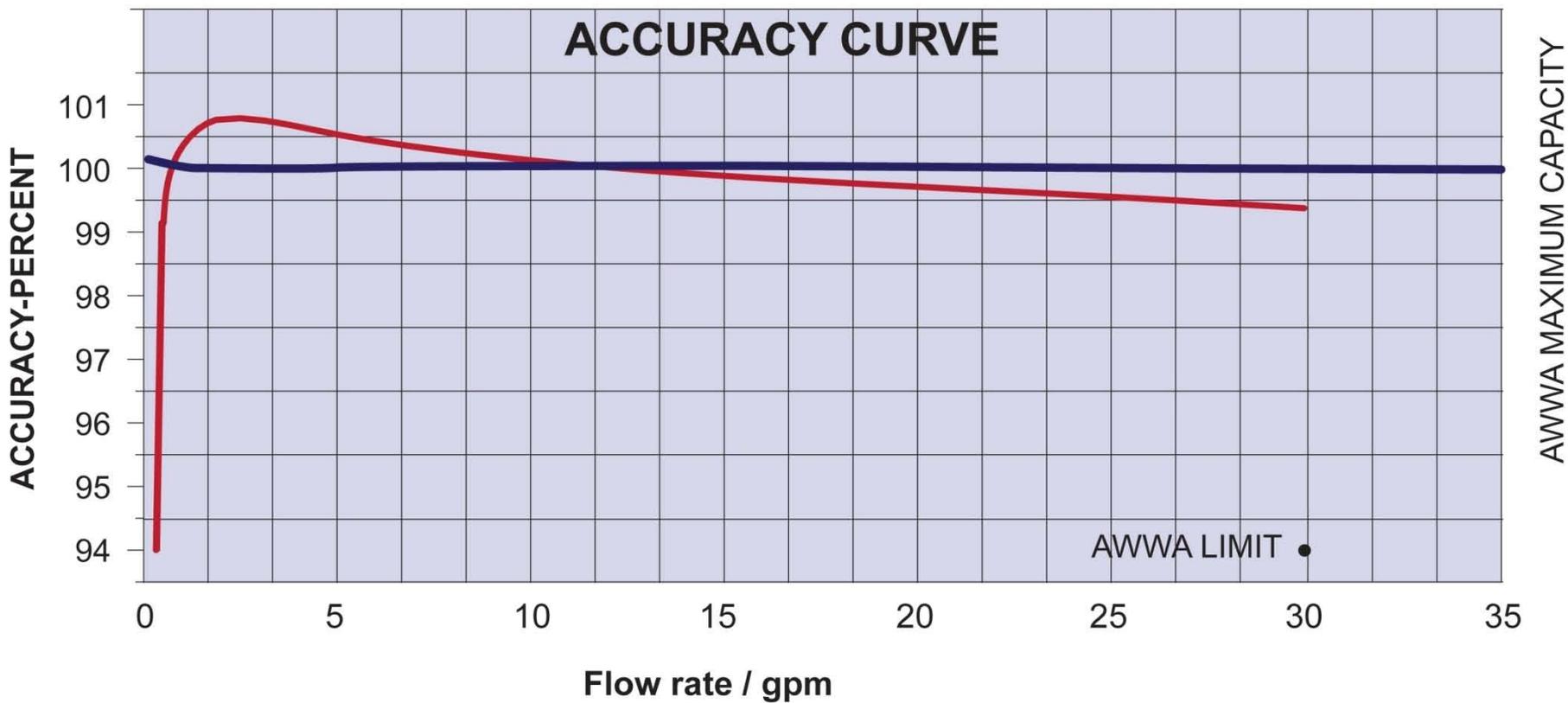
No Meters Registered More than 25% at 0.03 GPM

