

PROVOR CTS3 DO / DO I

**Salinity - Temperature - Dissolved Oxygen – Depth
Autonomous oceanographic ARGO profiling float
with ARGOS 2 or Iridium transmission**



Profiling floats

PROVOR CTS3 DO and DO I are efficient and reliable autonomous profiling floats designed to acquire CTD and Dissolved oxygen profiles: from 2000 m to the surface.

Once at the surface, data are sent via satellite and a new cycle begins.

The PROVOR DO is proposed with transmission by ARGOS or IRIDIUM. ARGOS is one way data collection and positioning by satellites, IRIDIUM associated with GPS is a two ways communication system enabling data collection, the positioning and remote control facilities.

The PROVOR is a cost-effective float with hydraulic feature enabling a deployment anywhere in the ocean without preballasting: this enables to simplify deployments. It has been developed in industrial partnership with Ifremer.

PROVOR CTS3 DO: ARGOS transmission

PROVOR DO I: IRIDIUM and GPS

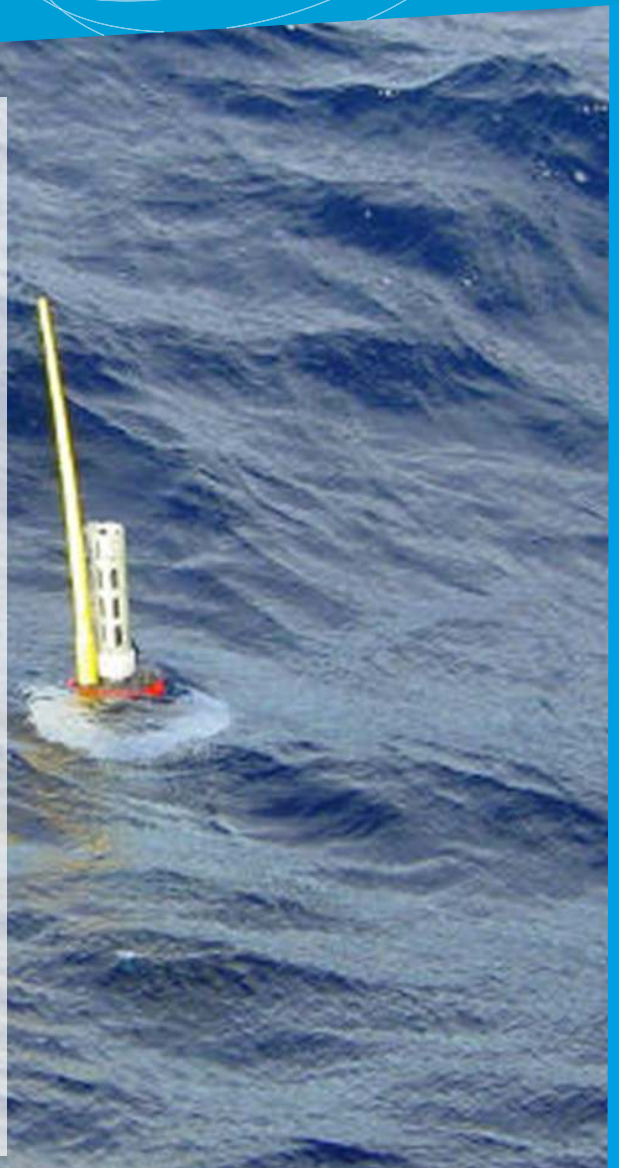
Main characteristics:

- Sea Bird and Aanderaa sensors proven metrology
- High sampling rate with Iridium up to 2000 pts
- Down to 2000 m depth
- Easy connectivity
- Self-ballasted float

More than 700 PROVOR have been produced in several versions, including:

PROVOR CTS3 for ARGO core mission with CTD

PROVOR CTS4 for BioGeoChemical applications



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INSTRUMENTATION

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PROVOR CTS3 DO / DO I

Data collection and PROVOR positioning via ARGOS satellite or Iridium satellites

TECHNICAL SPECIFICATIONS

TYPE PROVOR CTS3 DO		TYPE PROVOR CTS3 DO I
Seabird	Salinity	
Electronics	Range 0 to 40 PSU	
SBE 41 CP	Initial accuracy ± 0.003 PSU	
	Drift < 0.01 PSU / 5 years	
	Temperature	
	Range -5° C to 35° C	
	Initial accuracy ± 0.002° C	
	Observed drift < 0.002° C / 5 years	
	Pressure	
	Range 0 dbars to 2100 dBars	
	Initial accuracy ± 2.4 dBar	
	Drift < 5 dBar / 5 years	
DO Optode Aanderaa 4330	Range 0 µM/l to 500 µM/l	
	Accuracy 8µM/l ± 5% (sensor processed)	
MECHANICAL FEATURES	Overall Length 225 cm with antenna	
	Hull Length 170 cm / Hull Diameter 17.3 cm	
	Max Diameter 35 cm (damping collar)	
	Weight 34 kg	
	Hull anodized aluminum casing	
BUOYANCY CONTROL	Principle Oil ballast with high pressure pump	
	Positioning accuracy ± 30m (98.4 ft.)	
NUMBER OF PROFILES COMPUTED	210 cycles with 110 pts, 10 days / CTD in continuous pumping / 2000 meters	300 cycles with 110pts, 10 days /CTD in continuous pumping / 2000 meters
		150 cycles with 1000 pts, 10 days / CTD in continuous pumping / 2000 meters
OPERATING CONDITIONS	Operating temperature -2°C to +35°C	
	Operating life 4.5 years at sea	
	Power supply Lithium cells (Alkaline battery available)	
	Operating depth up to 2000 dbars	
USER INTERFACE	a - Using connector	
	Mission programming, float checking, etc.	
	Terminal Personal Computer BT link	
	b- Fan tail ready	
	Remove magnet launches float	
TELEMETRY	ARGOS system—Time on surface depending on the quantity of data to transmit with resolution	IRIDIUM system by Data Transmission and remote control. Mission parameters modification possible after launching
	Salinity 0.001 PSU	SBD 200 Bytes
	Temperature 0.001°C	Resolution of message transmitted:
	Pressure 1 dbar	Salinity 0.001 PSU
	DO 0.002° TC	Temperature 0.001°C
	Phase	Pressure 0.1 dbar
	Max sampling 300 pts	DO 0.002°: C1Phase & C2Phase, 0.001°C: optode temperature
		Max sampling 2000 pts
STORAGE CONDITIONS	Temperature -20° C to +70° C (-4° F to +158° F)	
	Maximum storage time before use: 1 year	

Phases and temperature are transmitted in compliance with O2Argo group for improved accuracy

PROVOR CTS3 DO



PROVOR CTS3 DO I



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