

# Flow10™ Sap Flow System



## Dynagage Respected Throughout the World

The Dynagage Flow10 Sap Flow system and Dynagage sensors have been servicing research plant scientists throughout the world for over 30 years. The Flow10 software makes working with Flow10 sap flow system easier than ever before with built-in algorithms for efficient and faster data analysis. Powerful functions include auto-zero and sensor status built into the data logger program. Sap flow data recalculation and automatic charting with an Excel™ Macro link makes the system a superior water relations measurement system. Sap Flow has never been this easy and powerful.

Dynagage sap flow sensors are the most accurate and reliable sensors available for measuring plant sap flow. Dynagage is now a key technique in modern water management, hydrology, crop studies, plant water relations, and biomass production.

The Flow10 system does not include gages and is configured with ten 25 ft. (7.6 m) long sensor cables.

## Applications

Sap flow measurements have an almost unlimited number of applications. Sap flow and transpiration rates provide commercial benefits from accurate irrigation schedules, improved irrigation set points and real crop ET coefficients. Sap flow is key data to model annual forest growth rates and conduct environmental remediation projections. After all, who can tell better than the plant how much water is consumed under varying conditions.



## Features

- **Advanced Custom data logger**
- **30 MB flash memory**
- **Real-time sap flow**
- **Direct transpiration readings**
- **Fixed 10 sensor system, may add SDI sensors**
- **Auto Ksh, auto zero algorithm built in**
- **AVRD high efficiency regulator - 2 voltage outputs**
- **Easy to use logger support software, PC400**
- **Optional cell MODEM, WIFI, or RF**



# Specifications

<b>Datalogger</b>	Custom logger with built-in sap flow calculator
<b>Base Inputs</b>	3 Differential Channels - Analog, SDI-12 and pulse
<b>Channel Expansion</b>	AM16/32 Relay Multiplexer
<b>Expanded Inputs</b>	30 input Multiplexer, 3 inputs per sensor
<b>Sensor Capacity</b>	(10) Dynagages or (10) SGEX
<b>Range</b>	-100 to 2500 mV
<b>Resolution</b>	.2 uV with custom calibration
<b>Voltage Regulation</b>	AVRD Dual Voltage, 1.5 - 10 V, 5 A each
<b>Base Memory</b>	30 MB - Data flash
<b>Communications</b>	USB for laptop connectivity RS232
<b>PSU12-IP67</b>	12 V DC 120/230V sealed 5 A power indoor/outdoor application. Battery is customer supplied
<b>Solar Option</b>	12 V connections supplied for solar panel/marine battery
<b>Sensor Cables</b>	10 x 7.6 m (25 ft) with Connectors
<b>Enclosure</b>	White fiberglass, NEMA 4X, with pole mounts, lockable, 10 x 12" (25.4 x 30.5 cm)

## Ordering Information

### **Flow10-Dynalog**

Sap Flow System for (10) Dynagage - EXO Sap Flow Sensors, including Power Supply. Custom logger

### **Dynagages - SGEX**

Select Gage Sizes and Quantity (see Dynagage or EXOSkin specifications)

### **PC-LOG**

PC400, PC log support for direct connection

### **PC-LOGNET Optional**

LoggerNet, PC support software for Cellular or radio modems

### **EXQCW-25, EXQCW-50**

Extra Cable Length in lengths 25' or 50' (7.6 m or 15 m)

### **EQCW-50/LR, EQCW-75/LR**

Special low resistance cable for SGA50, SGB70, or SGA100. Lengths available 50', or 75'

### **MSX20-R, MSX30-R, MSX75-R**

Solar Panels for 20 - 75 W with 12 V regulator for deep cycle batteries

### **CHG120**

Spare 12 V Battery and Charger 120/220 VAC, for AC power only (included)