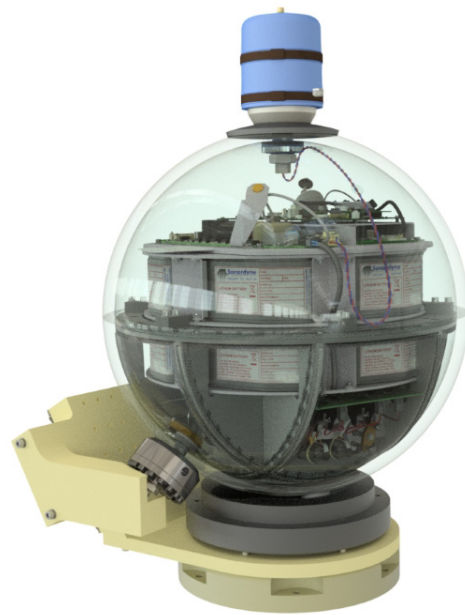


Datasheet

Fetch AZA – Self-Calibrating Bottom Pressure Recorder



Description

Fetch Ambient-Zero-Ambient (AZA) is a long-life subsea sensor logging node that enables data to be wirelessly extracted via its integrated high speed acoustic modem.

The AZA option permits a high quality pressure sensor to be automatically recalibrated in situ, by periodically taking it to one atmosphere and measuring the sensor bias against a low pressure sensor of similar quality. In essence, the ± 0.2 mbar accuracy of the low pressure sensor is transferred to the high pressure sensors. Potentially, barring any other errors, the post-processed data may be up to 150 times better accuracy, for the duration of the deployment.

Other supported sensors include high precision temperature and sound velocity as well as inclination.

The 9000 bits per second modem transfer rate enables logged 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.

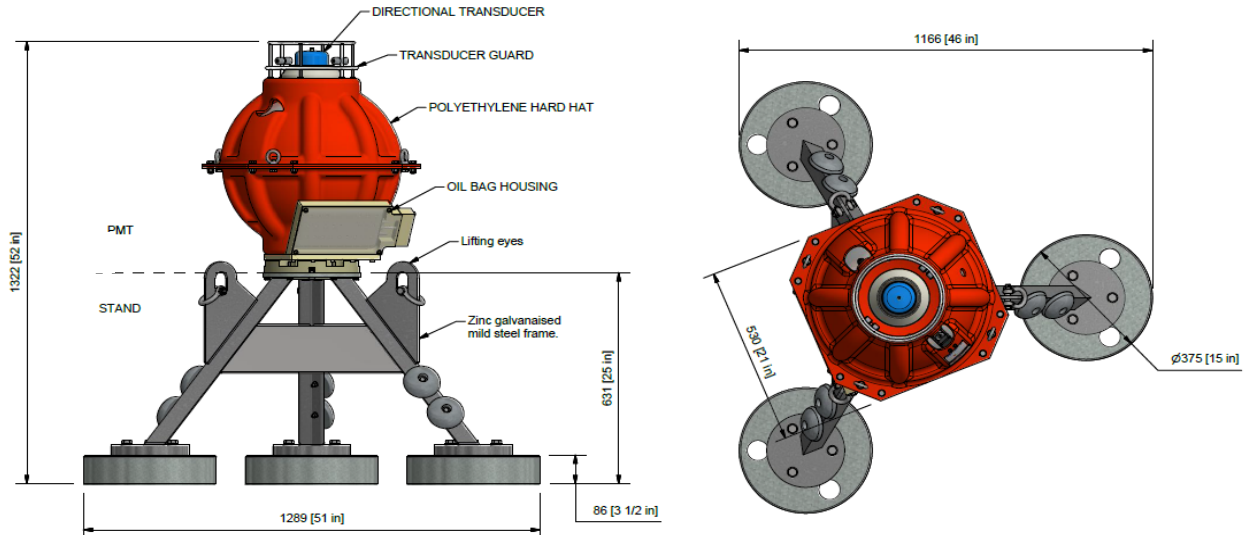
Fetch is compatible with Sonardyne's Ultra-Short BaseLine (USBL) positioning systems for positioning during deployment/recovery.

Key Features

- Pressure data with drift-elimination
- Autonomous sensor logging with acoustic telemetry of data
- Low data recovery costs
- 3000/6000 metre depth options
- Ultra-long life – 10+ years with excellent corrosion resistance
- Integrated modem with data rates ranging from 100 to 9000 bits per second in multiple frequency bands
- Easy to set-up with configuration and sampling period programmable via telemetry link
- Sonardyne Wideband® 1,2 and 2+ plus HPR400 USBL mode compatible
- Battery disconnect fob to disconnect battery for transport and storage

Specifications

Fetch AZA – Self-Calibrating Bottom Pressure Recorder



Feature	Type 8306	Type 8306
Depth Rating	3,000 metres	6,000 metres
Operating Frequency	MF	MF/LMF
Transducer Beam Shape	Directional/omni-directional	Directional
Acoustic Transmit Source Level (dB re 1µPa)	190–202/187–196	190–202
Acoustic Sensitivity (dB re 1µPa)	<85	<85
Communications	Acoustic modem & Bluetooth wireless	
Battery Life (Lithium)	10 years typical, (504 Ahr) dependent on sensors and sampling interval	
Mechanical Construction	Glass sphere, duplex s/steel guard, PVC shell, titanium ports	
Mass without Stand	62 kg	
Weight in Water without Stand	25 N (negative buoyancy)	
Mass with Stand	145 kg	
Weight in Water with Stand	830 N	
Operating temperature range	-5 to +35°C	
Storage temperature range (with batteries)	0 to +30°C	
Storage temperature range (without batteries)	-5 to +35°C	
Options		
High precision Temperature Sensor ($\pm 0.015^\circ\text{C}$)	Standard	
MEMS Inclinometer ($\pm 1^\circ$)	Standard	
AZA in-situ Self-Calibration Mechanism	Standard	
Transfer Pressure Sensor: Quartz, ($\pm 0.01\%$)	Standard	
Transfer Pressure Sensor: 2nd Quartz	Option	
Ambient Pressure Sensor: Strain Gauge, ($\pm 0.01\%$)	Standard	
Ambient Pressure Sensor: Strain Gauge, ($\pm 0.19\%$)	Option	
Low-Range Pressure Sensor: Strain Gauge, 2 bar, ($\pm 0.01\%$)	Standard	
Battery Disconnect Fob	Standard	
Sound Velocity Sensor ± 0.02 m/s accuracy under calibration conditions	Option	
High Precision Inclinometer ($\pm 0.05^\circ$)	Option	
Acoustic Baseline Range Measurement*	Option	
Release Mechanism (Screw-off)	Option	
Stand/Mud Feet	Option	

* Available for omni-directional transducer beam shapes only.