Datasheet

Fetch – Wireless Autonomous Sensor Logging Node

Fetch is a long-life subsea sensor logging node that enables data to be wirelessly extracted via its integrated high speed acoustic modem. It can be free-fall deployed to the seabed and will land in an upright position. This reduces deployment time and cost.

Fetch can be configured with an array of different sensors dependent on the monitoring application. Standard sensors include high accuracy pressure, temperature and sound velocity as well as inclination. Other sensors can be integrated internally or externally as required.

The sampling regime can be configured serially before deployment and via the acoustic modem which is also used to recover the data to the surface.

The 9,000 bps modem transfer rate enables data to be extracted in minimal vessel time reducing operational costs.

The ultra-low power platform powers up sensors only when required and logs and timestamps the data to an internal SD memory card.

High capacity primary lithium battery packs enable deployments of many years, dependent on sensor selection and sampling rate.

Fetch is compatible with Sonardyne's Ultra-Short BaseLine (USBL) positioning systems for positioning during deployment/recovery.

When the mission is complete, Fetch can be acoustically commanded to release from its stand and return to the surface under its own buoyancy ready for collection.

Key Features

- Autonomous sensor logging capability with acoustic telemetry of data
- Low data recovery costs
- Long-life - Up to 10 years with excellent corrosion resistance
- Integrated modem with data rates ranging from 100 to 9,000 bps in multiple frequency bands
- Easy to set-up with configuration and sampling period programmable via telemetry link
- Sonardyne Wideband®1, Wideband 2, Wideband 2+ and HPR 400 USBL mode compatible
- Integrated acoustic release
- Low cost free fall deployment

Specifications

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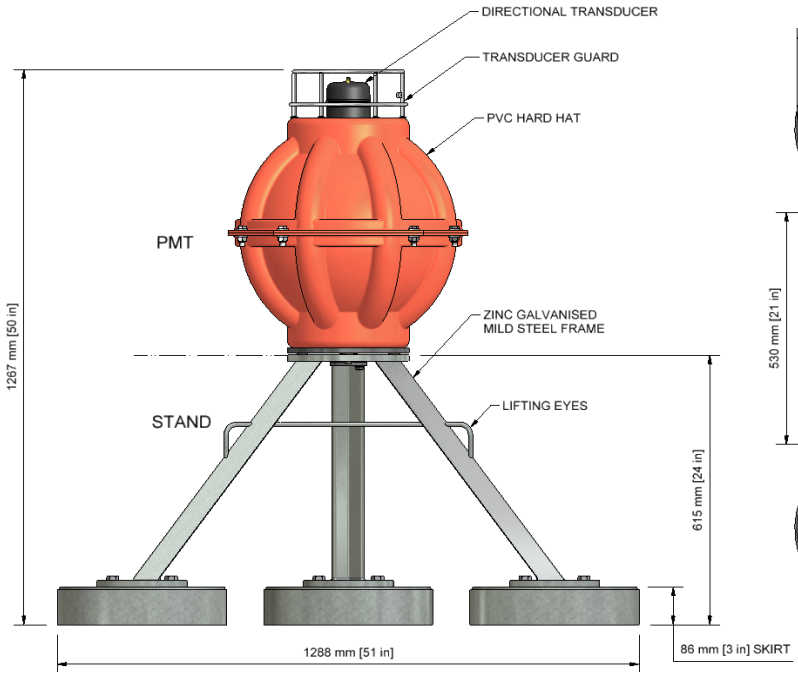

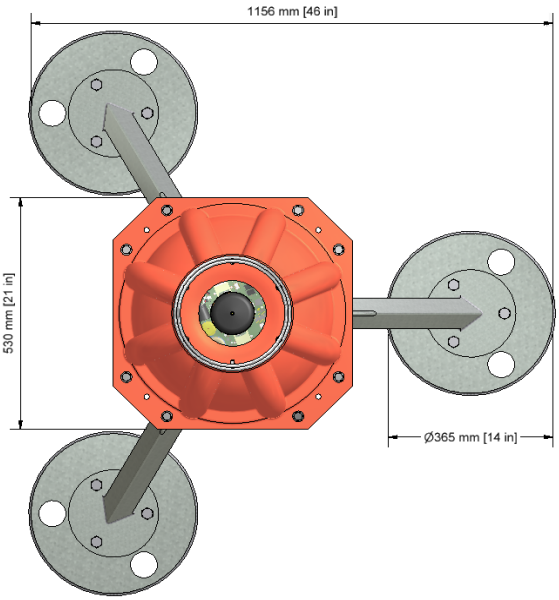

Feature		Type 8306-3873
Depth Rating		3,000 or 6,000 m
Operating Frequency		MF (19–34 kHz)
Transducer Beam Shape		Directional
Transmit Source Level (dB re 1 µPa @ 1 m)		190-202 dB (4 levels)
Receive Sensitivity (dB re 1 µPa)		90-120 dB (7 levels)
Battery Life (Capacity)		5 years typical (10 years option) (dependent on sensors and sampling interval (180 Ah))
Mechanical Construction		Glass sphere, galvanised stand and duplex stainless steel guards and connectors
Operating Temperature		-5 to +35°C
Storage Temperature	With Batteries	0 to +30°C
	Without Batteries	-5 to +35°C
Weight in Air/Water[1]	Fetch	40/10 kg (upthrust buoyancy)
	Stand	60/52 kg
Sensors and Options		
Temperature (±0.1°C)		Optional
Tilt Switch (±30–45°)		Standard
Paroscientific DigiQuartz Pressure Sensor (±0.01%) 1,350 m, 2,000 m, 4,130 m, 6,800 m		Optional
Strain Gauge Pressure Sensor (±0.1%)		Standard
High Precision Strain Gauge (±0.01%) Keller or Presens		Optional
Sound Velocity Sensor ±0.02 m/s Accuracy Under Calibration Conditions		Optional
High Accuracy Inclinometer Range: ±90°, Accuracy: ±0.05° over 0 - ±15°; ±0.2° over 0 - ±45°		Optional
Release Mechanism (Screw-off)		Standard
Connector Type		Impulse MCIL-8-MP

See Compatt 6 and AMT datasheets for more information.

[1] Estimated Weights.