The Temperature Sensor 3444 is designed for water and soil temperature measurements but it is also well suited for measuring temperature in most liquids because of the physical properties of the stainless steel it is made of. It can be installed in tanks or molded into concrete structures for monitoring purposes.

The sensor is intended for use with Aanderaa sensor scanning and reading units.

The sensor consists of a titanium probe with the platinum element and range resistors inside. It is 62mm long with a 6-pin watertight receptacle in one end. The sensor has a flange with an O-ring and nut for chassis mounting and watertight installation in tanks. The mating plug has part number 2828A.

The sensor is based on the ohmic half-bridge principle (VR-22) and employs a 2000Ω film-type platinum resistor as the sensing element. Standard temperature ranges are –7.5 to +41°C, –30 to +60°C and –60 to +30°C. Other ranges are available on request.

Standard sensor cables in different lengths of up to 500 meters are available. For cables longer than 75 meters however, the wire resistance will influence the measurements and must be corrected for (see overleaf).

Cables exceeding 10 meters in length should be shielded or kept as close to the ground as possible to avoid pick-up of atmospheric electricity.
**SPECIFICATIONS FOR TEMPERATURE SENSOR 3444**

- **Measuring Ranges:**
  - Part No. 3444: -7.5 to +41°C
  - " 3444A: -30 to +60°C
  - " 3444B: -60 to +30°C
  - " 3444S: to °C

- **Sensing Element:** Pt 2000
- **Range Resistor:**
  - Part No. 3444: 2120Ω Pt2000 + 0Ω
  - " 3444A: 4020Ω Pt2000 + 1920Ω
  - " 3444B: 3985Ω Pt2000 + 2120Ω
  - " 3444S: Ω Pt2000 + Ω

- **Resolution:** 0.1% of range
- **Accuracy:** ±0.1% of range
- **Sensor Output:** Aanderaa half-bridge (VR-22)
- **Time Constant (63%):** In water: 12 seconds
- **Electrical Connection:** Watertight Plug 2828A
- **Material and Finish:** Titanium and polyurethane
- **Degree of Protection:** IP68
- **Net Weight:** 25 grams
- **Warranty:** Two years against faulty materials and workmanship

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**Circuit Diagram**

Receptacle, exterior view; pin = ⬤; bushing = ○

- Connecting Cable 2842 (a 10 meter cable with Watertight Plugs), is available for connecting this sensor to Aanderaa data-logging systems. Other lengths, or separate plugs and cables, are available on request.
- If connecting cables longer than 75 meters for the 3444 or 150m for the 3444A or B are used, the reading N should be corrected for cable resistance. Add a correction factor for each 10 meters of Cable 2842 as follows: (N-512)x0.00023 for the 3444 sensor and (N-512)x 0.00011 for the 3444A and 3444B sensors.

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