

# PROGRAMMABLE AUTOMATIC WATER SAMPLER (PAWS) BRIGHTWATERS MODEL 127

**OVERVIEW.** The Model 127 PAWS is an oceanographic water sampling system allowing unattended collection of up to a five liter surface water sample in a sampling bag. The PAWS consists of a peristaltic pump and interface circuitry inside a watertight PVC case, a sampling port, and a sample collection bag housed inside a free flooding protective housing. The PAWS is intended for unattended or remote sampling on ships, fixed or drifting buoys, from docks, etc.

**SAMPLING PUMP:** Built-in peristaltic pump inside watertight PVC case section. Flow rate 0-170 ml/minute.

**PUMP/ELECTRONICS ENCLOSURE:** watertight PVC housing protecting pump and custom interface board. Access through o-ring seal for maintenance such as peristaltic tubing replacement. Pump input and output routed to bulkhead fittings in endcap.

**SAMPLE PORT:** Screened port for sample collection inlet, exact position can be adjusted by end user.

**SAMPLE COLLECTION:** Designed to accommodate 5 liter sampling bag (Tedlar or Teflon, SKC or equal). Sample bag housed in free-flooding housing section so overall weight does not change during sample collection. Free-flooding section provides physical shield for sample bag, protecting it from external damage.

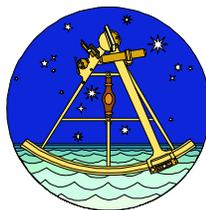
**POWER AND COMMAND:** 4 pin underwater connector on 0.6 meter pigtail: power, ground, Rx/D, Tx/D.

**COMMAND INTERFACE:** RS-232. Command set includes pump start, pump stop, set pump rate, read shaft rotation sensor, read internal flooding sensor, read internal temperature/humidity sensor.

**POWER:** 12 to 24 volts DC. Maximum power operating  $\leq 12W$ , standby/shutdown  $< 200 \mu A$ .

**DIMENSIONS AND CONSTRUCTION:** Maximum outside diameter of housing 7.5 inches. Maximum length including pump and sampling bag housing 18 inches. External materials appropriate for marine and freshwater deployment: PVC and other plastics, 300 series stainless steel hardware. Easy access for servicing pump, tubing, and sampling bags.

*Brightwaters Instrument Corporation has supplied affordable semicustom and full custom scientific and oceanographic equipment to governments, universities, and the private sector since 1990.*



Brightwaters Instrument Corporation  
551 Lombardy Boulevard  
Brightwaters New York 11718 USA  
Telephone: 631-968-7840  
FAX: 631-968-6471  
Email: [info@brightwaters.com](mailto:info@brightwaters.com)  
Web: [www.brightwaters.com](http://www.brightwaters.com)