AANDERAA
a xylem brand

Temperature Sensor 4050

Temperature Sensor 4050 is a compact fully integrated sensor for measuring the water temperature. The sensor is designed to be mounted on Aanderaa RCM 9, RCM 11. The sensor can also be used as stand-alone, and is easily integrated in other measurement systems with third party dataloggers.

Temperature Sensor 4050 advantages:

- Smart sensor technology
- Configurable range for improved accuracy when used with Aanderaa current meters
- Depth rating of 6000 meters
- Short response time, less than 2 seconds
- Rugged and Robust with minimal and low maintenance needs
- Resolution: 0.001°C
- Accuracy: ±0.03°C
- Output format: Aanderaa SR10, RS232

The Temperature Sensor 4050 is an intelligent sensor designed to be used on Aanderaa Dataloggers as well as in other measurement systems. The sensor is based on a thermistor-bridge.

A Digital Signal Processor controls the sampling of the bridge and calculates the calibrated temperature in engineering units. The sensor is housed in a rugged titanium cylinder.

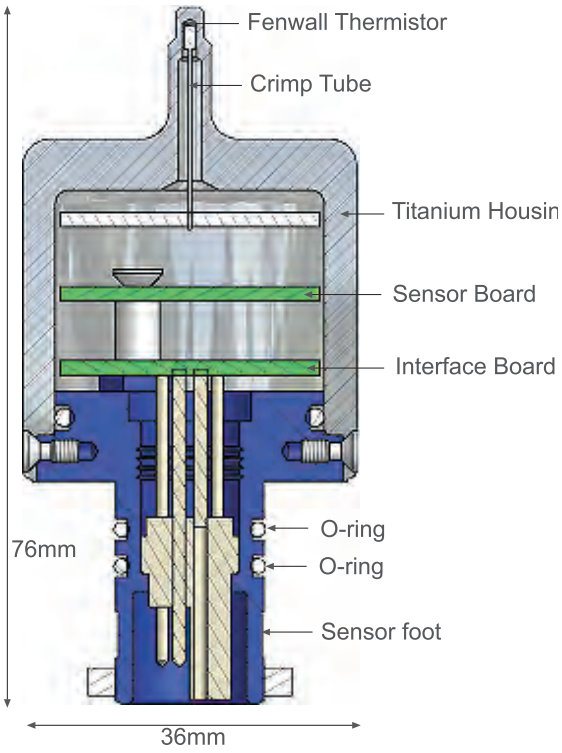
The processed data is available as either RS-232 or Aanderaa SR10 output. The user may configure the measurement range on the SR10 output; best accuracy is achieved with a short measurement range.

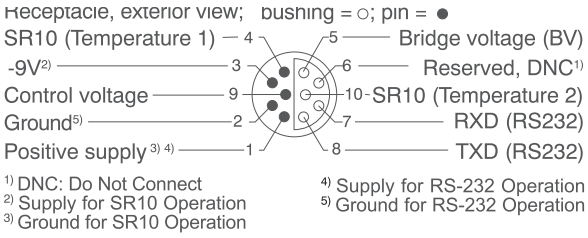
The sensor can be mounted directly on the top end plate of the Aanderaa RCM 9 or RCM 11 and connected to the Main Control Board (Electronic Board) with a short cable, Sensor Cable 3854.

The sensor can also be connected to the Top-end Plate via a cable/string for temperature measurements in a different site than the instrument.

The 10-pin receptacle in the sensor foot mates with Aanderaa CSP (Cylindrical Sealing Plug) giving access to RS-232 output.

For connection to a Personal computer (PC) Sensor Cable 4865 can be used. It is furnished with a watertight 10-pin plug at the sensor end. An additional USB plug is used for providing power to the sensor.





Ordering information:
Remember to select Operating Depth (SW, IW or DW) when ordering Temperature Sensor 4050.

Temperature:	
Range:	-4 to 36°C (24.8 – 96.8°F)(1)
Resolution:	0.001°C (0.0018°F)(2)
Accuracy:	±0.03°C (0.054°F)
Response Time (63%):	<2 sec
Output format:	Aanderaa SR10,ASCII RS-232(3)
Sampling Interval:	2 sec – 255 min (SR10 Controlled by Datalogger)
Supply voltage:	6 to 14Vdc (SR10 -6 to -14Vdc)
Current drain(@ 9V):	
Average:	RS-232:14mA/S +0.25mA where S is sampling interval in seconds SR10: 3 mA/T where T is recording interval in minutes
Maximum:	50 mA
Quiescent:	0.25 mA (SR10, 0mA)
Operating temp.:	-5 to +40°C (23 – 104°F)
Electrical connection:	10-pin receptacle mating CSP (Cylindrical Sealing Plug)
Dimensions (DxH):	O.D.36 x 76mm (O.D1.4"x3")
Weight:	120g (4.23oz)
Materials:	Titanium and Epoxy coating
Accessories:	
included:	Sensor Cable 3854
not included:	RS-232 CSP free end cable 4762 RS-232 CSP to PC cable 4865 Real-time Collector 4715 and license

(1) Extended range available on request. The range on the SR10 output is user-configurable
(2) for SR10, 0.1% of configured range or 0.01°C (0.018°F), whichever is greater
(3) 9600 baud, 8 data bits, 1 stop bit, No parity, Xon/Xoff Handshake

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

Specifications subject to change without prior notice.

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Let's Solve Water

Visit our Web site for the latest version of this document and more information
www.aanderaa.no

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