

Tritech Micron EchoSounder

**Ultra Compact
Altimeter**

Sensor Interface Manual



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Overview

The Tritech Micron EchoSounder DST (Digital Sonar Technology) is a compact professional altimeter that can be used in freshwater, brackish, or saltwater applications.

The instrument functions using CHIRP technology as either a digital RS-232 or RS-485 device, or as an analog sensor with 0-5 V output.

With readings that are resolved down to the millimeter and a depth rating of up to 750 meters, the instrument is ideal for sea floor or bridge scour monitoring applications when used with NexSens iSIC or SDL data loggers.



Figure 1: Tritech micron echosounder DST

Installation

The sonar includes four M3 x 0.5 mm holes located on its bottom surface that can be used for mounting the instrument on flat surfaces.

Alternatively, the Micron EchoSounder DST can be hose-clamped at the bottom of its 50 mm housing as necessary to provide a secure mounting.

Connecting to iSIC Data Logger

To wire the sensor into the iSIC, route the cable and wires through a gland fitting installed in the enclosure, and then unplug the green terminal strip from the data logger before securing individual wires according to the wiring diagram below. Avoid clamping on wire insulation.



Figure 2: Unplug the green terminal strip from the data logger before wiring the sensor

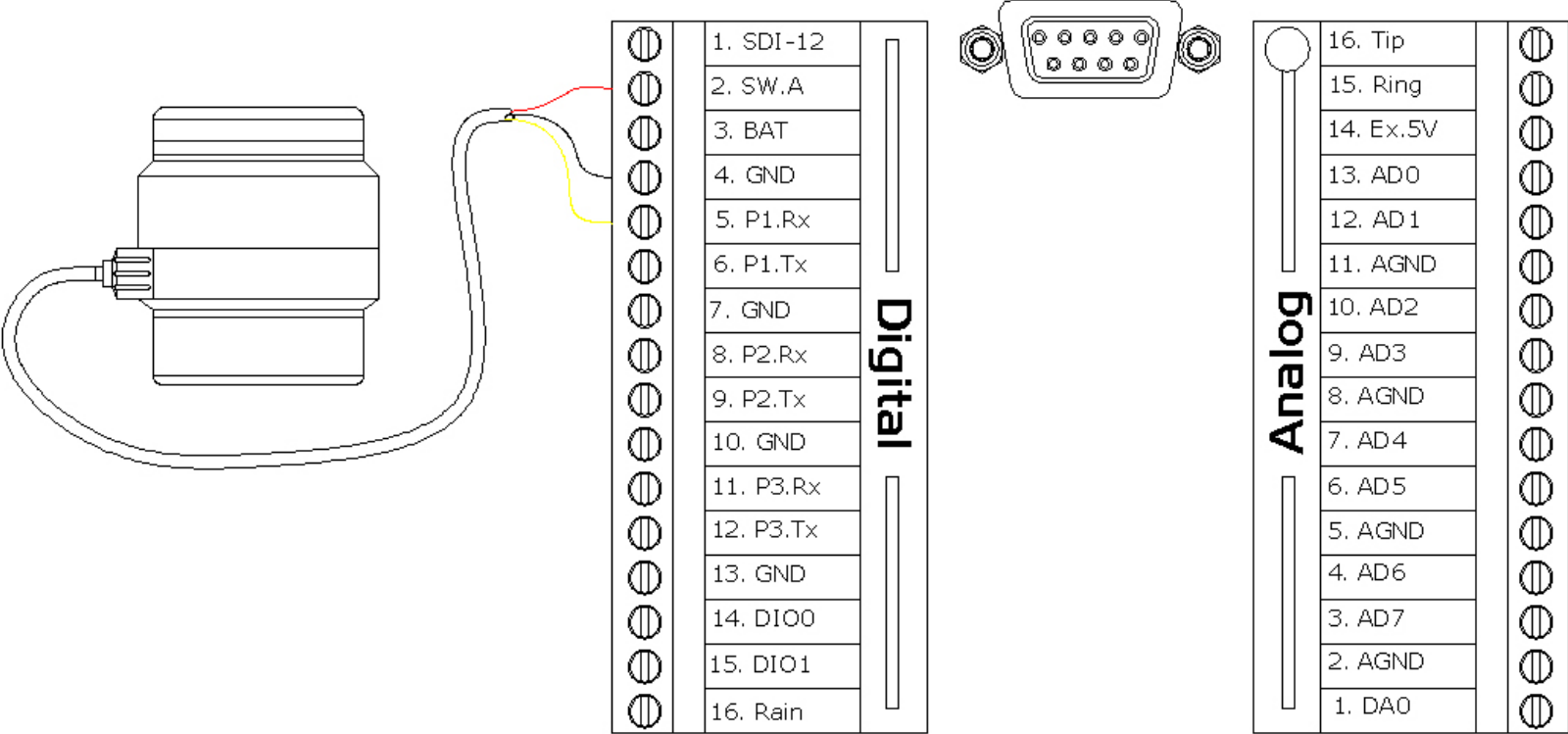


Figure 3: Physical wiring of a Tritech micron echosounder DST to an iSIC data logger

Table 1: Table for wiring an Tritech micron echosounder DST to an iSIC data logger

Digital		Analog	
1. SDI-12	-	16. Tip	-
2. SW.A	Red (Power)	15. Ring	-
3. BAT	-	14. Ex.5V	-
4. GND	Black (GND)	13. AD0	-
5. P1.Rx	Yellow (RS-232 Tx)	12. AD1	-
6. P1.Tx	-	11. AGND	-
7. GND	-	10. AD2	-
8. P2.Rx	-	9. AD3	-
9. P2.Tx	-	8. AGND	-
10. GND	-	7. AD4	-
11. P3.Rx	-	6. AD5	-
12. P3.Tx	-	5. AGND	-
13. GND	-	4. AD6	-
14. DIO0	-	3. AD7	-
15. DIO1	-	2. AGND	-
16. Rain	-	1. DA0	-

Notes:

- The echosounder DST should be wired with switch power because it draws a significant amount of current while running idle.
- P2.Rx must be used in place of P1.Rx when wiring two sensors to the iSIC terminal strip.

Computer Interface

iChart software is used to set up the iSIC data logger, as well as to acquire and process data. Launch the software and select **File | New Project**. Follow the Setup Device Wizard to create a project file. Additional information is available in the iChart manual.



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