CYGNUS
INSTRUMENTS

RELIABLE ULTRASONIC MEASUREMENT

CYGNUS 4+ GENERAL PURPOSE

ULTRASONIC THICKNESS GAUGE

MADE IN BRITAIN

The Cygnus 4+ General Purpose thickness gauge is a light, tough multi-mode thickness gauge. It features a sunlight readable display with Live A-scan, intuitive menu and sequential data logging for easy reporting and analysis. Used with Cygnus High Temperature Probe, the Cygnus 4+ can measure remaining wall thickness of high-temperature, in-service assets without shutdown or isolation.

IDEAL FOR USE IN

- OIL AND GAS
- HIGH TEMPERATURE
- STORAGE TANKS
- PIPES/ TUBES
- SHIP SURVEYS

...plant maintenance, civil engineering, ship inspections, oil and gas facilities. High-temperature, in-service thickness surveys across refining, oil and gas, energy and process sectors.

CYGNUS 4+ GENERAL PURPOSE KEY FEATURES

- **Multiple-Echo mode for accurate, through-coat measurements as specified by Classification Societies**
- **Echo-Echo and Single-Echo modes for heavily corroded metals with a thin or no coating**
- Deep Coat function ignores coatings up to 20mm thick
- Manual and automatic gain control
- Min/max measurement limit functions with visual and vibrate alert
- Large front sunlight readable LCD display with Live A-scan
- Water and dust tight IP67 housing
- Shock and impact proof to US MIL STD 810G
- Safe operation in explosive atmospheres: Class 1, Division 2, Group D locations only, as defined in NFPA 70, Article 500
- One and two point calibration
- Can be upgraded to 6+ at an additional cost

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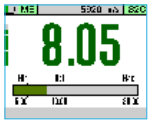
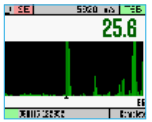
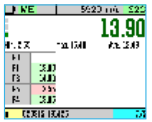


MIN/MAX LIMIT AND ALERT FUNCTIONS



LIVE A-SCAN FOR FURTHER VERIFICATION



DATA LOGGING WITH AUTO-LOG

USE WITH SINGLE & TWIN CRYSTAL PROBES

Visit www.cygnus-instruments.com to explore our full product range

BASIC DATA LOGGING

- Linear based data logging
- Eight user-defined comments to attach to any measurement point
- Auto-log feature
- Saves measurements and A-scans
- Records stored on SD card
- CygLink software used to transfer and manage data

Three Versatile Measuring Modes

Multiple-Echo mode uses three error checked back wall echoes to provide the most reliable and accurate remaining thickness measurements, with no need to remove coatings (up to 20mm/0.8 in thick).

Single-Echo mode is ideal for measuring uncoated metals with heavy front and/or back-wall corrosion. Also effective on a range of cast metals, plastics and composites.

Echo-Echo mode works best for measuring heavily corroded metals through thin coatings of up to 1mm/0.04in thick, ideal for measuring painted metals with heavy back wall corrosion.

Cygnus High Temp Probe T5B-MAUH (Twin Crystal)

For use on hot surfaces up to 300°C. Measures remaining wall thickness from 1.5mm to 250mm - depending on temperature and material. **No cooling period required** - reducing inspection time and facilitating more effective measurement.

Option to use a standard cable or a more robust, braided cable.

Standard Cable

Braided Cable

Measurement Stability Indicator (MSI™)

Exclusive to Cygnus, MSI™ ensures stable and therefore reliable measurements are displayed in Echo-Echo and Single-Echo modes.

Cyglink Computer Software

CygLink is a Windows® based application for 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.

Call our team today on +44 (0) 1305 265 533 for expert product advice

CYGNUS 4+ GENERAL PURPOSE SPECIFICATION

Feature	Description
Measuring Modes	Multiple-Echo using 3 echoes to ignore coatings up to 20mm thick Echo-Echo using 2 echoes to ignore coatings up to 1mm thick Single-Echo using 1 echo
Materials	Velocities from 1,000 - 9,000 m/s (0.0390 - 0.3543 in/us)
Accuracy	±0.05 mm (±0.002") - in Multiple-Echo measurement mode, when calibrated and measuring the same material as calibrated on. ±0.1 mm (±0.004") or 0.1% of thickness measurement whichever is the greatest - in Single-Echo & Echo-Echo measurement modes, when calibrated and measuring the same material as calibrated on.
Resolution	Multiple-Echo mode - 0.1 mm (0.005") or 0.05 mm (0.002") Single-Echo and Echo-Echo modes - 0.1 mm (0.005") or 0.01 mm (0.001")
Probe Options	Single Crystal probes, Twin Crystal probes and High Temp probe
Measurement Range in Steel	0.8 – 250mm (0.031 in. – 10 in.) depending on selected probe and configuration, material and temperature
Connector	2 x Lemo 00
Power	3 x AA batteries
Battery Life	Approx. 10 hours continuous measurement
Electronics	Dual channel pulser
Display	2.4" QVGA LCD, 47 mm (W) x 37 mm (H)
Size	84mm x 130mm x 35mm (W x H x D) (3.3" x 5.1" x 1.4")
Weight	300g (10.5 oz.) (inc. batteries)
Operating Temp.	-10°C to 50°C (14°F - 122°F)
Data Logging	5000 measurements and A-scans per record. Max number records: 100
Computer Software	CygLink allows remote logging and viewing of A-scan graphs Survey and report generation to PDF file Graphic analysis of data and statistical calculations
Environmental Rating	IP67 Safe operation in Explosive Atmospheres: Class I, Division 2, Group D Locations only, as defined in the National Fire Protection Association Code (NFPA 70), Article 500. Tested using MIL-STD-810G, Method 511.5, Procedure I MIL STD 810G Method 501.6 (high temp +55°C (131°F)) MIL STD 810G Method 502.6 (low temp -20°C (-4°F)) MIL STD 810G Method 507.6 (humidity 95%) MIL STD 810G Method 512.6 (immersion - 1 metre for 30 mins)
Shock and Impact	MIL STD 810G Method 514.7 (vibration - 1 hour each axis) MIL STD 810G Method 516.7 (shock 20g - 11ms half sine shock pulse, 40g 11ms in each axis) MIL STD 810G Method 516.7 (26 drops - transit drop 1.22 m)
Standards	Designed for EN 15317
Compliance	CE, UKCA, RoHS
Warranty	3 years on gauge and 6 months on probe

*except high temperature measurements

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All information provided is subject to change without prior notice.

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