



WAVELET CONTROL VALVE KIT

Model No. WA2140 - SE00013

SUMMARY

The Wavelet Control Valve Kit ensures a constant flow of water at a functional pressure and provides real-time information about a valve's status directly into the control system. This energy efficient Kit helps operators monitor changes in thrust demand for pressure reducing valves leading to more accurate predictive maintenance data.

A pressure differential in the valve causes additional water to flow through the system, leading to wasted water. High pressures can also rupture pipes, damage fixtures, and result in safety hazards. Use of the Control Valve Kit ensures optimal pressurization for increased operational efficiency and reduced system failure and labor costs.

WAVELET PLATFORM FEATURES

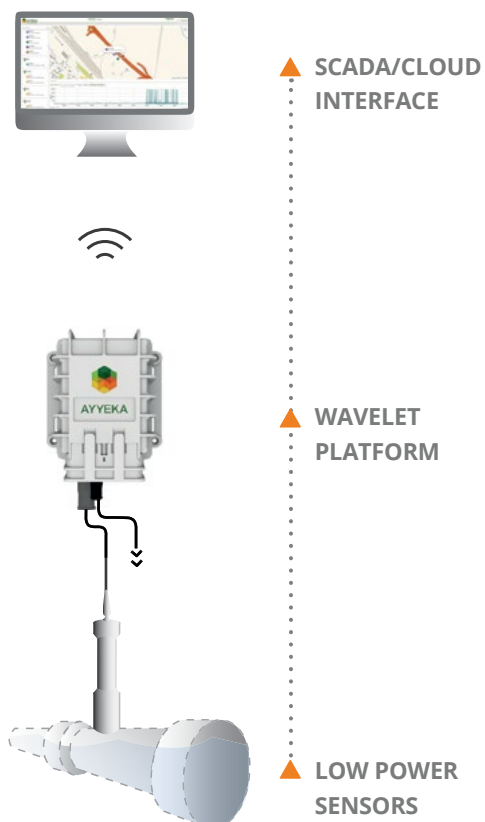
- ▶ PLUG-AND-PLAY
- ▶ BUILT-IN SCADA INTERFACE
- ▶ CYBER-SECURITY
- ▶ USER-FRIENDLY DATA VISUALIZATION
- ▶ CLOUD-BASED DATA STORAGE
- ▶ REMOTE NETWORK MANAGEMENT
- ▶ GLOBAL GSM CELLULAR SERVICE
- ▶ PROGRAMMABLE THRESHOLDS
- ▶ E-MAIL & SMS ALERTS
- ▶ GPS TIME & LOCATION SYNC
- ▶ LOW POWER CONSUMPTION
- ▶ AUTONOMOUS OPERATION



THE WAVELET PLATFORM

Wavelet brings together end-to-end, turnkey solutions that cover all of your continuous remote monitoring needs. Starting from the smart sensors, across the transmission platform, through data management, we have created unique monitoring kits to measure and monitor a range of water supply, water quality, wastewater and hydrologic parameters. Wavelet Kits are all designed to help facilitate more effective water network management.

Ayyeka's Wavelet Kit features a fully integrated, plug-and-play monitoring solution that fits seamlessly onto any water infrastructure and sends the data securely to you. Our Kits provide you with total visibility of your networks. The Kits are easy to setup and use, and will save valuable time and money.



PRESSURE SENSOR SPECIFICATIONS

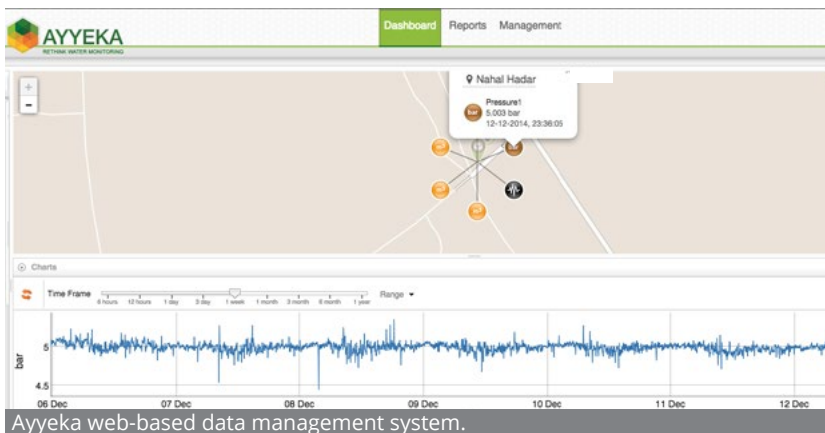
Operational Temperature	-15°C to 85°C (5°F to 185°F)
Cable Length	5 m (16 ft)
Materials	Ceramic FDM, PPS, Stainless Steel Type AISI 303
Weight	95g (3.4 oz)
Pressure Range	0 to 16 bar (232 psi)
Accuracy	<±0.3%



The pressure sensor allows for improved network management.

CASE STUDY

- ▶ **Client:** National Water and Wastewater Authority
- ▶ **Application:** Pressure Reducing Valve Sensing
- ▶ **Description:** The national water and wastewater authority required a remote monitoring system to collect data on upstream and downstream pressures, analyze the data to identify network inefficiencies, and reduce operational costs. The client needed a cyber-secure solution in order to continue using their internal servers.
- ▶ **Solution:** Ayyeka provided them a modular solution to monitor the pressure differential in order to reduce valve leakage. Ayyeka's solution included autonomous IT architecture and delivered data directly to their SCADA system.



WAVELET PLATFORM SPECIFICATIONS

DATA & SOFTWARE

Ayyeka Data Server	Ayyeka Private Cloud and/or Customer On-Premises Server
User Interface	Web-Based, Tablet & Mobile
Data Export Options	Excel, CSV
SCADA & 3rd Party Integration	OPC/DNP3/API
Data Encryption	AES 256
Internal Memory	32 GB

CONNECTIVITY & INTERFACE

Cellular Network	Multi-Cellular Carrier: 2G, 3G and CDMA (Verizon)
Data Transmission Profiles	Periodic, Data Dependent
Event Driven Alerts	SMS, E-Mail, API
Configuration & Upgrades	Remotely Over-The-Air, USB PC Connection
Antenna	Internal or External
SIM Card	Included

POWER

Primary Power Supply	Internal Lithium Battery
Operational Run Time	3,500+ Transmissions per Battery Pack, Field Replaceable Battery
External Power Supply (Optional)	4.5V-28V, Automatic Power Source Switching
Battery Level Notifications	Included

Ayyeka provides cyber-secure, plug-and-play, remote monitoring solutions designed for various markets. Founded in 2011, Ayyeka has an installed base in challenging locations and earned a reputation for excellent customer service. Bringing together a state-of-the-art hardware and cloud-based software package, Ayyeka's solutions are leading the infrastructure monitoring sector into the future.