



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.











OIL AND

HIGH
TEMPERATURE

PROCESS DI ANTS

SHIP

PIPES/

...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



GO TO **PRODUCT** PAGE

- 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

| CYGNUS 6+ PRO 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 | $0.8-250 \mathrm{mm}$ (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 |
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Cygnus Headquarters

*except high temperature measurements

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