

# Altimeter MKII

## Digital Precision Altimeters



### Applications

- ROV and AUV altitude
- Under ice measurement
- Integration with bathymetric and oceanographic sensors
- Touchdown monitoring of subsea structures
- Wave height measurement

The latest Digital Precision Altimeter offers reliable performance and accurate distance measurement in harsh subsea environments.

### Benefits

- Reliable and precise distance measurement
- Millimetre accuracy
- Fully software configurable
- Compact and low weight
- Range of connector options and housing materials
- Fully backwards compatible with previous model

### Features

- 200 kHz and 500 kHz options available
- Software configurable digital and analogue output
- Built-in inclinometer with slant-range correction
- Wide input voltage range
- 700 m, 4000 m, 6800 m depth ratings
- Straight and Right Angle transducer configurations

Tritech's latest Precision Altimeter offers a host of additional features along with the existing range of available connector and output options. Utilising our proprietary signal processing engine to provide millimetre accuracy, the devices now feature an inclinometer that can compensate for real time pitch and roll on altitude measurements.

Software configurable digital and analogue outputs allow the device to be integrated to a wide range of interfaces (including seamless operation within Tritech Genesis, Seanet or AltTest software). Compatibility with PC, data-loggers, multiplexers and industrial 4-20 mA interfaces are included as standard. The new instrument is fully backwards compatible with the previous PA sensor range.

Making use of Tritech's proprietary signal processing engine, the instrument actively filters acoustic noise generated by other subsea equipment to offer accurate and reliable target detection in the harshest of environments.

| Key Specification   |                                           |
|---------------------|-------------------------------------------|
| Operating frequency | 200 kHz or 500 kHz                        |
| Beamwidth           | 20° & 6° conical                          |
| Depth rating        | 700 m - 6800 m / 2296.59 ft - 22,309.7 ft |
| Weight in water     | 0.8 kg / 1.77 lbs                         |

| Acoustic specification | PA200         |              | PA500         |               |
|------------------------|---------------|--------------|---------------|---------------|
| Operating frequency    | 200 kHz       |              | 500 kHz       |               |
| Beamwidth              | 20° conical   |              | 6° conical    |               |
| Range                  | 0.7 m to 50 m | 1 m to 100 m | 0.3 m to 50 m | 0.1 m to 10 m |

#### Resolution and Accuracy

|                      |                                                               |
|----------------------|---------------------------------------------------------------|
| Measurement Accuracy | 1 mm                                                          |
| Inclination Accuracy | ± 0.5°                                                        |
| Digital Resolution   | 1 mm                                                          |
| Analogue Resolution  | 0.001% of range (0 to 10 Vdc) or 0.003% of range (0 to 5 Vdc) |

#### Electrical and communications

|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Supply voltage                   | 9 to 50 Vdc                                                           |
| Power Requirements* <sup>1</sup> | <2 W                                                                  |
| Digital Output                   | RS-232 or RS-485 (4800 to 115200 Baud)                                |
| Analogue Output                  | - 0 to 5 Vdc<br>- 0 to 10 Vdc<br>- 4 to 20 mA Current Loop (Optional) |
| Output Modes                     | Free-running, Interrogate, Multidrop Network, MK3 Comms, TTL Trigger  |

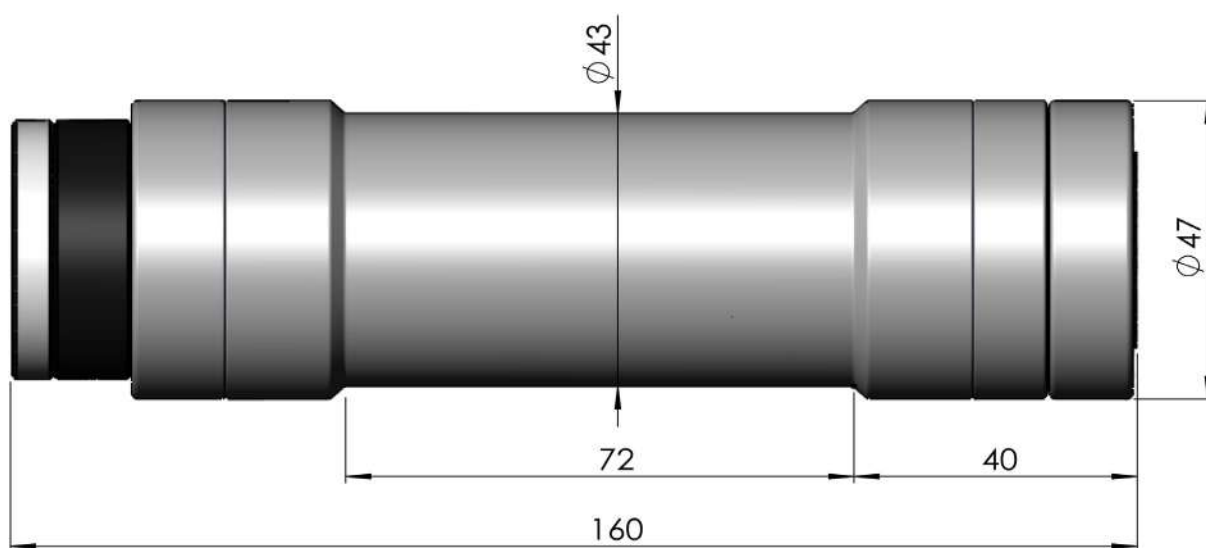
#### Physical specification

|                                                           |                                                                                              |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Depth rating                                              | 700 m / 4000 m / 6800 m<br>2296.59 ft / 13,123.36 ft / 22,309.7 ft                           |
| Material choice* <sup>2</sup>                             | Acetal, Anodised Aluminium, Stainless Steel, Titanium<br>All right-angle transducers are ABS |
| Weight (Air / Water)<br>(Stainless Steel Forward Looking) | 1.15 kg (2.54 lbs) / 0.8 kg (1.77 lbs)                                                       |
| Operating Temperature                                     | -10 °C to 40 °C (14 °F to 104 °F)                                                            |
| Storage Temperature                                       | -20 °C to 60 °C (-4 °F to 140 °F)                                                            |

\*<sup>1</sup>Input Voltage 12 Vdc

\*<sup>2</sup>Depth Dependant

Specification subject to change in line with Tritech's policy of continual product development



Not to scale. Measurements in mm.

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