



# CYGNUS 6+ PRO

ULTRASONIC THICKNESS GAUGE



The Cygnus 6+ PRO thickness gauge boasts a full range of useful features for professional users, including A-scan, B-scan and comprehensive data logging. Used with Cygnus High Temperature probe, the Cygnus 6+ PRO can measure remaining wall thickness of high-temperature, in-service assets without shutdown or isolation.

IDEAL FOR  
 USE IN



OIL AND  
 GAS



HIGH  
 TEMPERATURE



PROCESS  
 PLANTS



SHIP  
 SURVEYS



PIPES/  
 TUBES

...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 6+ PRO 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
- Temperature Compensation feature for measurement on hot materials
- Deep Coat function ignores coatings up to 20mm thick
- Manual and automatic gain control
- Min/max measurement limit functions with visual and vibrate alert
- Uses single and twin crystal probes
- Freeze function
- One and two point calibration
- Bluetooth for data transfer
- Large front LCD display and end-mounted rotatable LCD display with grayscale setting for bright sunlight
- Safe operation in explosive atmospheres: Class 1, Division 2, Group D locations only, as defined in NFPA 70, Article 500
- Water and dust tight IP67 housing
- Shock and impact proof to US MIL STD 810G



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**ADVANCED  
DATA LOGGING**  
WITH RADIAL  
POINTS



**DUAL LCD  
DISPLAY –  
FRONT & END  
MOUNTED**



**ROLLING  
B-SCAN WITH  
AUTO START/  
STOP**



**LIVE A-SCAN  
FOR FURTHER  
VERIFICATION**

## COMPREHENSIVE DATA LOGGING

- Linear, 2D grid and template based logging
- 16 grid patterns available
- Add radial points to any measurement to further investigate immediately an area of interest or heavy corrosion
- Eight user-defined text comments to attach to any measurement point
- Auto-log feature
- Saves measurements and A-scans
- Records stored on an 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.



## CYGNUS 6+ PRO SPECIFICATION

| Feature                           | Description  |
|-----------------------------------|--|
| <b>Measuring Modes</b>            | Multiple-Echo using 3 echoes to ignore coatings up to 20mm thick.<br>Echo-Echo using 2 echoes to ignore coatings up to 1mm thick.<br>Single-Echo using 1 echo  |
| <b>Materials</b>                  | Velocities from 1,000 - 9,000 m/s (0.0390 - 0.3543 in/us)  |
| <b>Accuracy</b>                   | ±0.05 mm (±0.002") - in Multiple-Echo measurement mode, when calibrated and measuring the same material as calibrated on.<br>±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.  |
| <b>Resolution</b>                 | Multiple-Echo mode - 0.1 mm (0.005") or 0.05 mm (0.002")<br>Single-Echo and Echo-Echo modes - 0.1 mm (0.005") or 0.01 mm (0.001")  |
| <b>Probe Options</b>              | Single Crystal probes, Twin Crystal probes and High Temp probe   |
| <b>Measurement Range in Steel</b> | 0.8 – 250mm (0.031 in. – 10 in.) depending on selected probe and configuration, material and temperature   |
| <b>Connector</b>                  | 2 x Lemo 00  |
| <b>Power</b>                      | 3 x AA / R6 batteries  |
| <b>Battery Life</b>               | Approx. 10 hours continuous measurement  |
| <b>Electronics</b>                | Dual channel pulser  |
| <b>Display</b>                    | Front LCD 2.4" QVGA 47 mm (W) x 37 mm (H); End-mounted LCD 25.58mm (W) x 6.38 (H)  |
| <b>Size</b>                       | 84mm x 130mm x 35mm (W x H x D) (3.3" x 5.1" x 1.4")   |
| <b>Weight</b>                     | 300g (10.5 oz.) (inc. batteries)   |
| <b>Operating Temp.</b>            | -10°C to 50°C (14°F - 122°F)   |
| <b>Data Logging</b>               | 5000 measurements and A-scans per record. Max number records: 100 (soft limit)   |
| <b>Computer Software</b>          | CygLink allows remote logging and viewing of A-scan graphs<br>Survey and report generation to PDF file<br>Graphic analysis of data and statistical calculations  |
| <b>Environmental Rating</b>       | IP67<br>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.<br>Tested using MIL-STD-810G, Method 511.5, Procedure I<br>MIL STD 810G Method 501.6 (high temp +55°C (131°F))<br>MIL STD 810G Method 502.6 (low temp -20°C (-4°F))<br>MIL STD 810G Method 507.6 (humidity 95%)<br>MIL STD 810G Method 512.6 (immersion 1 metre for 30 mins) |
| <b>Shock and Impact</b>           | MIL STD 810G Method 514.7 (vibration)<br>MIL STD 810G Method 516.7 (shock 20g)<br>MIL STD 810G Method 516.7 (transit drop 1.22 m)  |
| <b>Standards</b>                  | Designed for EN 15317  |
| <b>Compliance</b>                 | CE, UKCA, RoHS   |
| <b>Warranty</b>                   | 3 years on gauge and 6 months on probes  |

\*except high temperature measurements

ISS2 04/22

All information provided is subject to change without prior notice.



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