



**837A-000-403-S Delta T**

445-085 MARCH 2013-REVISED MAY 2017

## **IMAGENEX MODEL 837A “Delta T” 3000 m OBSTACLE AVOIDANCE FIXED TRANSDUCER MULTIBEAM SONAR**

### **APPLICATIONS:**

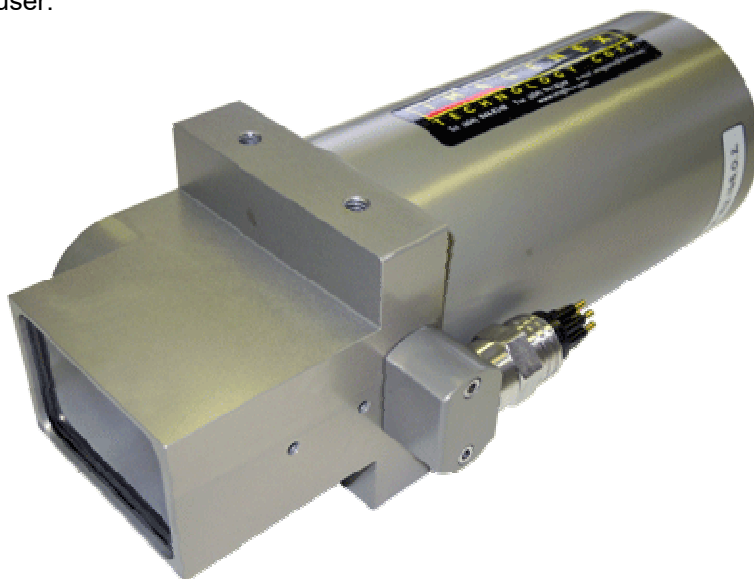
- ROV, AUV, & UUV
- Offshore Oil & Gas
- Sunken Timber Recovery
- Diving Support
- Surveying
- Search & Recovery
- Inspection
- Underwater Archaeology
- Scientific Research
- Harbour Surveillance

### **FEATURES:**

- Fixed transducer
- Programmable
- High speed
- High performance
- Lower cost
- Low power
- Simple set-up and installation
- Ethernet
- 5 m to 150 m range scales
- Integrated Video Capture and Display
- Built in GPS Track Plotter

The Imagenex Model 837A “Delta T” is a multiple receiver sonar system designed to provide high-speed imaging with all the advantages of underwater sonar. Innovative digital signal processing is used to optimize data usage from all channels to achieve the best possible resolution at every point in the field of view. Recent advances in computing power have made it possible to transfer and process this data at resolutions equal to computer monitor resolution, and with image frame rates of better than 20 frames per second!

The Delta T system has been designed from the ground up with the most advanced, high accuracy, low power electronic components available to provide breakthroughs in system power consumption, package size, and price. This advanced electronics package has built in flexibility and programmability to accommodate a wide range of transducer arrays. Thus, the Delta T is the first in a family of new technology products which will have imaging and profiling capabilities to suit your underwater application. Imagenex sonars: advancing underwater imaging capability for the everyday user.

