

Mini-FT7

Miniature Fast Temperature Profiler

The Hydromea Mini-FT7 fast temperature profiler is a highly integrated, compact temperature sensor with built-in analog to digital converter and data logger, based on the well-known FP07 thermistor. Additionally, a built-in 9-axis IMU measures 3D orientation and vibrations.

Its small size makes it ideal for integration into small AUVs and gliders, as well as multi-parameter probes.

The proprietary advanced signal conditioning and analog-to-digital conversion provides excellent linearity at a very high resolution.

Measurements can be recorded internally at the full sampling rate of 400 Hz, and simultaneously transmitted through the external data connector. The external RS232 interface provides the data at full sampling rate, or at a reduced, user-definable rate for monitoring or OEM integration.

Features

- Ultra-compact
- Very low weight, ideal for small gliders/ AUVs
- Direct high-resolution signal conversion for excellent linearity
- Internal conversion and logging
- Built-in 9-axis IMU for 3D orientation

Optional customisations

- Built-in pressure sensor
- Battery powered for stand-alone operation

Applications

- Microstructure and turbulence measurements
- Fast high-resolution temperature profiling
- Erosion studies
- AUV-based profiling
- OEM integration with multi-parameter probes



Specifications*

Dimensions	ø 25 mm x 200 mm
Weight in air	160 g
Weight in water	100 g
Temperature range	-5° - 45°C
Resolution (eff. RMS)	20 µ°C
Sampling rate	400 Hz
Supply voltage	6 - 36 V
Orientation sensors	3D orientation, accelerometer, gyro, compass
Data logging	internal, 32 GB
Interface	RS232
Depth rating	1000 m
Housing material	Titanium

* Preliminary specifications - may change without notice