

# AxSys MPU DATA SHEET

## Features

- 8 serial, 2 analog, 1 digital input(s)
- Built-in keypad in 2 line alpha-numeric display
- Data stored internally and/or on removable data card
- Fully portable, NEMA 4 enclosure
- Satellite, radio, and telephone modem options



## Description

The AxSys is a data acquisition instrument that collects, processes, stores and transmits data from sensors primarily used by organizations responsible for water resource management and control.

The AxSys is expandable so that the user can easily add additional data inputs to their monitoring system. For example, rating tables can easily be programmed into the AxSys and adjusted to calculate and report on water flow.

The AxSys is designed to accept a variety of signal inputs from any single parameter sensor with an analog or digital output, or any multi-parameter sensor using the SDI-12 serial interface. The opto-isolated output signals, available for alarms, chemical pacing or triggering samples, are optional.

Satellite, radio and telephone telemetry options are available with the AxSys to provide for real-time data transmission. Memory capacity is offered in the form of non-volatile onboard memory, as well as in a removable data card.

## Applications

### Surface Water Hydrology

- Stream gaging
- Water level
- Flow
- Quality

### Hydropower

- Headwater
- Tailwater
- Gate position and control
- Minimum flow monitoring
- Temperature
- Dissolved Oxygen

### Groundwater

- Long-term aquifer studies
- Pump tests and slug tests
- Pump control

### Wastewater

- Open-channel flows in flumes and weirs
- Sampling and chlorination control
- Water quality

**Corporate Headquarters**  
12067 NE Glenn Widing Drive  
Suite 106  
Portland, Oregon 97220

800.452.5272 Tel  
503.445.8000  
503.445.8001 Fax  
info@stevenswater.com  
www.stevenswater.com

Since 1911, Stevens Water Monitoring Systems, Inc. has provided complete water monitoring solutions including:

- Water Level Sensors
- Water Quality Sensors
- Soil Moisture Sensors
- Chart Recorders
- Staff Gages
- Telemetry Systems
- Data Collection Platforms

## Technical Specifications

### Power Requirements

10-17 VDC, <2 mA standby current (telemetry system may require additional power)

### Size

5.3 x 6.7 x 5.15 in (134 x 170 x 130 mm)

### Weight

3 lbs.

### Number of Inputs

One digital, one or two analog, or 8 SDI-12 Serial MultiDrop

### Keypad & Display

2 x 20 character alpha-numeric display, 4 key built-in touch keypad

### Recording Interval

1, 5, 6, 10, 15, 30 seconds

1, 5, 6, 10, 15, 30 minutes

1, 2, 4, 6, 8, 12, 24 hours

### Real-Time Clock

Accuracy  $\pm 3$  minutes/month, leap year correction

### Non-Volatile Memory

All setup parameters and clock, internal lithium battery

### Serial Port

RS-232, minimum  $\pm 5$  VDC levels, 300 to 9600 baud

### Environment

-40° to +70° C, to 100% humidity condensing in NEMA 4 configuration

### On-Board Data Storage

FLASH EPROM, 128K Bytes, capable of storing 60,000 readings

### Data Card Slot

LINEAR FLASH, PCMCIA, 256K Bytes, capable of storing 120,000 readings. Contact Stevens for availability.

### Options

2 Alarms, Tipping Bucket Precipitation Input Isolated and/or non-isolated 4-20 mA output

## Sensor Input Selections

### DIGITAL

#### Number of Sensors

One

#### Sensor Type

Bi-directional pulse count or digital quadrature

#### Sensor Power

5 or 12 VDC continuous, or 5 VDC auto-switched for quadrature encoder

#### Maximum Rate

500 pulses per second

### ANALOG

#### Number of Sensors

One or Two

#### Input Type

2 or 3 wire, 4-20 mA current loop

#### Sensor Power

24 VDC, under firmware control

#### Accuracy & Resolution

0.25% accuracy, 0.1% resolution

### SERIAL

#### Number of Sensors

Up to 8

#### Input Type

SDI-12

#### Sensor Power

12 VDC continuous, 5 or 12 VDC under firmware control (switched)

Please contact Stevens Water Monitoring Systems for configuration and ordering options:

Phone: (503) 445-8000 or (800) 452-5272

Email: info@stevenswater.com

Web: [www.stevenswater.com](http://www.stevenswater.com)