



The leading **designer** and manufacturer of

**surface
drifters**

ADOS Temperature Profiling System



The ADOS Temperature Profiling system is a rugged, low-cost instrument that defines the ocean surface layer thermal structure by accurately measuring temperature at up to 30 depths from sea surface to 150 meters anywhere in the world's oceans. ADOS uses SmartSensors™ affixed to mooring wire to measure temperature and pressure. SST is measured by the surface float. SmartSensors are self-powered micro-controller mini-instruments, that sample temperature and pressure and communicate that data to the surface sphere through mooring wire over an inductive modem data link. SmartSensors eliminate troublesome underwater connections to expensive multiconductor cables. The SmartSensor data link is so forgiving that a sensor can be cut from the string and replaced in 15 minutes. Transitions between SmartSensors and hydrographic wire are protected by tough, flexible urethane stress reliefs. Pressure sensors can be added to SmartSensors to measure in situ pressure for applying corrections for cable streaming in environments with strong shear currents.

SmartSensors use aged thermistors calibrated to ± 0.01 C. 50 calibrations are stored in non-volatile RAM; final temper-

ature values are sent to the surface float, not uncorrected data.

SmartSensor firmware has been carefully constructed to minimize power consumption. As many as 400,000 measurements can be made in the life of a node.

GPS provides accurate time and locations for the instrumentation. GPS time is used to correct the on-board times and GPS positions are included in the data messages with temperature structure data..

ADOS data is relayed to the user through the Argos System, or Iridium SBD. Clear-Sat-ADOS may be deployed as a drifting or moored temperature sensing arrays.

Technical Specifications:

Surface Float	46 cm diameter sphere, formed ABS with UV blocking. Wt 13.6 Kg.
Tether	0.4 cm black polyethylene coated & x & steel wire rope. HYdrographic mooring wire..
Power supply	13.5 VDC 112 Ah alkaline battery pack.
Data Options	Kenwood YT3000 Argos PTT. Or, Iridium 9601 Iridium SBD, option).
SST and temperature	-5.0 to 45.0 \pm 0.01 C. 12-bit resolution with standard calibration:.
GPS	Latitude, longitude \pm 0.00005 deg. Accurate; on-demand, "on-the-hour" positioning every 2, 1, 0.5, or 0.25 hour on.
Environmental	-50 to 30C storage; -5 to 45C operation.

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