Conductivity is a key parameter for in-situ determination of several fundamental physical properties of seawater. For seawater, the ability to conduct electrical current is mostly dependent on temperature and the amount of inorganic dissolved solids. This means that, together with temperature and depth information, a good estimate of the salinity may be determined.

Salinity is defined as the concentration of dissolved solids. Other important properties of seawater are again dependent on the salinity. Among these are the density and the speed of sound.

The Conductivity Sensor 5860 is based on an inductive principle. This provides for stable measurement without electrodes that are easily fouled and may wear out in the field.

Utilization of miniature components have made it possible to integrate all the required electronics.

The output format for 5860 are RS-232.

Output parameters are conductivity, temperature, salinity, density and sound speed. Data can be presented in engineering units or raw data.

Aanderaa offer a easy to use configuration sofware; AADI Real-Time Collector, both for configuration but also logging of data.

As alternative to this software you may also use a terminal sofware like Terra Term or Hyper Terminal.
**Specifications**

**Conductivity:**
- Range: 0–7.5S/m (0–75mS/cm)
- Resolution: 0.0002S/m (0.002mS/cm)
- Accuracy:
  - 5860A: ±0.005S/m (±0.05mS/cm)
  - 5860B: ±0.0018S/m (±0.018mS/cm)
- Response Time (90%): <3s \(^1\)

**Temperature:**
- Range: -5–40°C (23-104°F) \(^2\)
- Resolution: 0.01°C (0.018°F)
- Accuracy: ±0.05°C (±0.09°F) (±0.1°C for interval <30s.)
- Response Time (63%): <10 seconds

**Output format:**
- RS-232

**Output Parameter:**
- Conductivity, temperature, salinity, density and sound of speed

**Sampling interval:**
- 2 sec – 255 min

**Supply voltage:**
- 5 to 14VDC

**Current drain:**
- Average: 0.16 +48mA/S where S is sampling interval in seconds
- Maximum: 100mA
- Quiescent: 1.5mA

**Operating depth:**
- Shallow Water (SW): 0–300m (0–984.3ft)
- Intermediate Water (IW): 0–3000m (0–9843ft)
- Deep Water (DW): 0–6000m (0–19690ft)

**Electrical connection:**
- 8-pin Subconn MCBH8M

**Dimension (WxHxD):**
- 36 x 39 x 122mm (1.4"x1.5"x4.8")

**Weight:**
- 280g (8.466oz)

**Materials:**
- Epoxy coated titanium

**Accessories not included:**
- Resistor Set 3719 for functional test
- Sensor Cable 5335

\(^1\) Dependant on flow through cell bore
\(^2\) Calibrated range is 0 to 36°C (32-96.8°F)

The above specifications are for the stand-alone sensor only, not the installation it is utilized with.

*Specifications subject to change without prior notice.*