

# SeaKing 700 Series

## Integrated Oceanographic Sensor Suite



The SeaKing Bathymetric system comprises up to four high resolution sensors - a depth sensor, conductivity probe, temperature probe and the PA500 altimeter. Two standard configurations are available, either as a pressure only package (SeaKing 701) or as a pressure, conductivity and temperature package (SeaKing 704). The sensors form an integrated package, however, the PA500 altimeter is on a cable and can be mounted separately on the ROV which allows positioning of the individual sensors away from areas of masking or disturbance such as vehicle structure or thruster wash. For the SeaKing 704 full water column profiling is achieved by dynamically modifying a lookup table which contains all measured parameters versus depth. This table may be stored by the surveyors and re-loaded as required.

### Key Features

- Real-time monitoring of conductivity
- Real-time monitoring of temperature
- 700m to 4000m depth ratings available
- Robust and proven design
- Reliable and accurate sensors

### Altimeter

Make	Tritech International
Type	PA500
Weight Air/Water	1.15 kg/0.8 kg
Frequency	500kHz
Beamwidth	6° conical
Range	0.3 to 50m
Resolution	1 mm
Material	Stainless steel

### System - physical

Weight in air	Aluminium: 3.5kg (4.2kg with CT probe)
Weight in water	Aluminium: 1.5kg (2.1kg with CT probe)
Weight Air/Water	Anodised aluminium alloy (6Al4V titanium alloy or stainless steel optional)

### System - electrical

Power consumption	24 - 28V DC at 8VA (nominal)
Communications	ARCNET, RS232

### Depth Sensor

Make	Paroscientific Digiquartz
Repeatability	0.01% FSD
Hysteresis	0.015% FSD
Drift	0.015% FSD

### Temperature Sensor

Make	Teledyne RDI (Falmouth Scientific)
Type	Platinum resistance
Range	-5 to 35°C
Accuracy	±0.05°C
Drift	±0.005°C per month

### Conductivity Sensor

Make	Teledyne RDI (Falmouth Scientific)
Type	Platinum resistance
Range	0 to 6.5 S·m <sup>-1</sup>
Accuracy	±2.0mS·m <sup>-1</sup>
Drift	±0.5mS·m <sup>-1</sup> per month