

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.

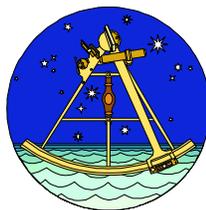
POWER AND COMMAND: 4 pin underwater connector on 0.6 meter pigtail: power, ground, Rx/D, Tx/D.

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.

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