

HADRONEX MONITORING SYSTEMS™ SMARTFLOE™

Keeping You Ahead of Your System™



SmartFLOE™ New Low-Cost Open Channel Flow Estimation

Flow measurement is highly valuable for any open channel water conveyance system.

Conventional flow measurement methods can be expensive and complex where reliability, ease of maintenance and data communications are often challenging.

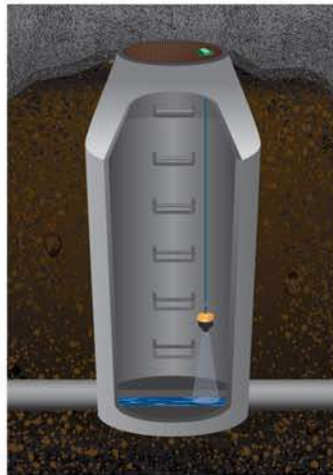
The all new, patent pending SmartFLOE™ Flow Estimation System provides a low-cost, low maintenance, high reliability means for flow measurement and communication. Using the core of the proven, non-contact SmartCover® monitoring system to collect and transmit data from anywhere on Earth, the SmartFLOE™ algorithm provides ongoing real-time measures of flow rate, delivering the data securely and effortlessly via an Internet browser or mobile device.

Key Features of SmartFLOE™

- Uninterrupted monitoring from any location through battery operation and satellite communication
- Ongoing data capture and transmission for analysis
- Highly secure and easy-to-use web browser viewing
- User-defined, on-the-fly parameter selections
- Easy, fast installation with ultra-low maintenance



SmartFLOE™
Unit Mounts Under
a Manhole Cover

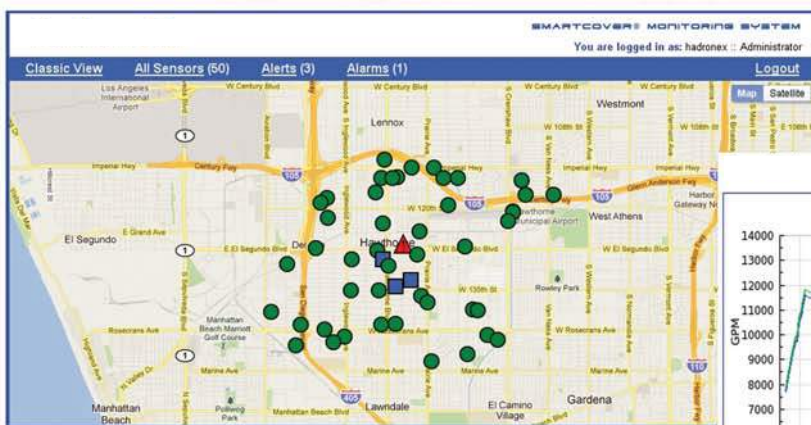


Use SmartFLOE™ for...

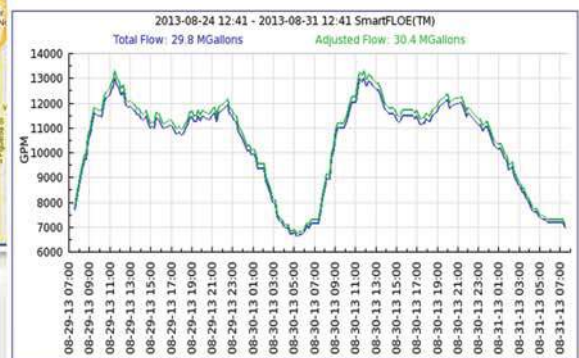
- Capacity Planning
- Hydraulic Modeling
- CIP project prioritization
- Operational Monitoring
- I & I Monitoring
- Level alarms

SmartFLOE™ Application Sites

- Wastewater Collection Systems
- Storm Water Systems
- Raw Water Conveyance Systems
- Any Open Water Channel



View sites on a map, view data graphically or perform analysis via off-line .csv file



