Photo courtesy of Atlantas Marine

ROV Ultrasonic Thickness Gauge

tritex ndt

"The gauge worked well and we got readings off the hull, I have to admit to being surprised given the corroded state of the hull."

Salvage and Marine Operations, United Kingdom

Typical Applications

Shipping

Bridges

Pipelines

Dockyards

Offshore Platforms

Wind Turbines

Pilings

Dock Gates

Multigauge 4000 ROV

The Multigauge ROV 4000 series Underwater Gauges are simple, robust ultrasonic thickness gauges designed to be mounted onto all types of ROV's. There are three models in the range:

- **Multigauge 4050 Micro** – A compact design to fit small and Micro ROV's - depth rated to 500m
- **Multigauge 4100** – A general purpose gauge for medium size ROV's - depth rated to 1000m
- **Multigauge 4400** – Made from titanium for deep sea inspections - depth rated to 4000m

All gauges have been designed and built to survive extremely harsh conditions that exist in the offshore and underwater industries worldwide. The gauges use multiple echo, which means measurements can be easily taken without the need to remove coatings up to 6mm thick, and the user selectable RS232 or RS422 output makes connection to most ROV's simple. An optional A-scan output is also available.

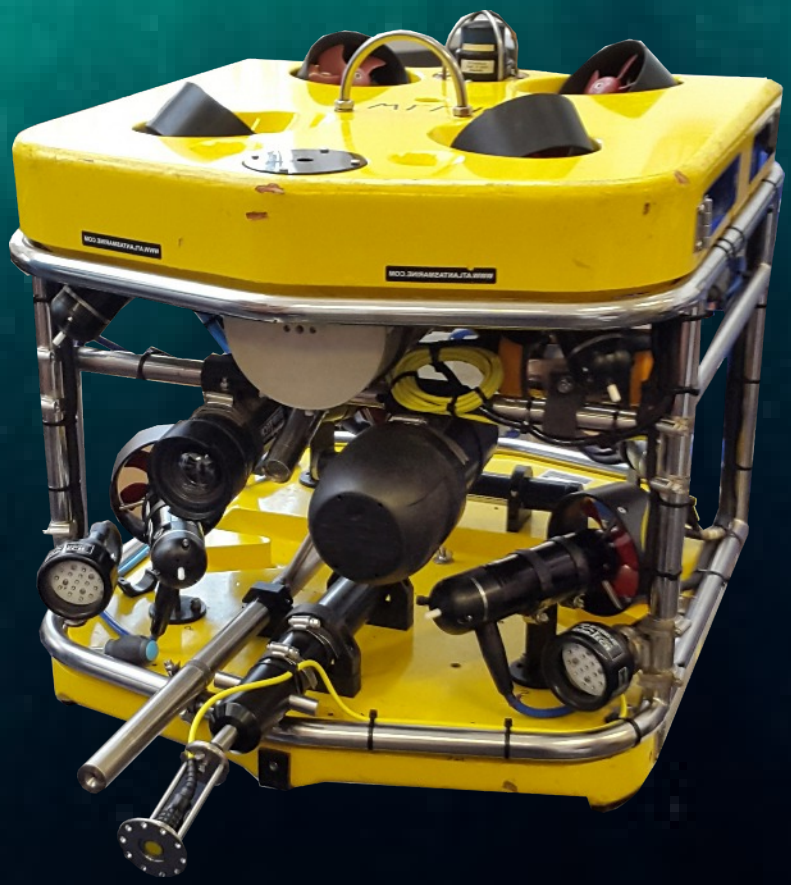
The gauge is equipped with Intelligent Probe Recognition (IPR), which automatically adjusts settings in the gauge for enhanced performance and Automatic Measurement Verification System (AMVS) to ensure only true measurements are displayed, even on the most heavily corroded metals.

Performance is the most important feature of our ultrasonic thickness gauges. Tritex gives you the excellent performance that you would expect, with free annual calibration for the life of the gauge.

