



# **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











...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.

**USE IN** 



### **CYGNUS 6+ PRO KEY FEATURES**



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- 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



**ADVANCED DATA LOGGING** WITH RADIAL POINTS



**DUAL LCD DISPLAY-**MOUNTED



ROLLING B-SCAN WITH FRONT & FND 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**

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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	$0.8$ – $250\mathrm{mm}$ (0.031 in. – $10$ in.) depending on selected probe and configuration, material and temperature
Connector	2 x Lemo 00
Power	3 x AA / R6 batteries
Battery Life	Approx. 10 hours continuous measurement
Electronics	Dual channel pulser
Display	Front LCD 2.4" QVGA 47 mm (W) x 37 mm (H); End-mounted LCD 25.58mm (W) x 6.38 (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 (soft limit)
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) MIL STD 810G Method 516.7 (shock 20g) MIL STD 810G Method 516.7 (transit drop 1.22 m)
Standards	Designed for EN 15317
Compliance	CE, UKCA, RoHS
Warranty	3 years on gauge and 6 months on probes



Cygnus Headquarters

**Email** sales@cygnus-instruments.com **Visit** cygnus-instruments.com

\*except high temperature measurements

Cygnus UAE

Call +971 50 3459305 Email ribu@cygnus-instruments.com Visit cygnus-instruments.com Cygnus USA

All information provided is subject to change without prior notice.

Call +1 346 223 0415

Email sales@cygnus-instruments.com Visit us.cygnus-instruments.com

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**Cygnus Singapore** 

Call +65 6252 5909
Email sales@cygnus-instruments.s

Cygnus Instruments Ltd Cygnus House 30 Prince of Wales Road Dorchester Dorset DTI 1PW

