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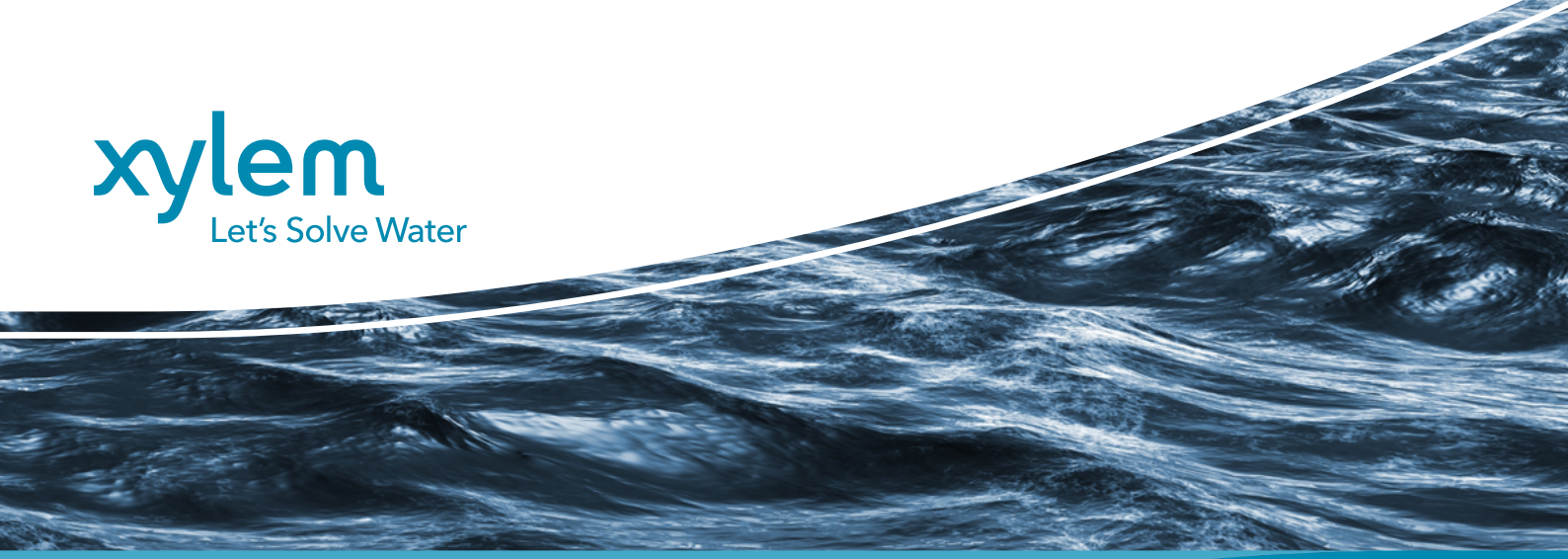
Let's Solve Water



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.

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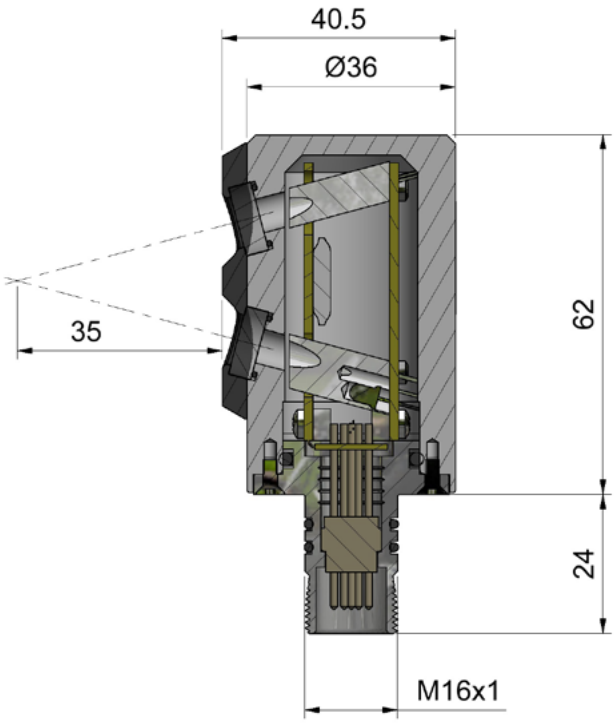
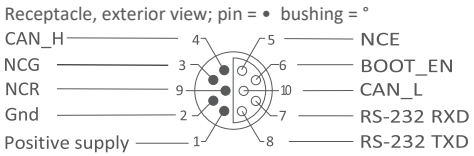
Specifications TURBIDITY SENSOR 4296



Technical Details

Turbidity:	
Range:	
4296	0 – 25 FTU
4296A	0 – 125 FTU
4296B	0 – 500 FTU
4296C	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
Output Parameters:	Turbidity, Temperature, Raw data
Sampling interval:	2 sec – 255 min
Supply voltage:	5 to 14VDC
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
Dimension (WxDxH):	36 x 40.5 x 86mm (1.4"x1.6"x3.4")
Weight:	185g (6.53 oz)
Materials:	Epoxy coated Titanium, Saphire glass window (non scratchable), POM
Accessories, not included:	Sensor Cable 4762,4865 Patch Cable 4999,3880L Set-up and Config. Cable 3855

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.

[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.

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