AANDERAA
a xylem brand

Turbidity Sensor 4705

fits directly onto the Top-end Plate of the RDCP. Turbidity sensor 4705 consists of Turbidity sensor 4640 and Analog converter 4649.

Advantages:
- Optically confined sensing volume
- Insensitive to ambient light
- Linear output over more than 5 decades
- 4 Selectable ranges
- Optic feedback compensated for temperature drift and aging of optical components
- Very low offset voltage does not require adjustment
- Very low power requirements

Application Areas:
- Pollution monitoring
- Water and wastewater quality
- Sediment transport
- Ocean profiling
- River and stream monitoring

The Turbidity sensor 4640 is based on the seapoint turbidity meter. The sensor detects light scattered by particles suspended in water.

This measurement is known to have a good correlation to the amount of suspended matter in water and can be used to monitor e.g. sediment, algae or particle pollution. The sensor generates an output voltage proportional to the turbidity or suspended solids.

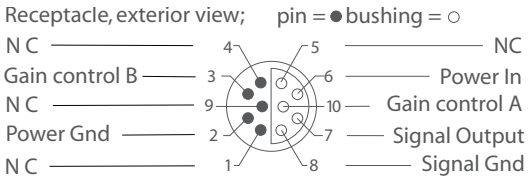
The low power consumption makes it ideal for applications where battery drain is a concern.

The sensor offset voltage is within 1mV of zero and requires no adjustment across gains.

The unique optical design confines the sensing volume to within 5cm of the sensor allowing near-bottom measurements and minimizing errant reflections in restricted spaces.

The turbidity sensor can be mounted directly on the Top-end Plate of the Aanderaa RDCP; the sensor output signal is raw data readings. The output signal from the Analog converter is in SR-10 format.

Specifications 4705



Analog converter 4649

Operating range:

Range: (FTU)	Sensitivity: (mV/FTU)	Gain:
0 - 25	200	100x
0 - 125	40	20x
0 - 500	10	5x
0 - 2500*	2	1x

(* the sensor output is non-linear above 750 FTU)

Operating temperature: 0°C to 65°C (32°F to 149°F)
Output signal: 0-5.0Vdc
Output time constant: 0.1sec
Power requirements: 7-20Vdc
Average: 3.5mA
Peak: 6mA
RMS Noise: < 1mV
Power-up transient period: < 1sec
Light source wavelength: 880nm
Sensing distance: < 5cm (approx.) from windows
Linearity[1]: < 2 % deviation 0-750FTU
Temperature coefficients: < 0.05% per deg. Celcius
Depth capability: 300m (984ft)
Weight (in air): 86g (3.0oz)
Materials: ABS plastic, Epoxy, Stainless steel 316
Electrical connection: 10-pin receptacle mating plug

[1] The sensor is delivered adjusted for linearity in the range 0-750 FTU. To obtain an absolute calibration, referred to a laboratory reference instrument, please order calibration for the selected range.

Specifications subject to change without prior notice

Note:
Analog converter 4649 is installed inside the RDCP.

Refer system drawing S-6891 for electrical connections and sensor range selection.

Calibration Coefficients: **Date:** **Sign:**

For Analog converter 4649, serial no.....

A		C	0
B		D	0

For Turbidity sensor 4705, serial no.....

Range	A	B	C	D	Unit
0 - 25			0	0	
0 - 125			0	0	
0 - 500			0	0	
			0	0	

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Let's Solve Water

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