iPERL Measures 100% of flow at 0.1 GPM and at least 95% at 0.027 GPM

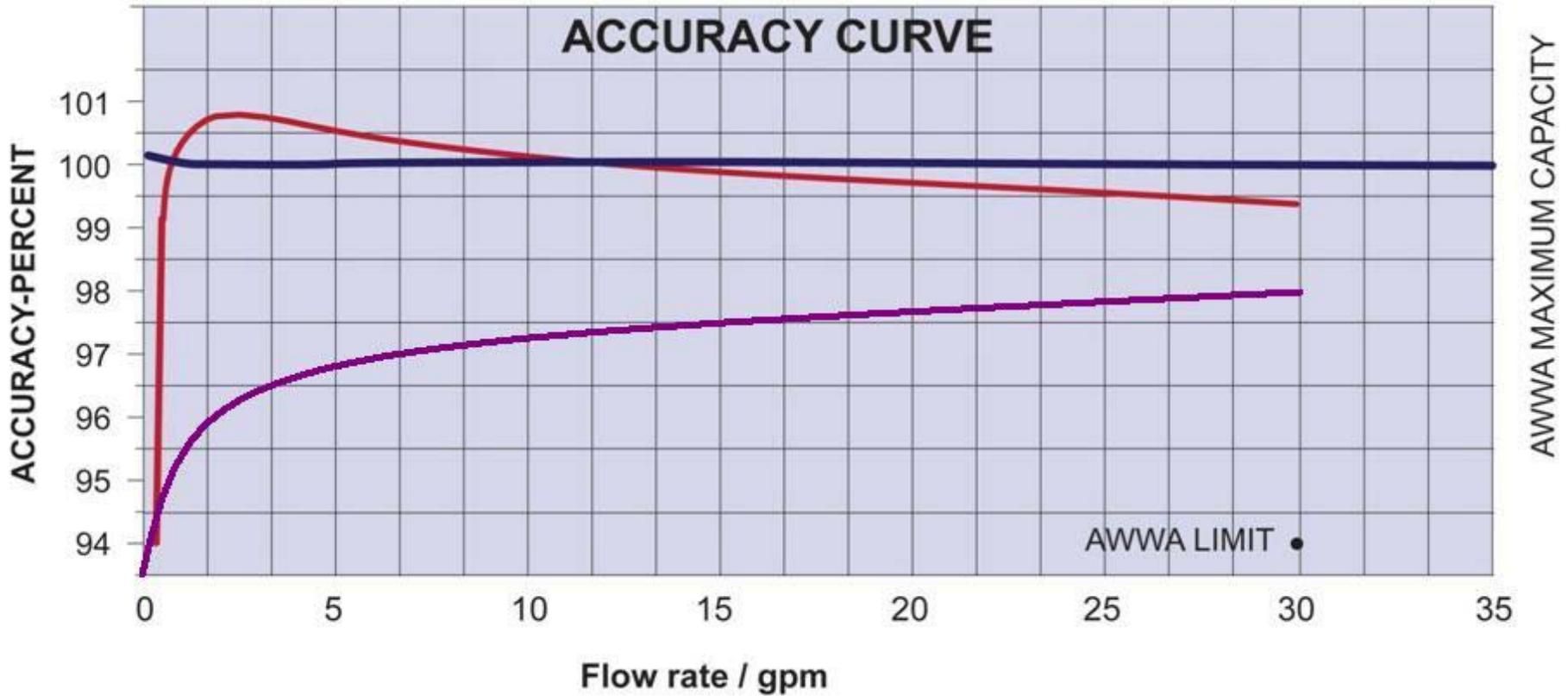
3/4-in. Average Meter Accuracy



iPERL Accuracy Curve



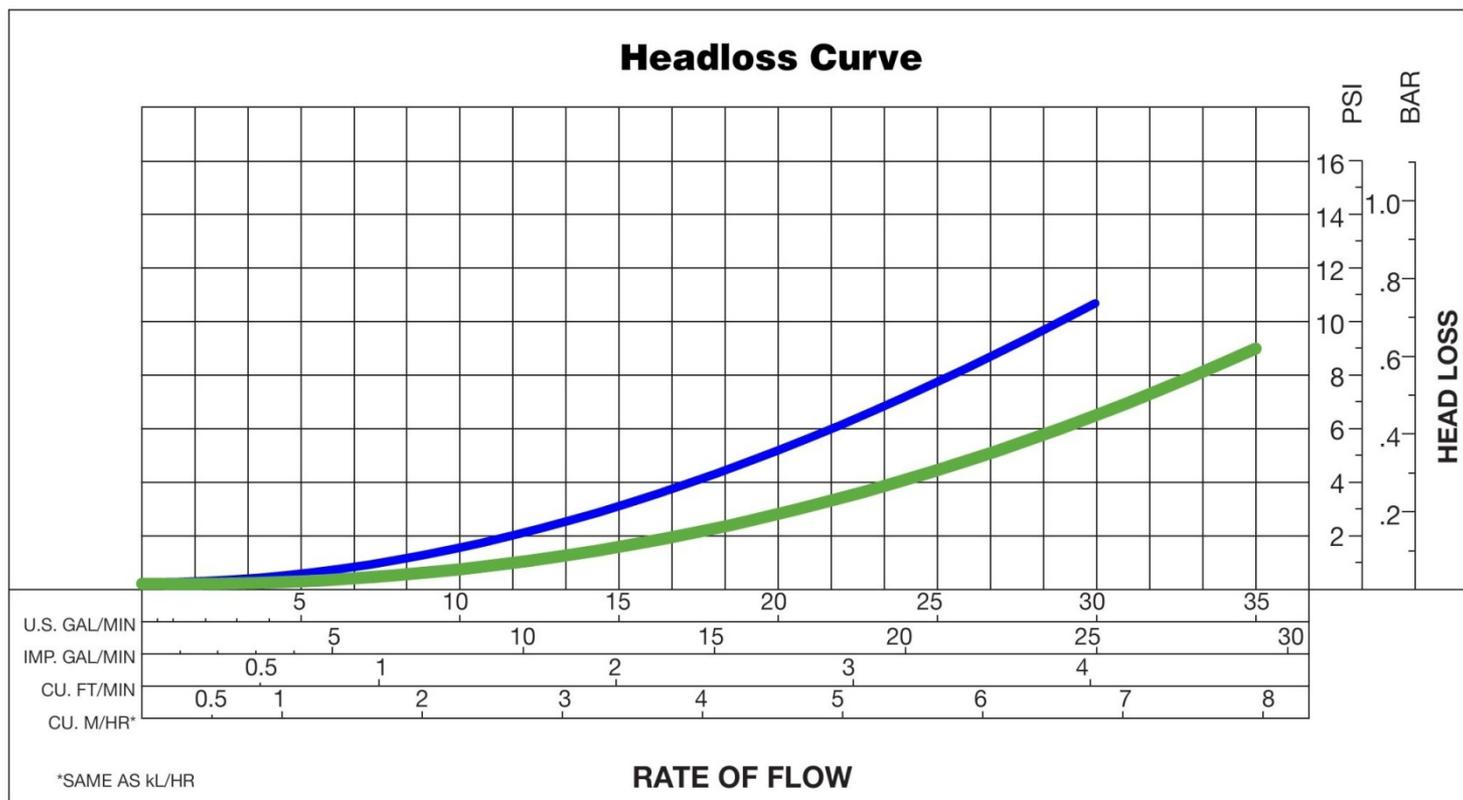
Typical PD Meter ———
iPERL ———



Typical PD Meter 

iPERL 

Typical 20 Year Old PD Meter 



Typical PD Meter —————

iPERL —————



Value Proposition

- **Accurate**

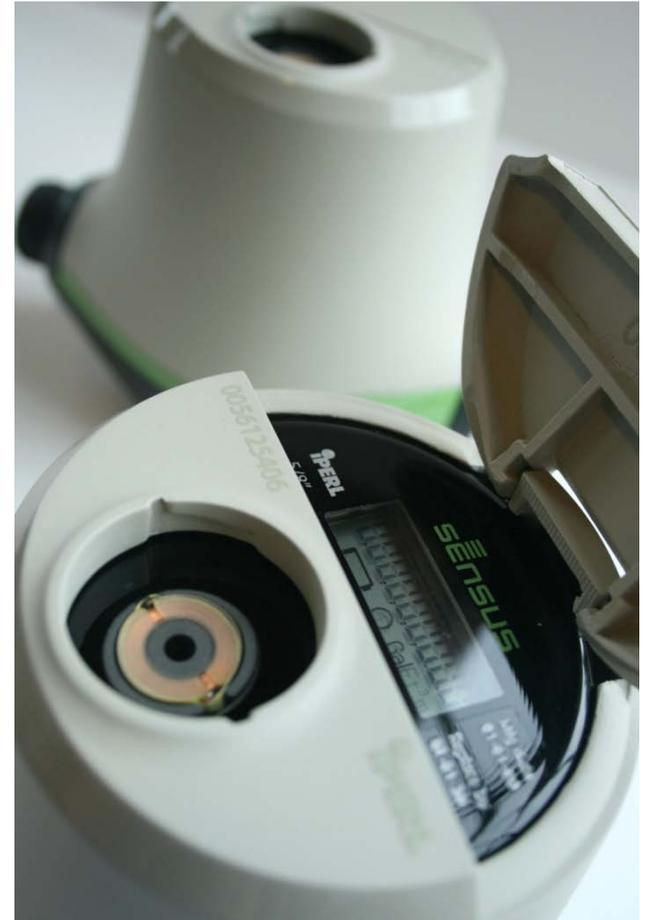
- Drives additional revenue via measurement to 20% lower flow rate than current products on the market
- Capture new meter accuracy measurement levels throughout the life of the iPERL which equates to additional revenue
- With a higher rate of clean water measurement, a correlating higher charge is realized for sewer

- **Intelligent**

- AMI connectivity allows utility to be quickly informed in the event of leaks, tampering, etc. for immediate resolution
- Through its self diagnostic alarms iPERL allows the utility to be warned before there is a failure and loss of measured water

- **Efficient**

- Reduced head loss results in less energy required by the utility to provide the same performance





Questions?