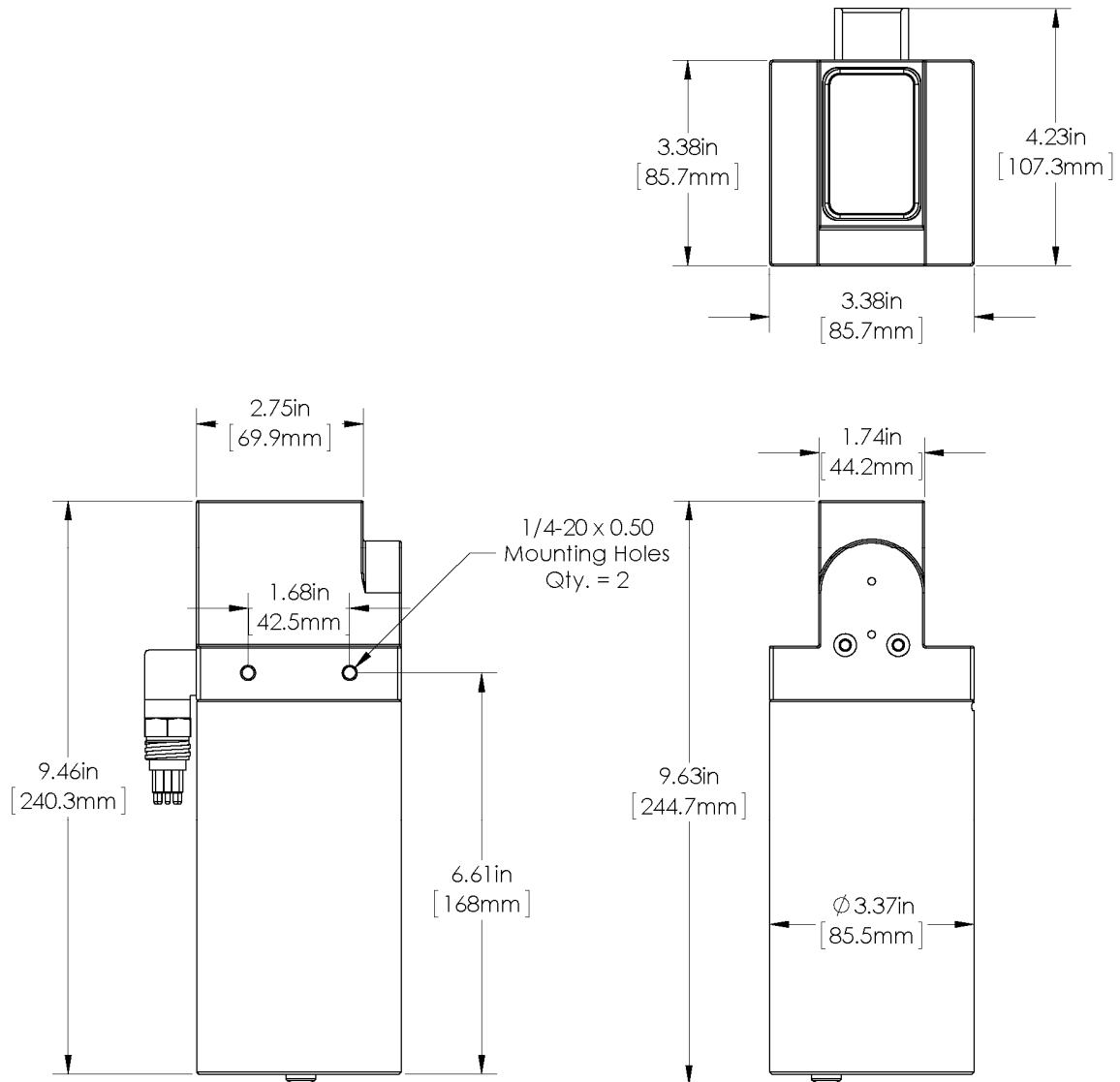


Patent Pending

| <b>HARDWARE SPECIFICATIONS:</b>        |                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FREQUENCY</b>                       | 260 kHz                                                                                                                                  |
| <b>TRANSDUCER BEAM WIDTH (nominal)</b> | Receive: 120° x 10°<br>Transmit: 120° x 10°                                                                                              |
| <b>EFFECTIVE HORIZONTAL BEAM WIDTH</b> | 3°, 1.5°, 0.75°                                                                                                                          |
| <b>BEAMS*</b>                          | 120, 240, 480                                                                                                                            |
| <b>RANGE RESOLUTION:</b>               |                                                                                                                                          |
| <b>SCREEN</b>                          | 0.2% of range                                                                                                                            |
| <b>OUTPUT</b>                          | 0.02% of range                                                                                                                           |
| <b>MIN. DETECTABLE RANGE</b>           | 0.5 m                                                                                                                                    |
| <b>MAX. OPERATING DEPTH</b>            | 3000 m                                                                                                                                   |
| <b>FRAME RATE</b>                      | Up to 20 fps                                                                                                                             |
| <b>INTERFACE TO PC</b>                 | Standard: 10 Mbps Ethernet (10 BASE-T) using TCP/IP<br>Bit rate may vary if an Ethernet extender is in use.                              |
| <b>MAX. CABLE LENGTH</b>               | Standard: 100 m on CAT5e<br>Cable length may be increased up to ~9000 m using an Ethernet extender. Please enquire for more information. |
| <b>CONNECTOR</b>                       | Side mounted right angle, 8 conductor, wet mateable (Subconn MCBH-8M-SS)                                                                 |
| <b>POWER SUPPLY</b>                    | 22 – 36 VDC at less than 5 Watts                                                                                                         |
| <b>DIMENSIONS</b>                      | See drawing                                                                                                                              |
| <b>WEIGHT: In Air</b>                  | ~2.2 kg (~5 lbs)                                                                                                                         |
| <b>In Water</b>                        | TBA                                                                                                                                      |
| <b>MATERIALS</b>                       | 6061-T6 Aluminum, Epoxy, PVC, Stainless Steel connector                                                                                  |
| <b>FINISH</b>                          | Hard Anodize                                                                                                                             |

\*Data is acquired at full resolution every shot: processing the data for screen display on a PC can slow the system at highest number of beams. 120 beam mode is recommended for real time data acquisition. The data can then be played back at highest resolution (480 beam).

| <b>SOFTWARE SPECIFICATIONS:</b>                   | <b>DeltaT.exe</b>                                                                |
|---------------------------------------------------|----------------------------------------------------------------------------------|
| <b>WINDOWS™ OPERATING SYSTEM</b>                  | Windows™ XP, Vista, 7, 8, 10                                                     |
| <b>DISPLAY MODES</b>                              | Sector, Linear, Perspective, Profile, Beam Test                                  |
| <b>PERSISTENCE (TRAIL)</b>                        | 1 – 300 seconds                                                                  |
| <b>RANGE SCALES</b>                               | 5 m, 10 m, 20 m, 30 m, 40 m, 50 m, 60 m, 80 m, 100 m, 150 m                      |
| <b>SECTOR SIZES</b>                               | 30°, 60°, 90°, 120°                                                              |
| <b>FILE FORMAT:</b>                               | (filename).837                                                                   |
| <b>RECOMMENDED MINIMUM COMPUTER REQUIREMENTS:</b> | 2 GHz Pentium 4<br>256 MB RAM<br>20 GB Hard Disk<br>1024 x 768 screen resolution |



| ORDERING INFORMATION:   |          |                |
|-------------------------|----------|----------------|
| 3000 m UNIT in Aluminum | Standard | 837A-000-403-S |
| Straight Connector      | Option   | -009           |
| IP Address*             | Option   | -020           |
| External Trigger        | Option   | -023           |

\*Note: Standard IP Address is 192.168.0.2  
A different IP Address may be specified upon ordering.

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