



Hyperion Turbidity

Optical Turbidity sensor

The new Valeport Hyperion-T is essentially 2 sensors in one. The first is a "classic" turbidity sensor, a nephelometer that uses a 90° beam angle, for low turbidity levels (0 to 1,000 NTU). The second, for high turbidity levels (1,000 to 6,000 NTU) uses an Optical Backscatter (OBS) arrangement (~120° beam angle). Intelligent sampling and use of a 24 bit ADC eliminates the need to gain switch at higher turbidity levels. The optical head is very compact – measuring just 20mm in diameter and with a full ocean depth rating lends itself to OEM type solutions.

A compact & robust package ideal as a standalone sensor, for ROV and AUV integration or used as part of a multi-sensor array and data logger system.

Offered as standard in a 6,000m depth rated, titanium housing the Hyperion Turbidity Instrument has a wide range (9-30V DC) isolated power supply, data output up-to 16Hz on RS232 and RS485 or Modbus.

DATA SHEET

Product Details



OPTICAL



DATALOG
X2 SOFTWARE

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Sensor Specification

Turbidity

Dynamic Range Nephelometer: 0 to >1,000 NTU - linear response
OBS: 0 to >6,000 NTU - linear response
>6,000 NTU has a non-linear monotonic response that allows derivation of higher values using look-up tables

Linearity 0.99 R²

Minimum Detection Level 0.03 NTU
(Nephelometer)

Communications

The instrument will operate in real time, with setup performed by direct communications with PC before and after deployment.

RS232 Up to 200m cable
Direct to serial port via USB adapter

Baud Rate 2400-115200

Protocol 8 data bits, 1 stop bit. No parity. No flow control

Electrical

External 9-30V DC Isolated

Power <600mW

Connector SubConn MCBH6F

Physical dimensions

Materials Housing: Titanium
Optical window: Sapphire glass

Depth rating 6,000m

Dimensions Ø40mm x Length 179.5mm (including connector)

Weight 0.5kg (in air) / 0.26kg (in water)

Operating Temp -5°C - 35°C
(the sensor is damaged above 60°C)

Software

- Valeport Datalog X2 software for instrument setup

Ordering

0901002-T Hyperion Turbidity

- Supplied with:
- Hyperion Instrument
 - 0.5m pig tail
 - Manual and Transit Case
 - DataLog X2 Software

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