The SeaGuard CTD is a primary tool for determining essential physical properties of sea and fresh water. Standard parameters are Conductivity, Pressure/Instrument depth and Temperature. From these parameters the salinity of the water as well as the density are calculated.

The SeaGuard CTD is designed for continuous recordings of salinity (via conductivity measurements), temperature and depth (via pressure measurements) used in long term deployments. Typical application areas are related to e.g. coastal circulation, climatic studies and aquaculture. The SeaGuard CTD can also be used as a multi-parameter platform for additional measurements.

The included Conductivity Sensor (4319B) is an intelligent sensor based on an inductive principle. This provides for stable measurement without electrodes that are easily fouled and may wear out in the field.

The included Temperature Sensor (4880/4060) is an intelligent sensor based on a thermistor-bridge.

The included Pressure Sensor (4646/4117) is a compact yet intelligent sensor based on a silicon piezoresistive bridge sampled and temperature compensated by an advanced Digital Signal Processor.

The output parameters from the SeaGuard CTD are easily presented in SeaGuard Studio. Salinity, Density, Depth and Sound of speed is post-calculated in SeaGuard Studio.

The SeaGuard CTD and the Aanderaa smart sensors are interfaced by means of a reliable CANbus protocol (AiCaP) using XML for plug and play capabilities. The smart sensors can be mounted directly on the top end plate of an Aanderaa SeaGuard and are automatically detected and recognized.

The SeaGuard CTD can be used with Aanderaa Real-Time Collector for real-time data.

The SeaGuard CTD has 2 battery compartments for long deployment time.

DATALOGGER 3860/3860A
A rugged electronic device for logging up to 30 Aanderaa sensors. This unit is the heart of Aanderaa’s new Data Buoy 4700.

Features:
• 30 Sensor inputs
• 2-way communication port for connection to modem, enabling remote data downloading and programming.
• 1-way communication port for connection to Radio communication, enabling long distance real-time data.
• In case of communication failure, recorded data is stored internally.

The included Pressure Sensor (4646/4117) is a compact yet intelligent sensor based on a silicon piezoresistive bridge sampled and temperature compensated by an advanced Digital Signal Processor.

The output parameters from the SeaGuard CTD are easily presented in SeaGuard Studio. Salinity, Density, Depth and Sound of speed is post-calculated in SeaGuard Studio.

The SeaGuard CTD and the Aanderaa smart sensors are interfaced by means of a reliable CANbus protocol (AiCaP) using XML for plug and play capabilities. The smart sensors can be mounted directly on the top end plate of an Aanderaa SeaGuard and are automatically detected and recognized.

The SeaGuard CTD can be used with Aanderaa Real-Time Collector for real-time data.

The SeaGuard CTD has 2 battery compartments for long deployment time.
Input signal: Up to 30 VR22 or SR10 sensors
Recording intervals: 0.5, 1, 2, 5, 10, 20, 30, 60, 120, and 180 minutes. In addition: non-stop and remote start. 4 seconds each channel.
Remote Start: 5V positive pulse to pin 24 of the PDC-4 output
Resolution: 10-bit binary
Accuracy: ±1 bit binary
Battery Indication: Range: 6-15 V
Output signals: Aanderaa 10-bit PDC-4 code
Last reading & Com port: ASCII coded selectable from 1200 to 9600 baud, 8 data bit, 1 stop bit, no parity, no handshake. RS-232C string format. See Technical Description TD 216, Operating Manual Data-logger 3860
Internal storage: RAM (see table in Manual)
Current Consumption: Quiescent: 40µA, 10mA average when operating 7 to 14V DC
Power Supply: 7 to 14V DC
Operating Temperature: -40 to +60°C
Material and Finish: Scotchcast molding with hard anodized aluminum case, 10-15µ
Weight: 500 grams
Warranty: Two years against faulty materials and workmanship
Accessories optional: AC/DC Adapter 3373

PIN CONFIGURATION
01. Channel 18 26. Channel 15
02. Channel 20 27. Channel 6
03. Channel 22 28. Channel 7
04. Channel 24 29. Control Voltage
05. Channel 26 30. Bridge Voltage
06. Channel 28 31. Channel 4
07. Channel 30 32. Channel 9
08. Txd, Last Reading 33. System Ground
09. Voice Control 34. Channel 11
10. Txd, Com. Port 35. Channel 2
11. DCD 36. Channel 13
12. NC 37. NC
13. NC 38. NC
14. -9V 39. Transceiver Control
15. Channel 14 40. Rxd, Com. Port
16. Channel 10 41. Ring
17. -9V 42. Rxd, Last Reading
18. Battery 43. Channel 31
19. Channel 3 44. Channel 29
20. Channel 8 45. Channel 27
21. Channel 12 46. Channel 25
22. Bridge Ground 47. Channel 23
23. Channel 5 48. Channel 21
24. PDC-4 Output 49. Channel 19
25. Channel 16 50. Channel 17

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