Robust Probe & Cable

Features

- Ignores coatings up to 6mm thick using multiple echo. Coating Plus+ ignores coatings up to 20mm
- Depth rating to 500m, 1000m and 4000m
- Easy to use datalogging software
- Various output types, including ASCII to overlay measurements onto video
- Real time A-scan - Optional
- Compatible with most ROV's
- RS232 or RS422 output
- Optional probe holder for correct presentation of the probe
- Rugged and robust
- Intelligent Probe Recognition (IPR)
- Automatic Measurement Verification (AMVS)
- No zeroing required
- Free calibration for the life of the gauge



"The gauge gives quick and accurate readings, requires far less surface preparation than other makes we have used and locks on much faster. It can speed up the survey process by a factor of at least two."

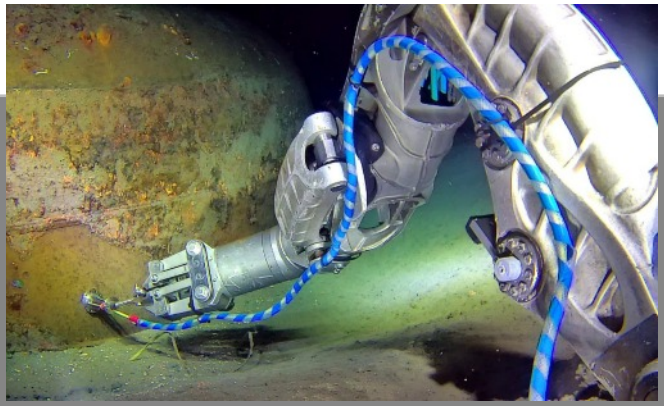
Harbour & Marine Diving Contractors Ltd - United Kingdom

simple . accurate . robust

Probe Holder

The Multigauge ROV Probe Holder has been designed to accurately present the ROV probe onto the surface being measured, whether it is curved or flat. The ingenious design means there are no moving parts to get clogged with silt and seaweed and yet there is a 75° freedom of movement in all directions - there are no axial restrictions. It is made from titanium for strength and lightness.

The probe can be mounted slightly recessed into the holder to prevent damage to the probe if a collision with the surface occurred. Measurements are unaffected by the small water gap due to the Multiple Echo technology used by all Tritex gauges, which ignores the water gap as if it were a coating.



"We have found the Tritex easy to integrate to various ROV systems. The probe handler is very effective, and it continues to be a reliable and trouble-free sensor."

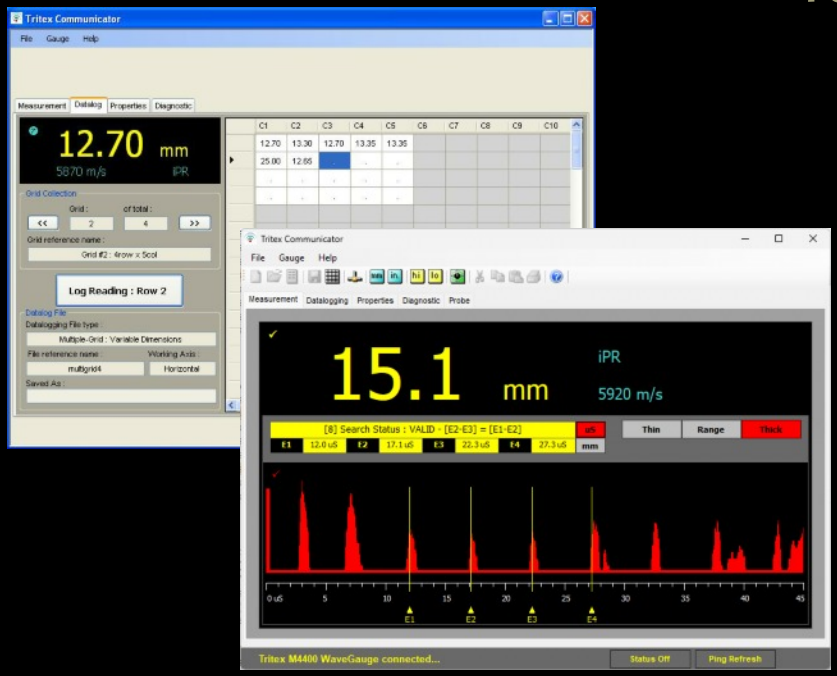
Atlantas Marine Ltd - United Kingdom

Communicator Software

Tritex Communicator software displays live measurement results from the Multigauge 4000 onto either a laptop or PC. Templates can be preset based on a grid or string of measurements. This gives maximum versatility for a wide range of applications including measurements on pipelines, pilings or ship hulls.

