

Turbidity Sensor 4296



Turbidity Sensor 4296 is a compact fully integrated sensor for measuring optical backscatter in water. It is designed to be used with SeaGuard or SmartGuard data logger using AiCaP CANbus or as stand-alone sensor using RS-232

Advantages:

- Smart Sensor for easy integration with SeaGuard and SmartGuard
- Direct read out of engineering data, multipoint factory calibrated
- Enter site specific reference data to receive absolute values in mg/l
- Low power consumption
- Rugged and robust with low maintenance needs
- Output format AiCaP CANbus, RS-232
- 3 depth ranges available, 300, 3000 and 6000 meters

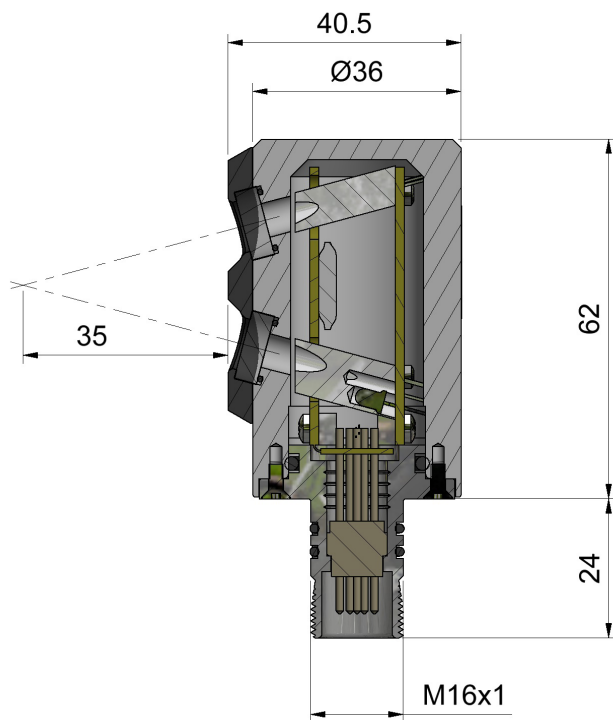
Turbidity is the optical property of the water that causes light to be scattered by suspended particles. High particle concentration causes high turbidity. By establishing the relationship between turbidity and the local suspended matter this measurement can be used for assessing the concentration of suspended matter.

The Turbidity Sensor 4296 measures the backscatter of infrared light. A high efficiency light emitting diode is used to transmit modulated light into the water. The backscattered light is picked up by a sensitive photodiode and this signal is then conditioned, linearized and converted to data in engineering unit (FTU). In addition to turbidity, the sensor also measures water temperature.

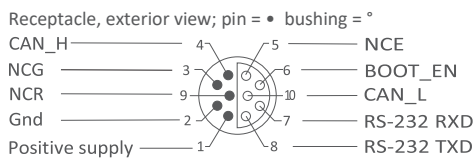
AANDERAA

a **xylem** brand

Specifications TURBIDITY SENSOR 4296



PIN CONFIGURATION 4296, 4296A, 4296B, 4296C



Possible Applications:

Coastal & Deep water, Monitoring/Research, Aquaculture, Sediment transport, Natural & manmade re-suspension, Dredging/trawling, River input, Coastal erosion, Off-shore gas/oil & Mining, Seismic events, Nepheloid layers/turbidity currents, Slope stability, Reference for acoustic backscatter.

Technical Details

Turbidity:

Range:	0 - 25 FTU
4296	0 - 125 FTU
4296A	0 - 500 FTU
4296B	0 - 2500 FTU
Resolution:	0.1% of reading or 0.025 FTU
Accuracy:	±3% of range. Multipoint calibrated for each range
Wavelength:	880 nm
Scattering angle:	150°
Aperture:	15°

Temperature:

Range:	-5-40°C (23-104°F) ¹⁾
Resolution:	0.001°C (0.018°F)
Accuracy:	±0.15°C (0.27°F)
Response Time (63%):	<8 seconds

Output format:

4296, 4296A, 4296B, 4296C	AiCaP CANbus and RS-232
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Output Parameters:

	Turbidity, Temperature, Raw data
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Sampling interval:

	2 sec - 255 min
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Supply voltage:

	5 to 14VDC
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Current drain:

Average:	0.22 +40mA/S where S is sampling interval in seconds
Maximum:	100mA
Quiescent:	0.22mA

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:

	10-pin receptacle mating SP-plug
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Dimension (WxDxH):

	36 x 40.5 x 86mm (1.4"x1.6"x3.4")
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Weight:

	185g (6.53 oz)
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Materials:

	Epoxy coated Titanium, Sapphire glass window (non scratchable), POM
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Accessories, not included:

	Sensor Cable 4762,4865
	Patch Cable 4999,3880L
	Set-up and Config. Cable 3855

⁽¹⁾ 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.