PROVOR CTS3
Autonomous oceanographic Profiling float for ARGO program

**Main features**

- FULLY ARGO COMPLIANT
- SELF BALLASTED FLOAT
- AUTONOMY FOR UP TO 240 CYCLES *

- THERICAL AUTONOMY WITH CTD PUMP IN SWITCHED MODE UP TO 270 CYCLES

*cycle is 2000 meters drift during 10 days, ARGOS telemetry. Transmission of 92 and 18 points averaged acquired during profile and drift.

**DESCRIPTION**

PROVOR CTS 3 has been designed to fulfill ARGO program recommendations. PROVOR CTS 3 is characterized by its large volume variation capability and has been designed in industrial partnership with Ifremer, French institute for sea research. PROVOR CTS3 is reliable with an optimized cost, and can be launched from any vessel at slow speed using only a rope and at high speed (20 knots checked) by using release kit and launching crate.

Based on its self-ballasting features PROVOR CTS 3 fan tail ready, able to be launched in all seas by removing a magnet.

Mission parameters can be modified by user before launching. During first descent, data are acquired in order to enable comparisons with CTD cast (Temperature, conductivity and depth). PROVOR CTS 3 is a platform able to carry a wide variety of load.

Examples of project recently development

PROVOR CTS 3 DO Conductivity temperature and dissolved oxygen

PROVOR A Conductivity temperature with Rafos acoustic positioning.

PROVOR B Conductivity, temperature with optical irradiance and transmitter Iridium data transmission

[www.nke-instrumentation.fr](http://www.nke-instrumentation.fr)
**TECHNICAL SPECIFICATIONS**

**TYPE PROVOR–CTS3**
SBE41 CP manufactured by Seabird Electronics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td><strong>Salinity</strong></td>
<td>Range 0 to 40 PSU&lt;br&gt;Initial accuracy ± 0.003 PSU&lt;br&gt;Drift &lt; 0.01 PSU / 5 years</td>
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<tr>
<td><strong>Temperature</strong></td>
<td>Range -5°C to 35°C&lt;br&gt;Initial accuracy ± 0.002°C&lt;br&gt;Drift &lt; 0.002°C / 5 years</td>
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<tr>
<td><strong>Pressure</strong></td>
<td>Range 0 dbar to 2100 dbar&lt;br&gt;Initial accuracy ±2.4 dbar&lt;br&gt;Drift &lt; 5 dbar / 5 years</td>
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**FLOAT DIMENSIONS**
- Overall Length 225 cm with antenna
- Hull Length 170 cm
- Hull Diameter 17.3 cm
- Damping collar 31.5 x 25.5 cm
- Weight 34 kg

**FLOAT CONSTRUCTION**
- Hull Anodized aluminum casing

**OPERATION FEATURES**
- Operation depth Up to 2000 dBar
- Number of profiles capabilities
  - a. Up to 220 cycles in contiguous pumping mode
  - b. Up to 270 cycles in switched mode

**ENVIRONMENTAL OPERATING CONDITIONS**
- Operating temperature -2°C to 35°C
- Operating life 4.5 years at sea
- Power supply Lithium cells (Alkaline battery also available)
- Operating depth 2000 dbar

**STORAGE CONDITIONS**
- Temperature -20°C to 70°C (-4°F to 158°F)
- Time Before Use 1 year, real time clock saved by separate lithium battery

**BUOYANCY MANAGEMENT**
- Principle Oil ballast with pump
- Accuracy ±0.03 m (98.4 ft.)

**USER INTERFACE**
- A - Using connector<br>  Function Mission programming, float checking, etc.<br>  Terminal Personal Computer<br>  Link RS232 Serial port
- B - Activation By magnetic switch<br>  Remove magnet Launches float

**TELEMETRY**
- ARGOS for Data Transmission and localization

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Specified Range</th>
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<tbody>
<tr>
<td>Salinity</td>
<td>0.001 PSU</td>
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<tr>
<td>Temperature</td>
<td>0.001 °C</td>
</tr>
<tr>
<td>Pressure</td>
<td>1 dbar</td>
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