As well as storing measurement data, Communicator software also has the option to store the time, date and an identifying label for each measurement. In addition, various settings within the gauge can be changed from the software to optimise performance.

The stored data is saved in a standard TXT format allowing importation into standard analysing programs.



Features

- Displays real time measurements from the Multigauge 4000 Ultrasonic Thickness Gauge
- Easy to install and very user friendly
- Datalogging with grid or string templates, or a combination of both
- Bi-directional to allow settings in the gauge to be changed when the Multigauge 4000 is being used underwater
- Real time A-scan - Optional
- Accepts RS232 or RS422 input
- Time, date and a label can be added to each measurement value
- Common output interface (.txt)
- Easy to use wizards for template programming

Specifications

Multigauge 4000 Gauge

3 YEAR WARRANTY

** Figures relate to most coating types*

Sound Velocity Range	*From 1000 m/s to 8000 m/s (0.0394 in/µs to 0.3150 in/µs)*		
Single Crystal Soft Faced Probe Options	*2.25 MHz*	*3.5 MHz*	*5 MHz*
Probe Measurement Range	*3 - 250 mm (0.120" to 10")*	*2 - 150 mm (0.080" to 6")*	*1 - 50 mm (0.040" to 2")*
Probe Sizes	*13 mm (0.5") & 19 mm (0.75")*	*13 mm (0.5")*	*13 mm (0.5")*
Resolution	*0.1 mm (0.005") or 0.05 mm (0.002")*		
Accuracy	*± 0.1 mm (0.005") or ± 0.05 mm (0.002")*		
Coatings Range	*Up to 6mm (Standard Mode)*; up to 20mm (Coating Plus+)**		
Output	*RS232 or RS422 User Selectable.* ***Optional A-scan***		
Output Format	*Tritex (for use with Communicator), NMEA or ASCII*		
Pressure Rating	*Multigauge 4050 ROV: 500 m (1,640 feet)* *Multigauge 4100 ROV: 1000 m (3,280 feet)* *Multigauge 4400 ROV: 4000 m (13,123 feet)*		
Power	*9Vdc - 30Vdc @ 150mA*		
Probe Cable Length	*Multigauge 4050 ROV: 1.5 m (4.92 feet)* *Multigauge 4100 and 4400 ROV: 3.0 m (9.84 feet)*		
Gauge Dimensions	*Multigauge 4050 ROV: 145 mm x 52 mm (5.71" x 2.05")* *Multigauge 4100 and 4400 ROV: 145 mm x 72 mm (5.71" x 2.83")*		
Gauge Weight	*Multigauge 4050 ROV: 620 g (21.87 ounces)* *Multigauge 4100 ROV: 855 g (30.16 ounces)* *Multigauge 4400 ROV: 2500 g (151.68 ounces)*		
Environmental	*RoHS and WEEE compliant*		
Operating Temperature	*-10°C to +50°C (14°F to 122°F)*		
Storage Temperature	*-10°C to +60°C (14°F to 140°F)*		

Kit Contents

Multigauge 4000 gauge, probe assembly with cable, spare membranes, membrane oil, 15mm test block, membrane key, spare 'O' rings, Molykote grease, nose cone release bar, communicator software, RS422 - USB converter, RS232 - USB Converter, Impulse connector with fly lead, ROV test cable (including Impulse connector), power supply for use with test cable, manual, calibration certificate, carry case.

Optional: A-scan output. Probe Holder supplied with spare rubber universal joints, Allen keys.

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Contact

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Trustpilot

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tritex ndt

QAS International
ISO 9001:2015

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Made in the UK

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