

RELIABLE ULTRASONIC MEASUREMENT





CYGNUS ROV UTM

ULTRASONIC THICKNESS GAUGE



Specifically designed for underwater remotely operated vehicles, Cygnus offers a dedicated ROV mountable thickness gauge (depth rated to 3,000m) with live A-scan and piezo-composite probe. This gauge is versatile and designed to measure metal thickness in the harshest subsea operating conditions - without the need to remove coatings.







MARINE STRUCTURES



OFFSHORE PLATFORMS

...Class surveys on offshore installations or units, subsea inspection, repair and maintenance (IRM) of infrastructure, underwater equipment



CYGNUS ROV UTM KEY FEATURES



- · A-scan to assist with measurement verification visually
- Multiple-Echo and Echo-Echo modes for accurate measurements through coatings (up to 1mm) as specified by Classification Societies
- Single-Echo mode for heavily corroded metals with no coating
- Use the Auto SE/EE/ME measuring mode for best results or set manually
- Supplied with CygLink software to display and process measurements on a computer at the surface
- High-performance SD2C probe fitted with a Hard Rexolite Delay line
- Easy calibration and measurement settings via CygLink software at the surface
- P50 Probe Handler cleverly-designed to self-align with pipes from 50mm diameters to flat surfaces
- Manual or automatic gain control



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DEPTH RATED TO3KM/9,843FT



CYGLINK SOFTWARE



CLEVER PROBE HANDLER FOR EASY ALIGNMENT



LIVE A
SCAN FOR
FURTHER
VERIFICATION





BENEFITS OF MULTIPLE-ECHO

- Measures remaining metal thickness or corroded and coated structures
- All measurements are error checked using 3 return echoes to give repeatable, reliable results
- Accepted by all major classification societies
- Greatly reduces inspection time and costs

OPTIONS AND ACCESSORIES

Probe Handling Solutions

The 'P50' Probe Handler is designed to align the ultrasonic probe on to straight pipes, from 50mm in diameter up to flat surfaces.

The spring-loaded probe and v-shaped block allow the probe to be positioned correctly on a straight pipe and move to accommodate different pipe diameters.

A gimbal allows the probe to move to align on to the straight pipe surface when used with a ROV manipulator arm.

The probe handler can be fitted with a choice of manipulator handles; T Bar or Fishtail.





Fishtail Handle

Cyglink Computer Software

CygLink is a Windows® based application for topside computer use to display continuous A-Scan output and measurement data. CygLink has the facility to log both data formats into a Survey file for report presentation, which can be emailed, exported as a PDF, or printed.



CYGNUS ROV UTM SPECIFICATION

Feature	Description
Materials	Sound velocities between 2000 m/s and 9000 m/s (0.0780 in/us to 0.3543 in/us)
Measuring Modes	Multiple-Echo using 3 echoes to ignore coatings up to 1mm(0.039") thick. Echo-Echo using 2 echoes to ignore coatings up to 1mm(0.039") thick. Single-Echo using 1 echo
Accuracy	\pm 0.1 mm (\pm 0.004") or 0.1% of thickness measurement, whichever is greatest, when calibrated in accordance with Cygnus Instruments calibration procedure
Measurement Range in Steel	Multiple Echo: 4 - 20mm (0.157" to 0.78") Echo Echo: 4 - 30mm (0.157" to 1.18") Single Echo: 4 - 50mm (0.157" to 1.96")
Measurement Resolution	0.1 mm (0.005")
Probe Zero	Automatic and manual selectable
Power	12 - 24 V supply input @ 60mA (average) @ 200mA (maximum)
Size	105mm x 110mm x 35mm (4.1 in x 4.3 in x 1.4 in) (W x H x D)
Weight in Air	Gauge body 3.7kg max (8.2 lb.)
Operating Temp.	-10°C to 50°C (14°F to 122°F)
Environmental Rating	IP68 rated to 3000m (9,843 ft)
Communication	RS-232
Computer Software	CygLink allows remote data logging and viewing of A-scan graphs Survey and report generation to PDF file Graphic analysis of data Designed for Windows 10 and above
Environmental	CE, UKCA, RoHS
Warranty	3 years on gauge and 6 months on probe



ISSI 11/21 All information provided is subject to change without prior notice.

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