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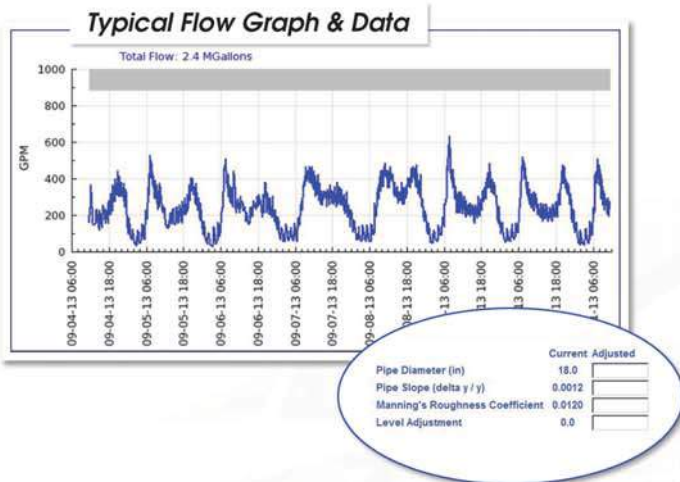


About Flow Estimation

Flow Level Optimized Estimation (FLOE) is a new approach using the well-proven Manning's Equation providing users a cost-effective means to acquire data at acceptable accuracies for estimating flow rates in open channels.

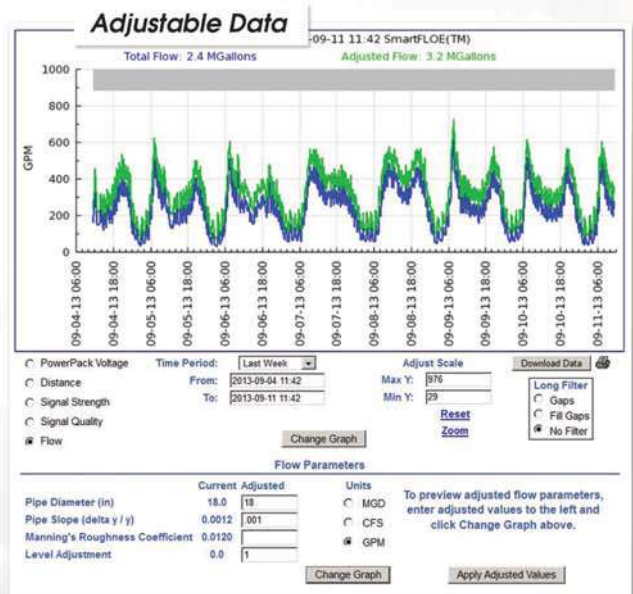
Flexible and Easy Adjustments

The SmartFLOE™ user-configurable algorithm provides flow rate data. For modeling, users can change parameters such as pipe diameter or slope for an instantaneous view.



System Status Alerts and Alarms

SmartFLOE™ enables receipt of vital information including level alarms and water flows to prevent SSO/CSO. With user-defined alarm settings, the system warns of impending overflow issues before they occur, communicating to assigned personnel via email or text. Users are informed of the system's operating status so maintenance can be planned well in advance.



SmartFLOE™ Specifications

SmartCover® Unit:

Weight:	4.5 lbs.
Size:	5" x 6" x 6"
Power:	3.6 VDC SmartCover® PowerPack™
Battery Life:	12 months - nominal
Environmental:	NEMA 6P, IP-68
Mounting:	Mechanical Mount
Antenna:	Low profile traffic rated reflector or round type
Level Sensor Range:	3 inches to 81 inches with option to 20 feet
Level Sensor Resolution:	0.1"
Intrusion Detection:	3-axis, continuous
Temperature Range:	-40°C to 80°C

Communication

Method:	2 way, wireless direct to satellite
Internal Reporting:	Upon Alarm and at 1 hour intervals
Status Data:	Flow Rate Estimates, Water Level, PowerPack™ Voltage, Radio Signal Strength, Maintenance Alerts, Alarms, and Acknowledgements
User Interface	Map GIS, graphs, maintenance and location logs, report and downloads
Security:	2048-bit, SSL, Username and Password Protection

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