

Cygnus Instruments

Mk5 Ultrasonic Thickness Gauge - Cygnus 6+ PRO



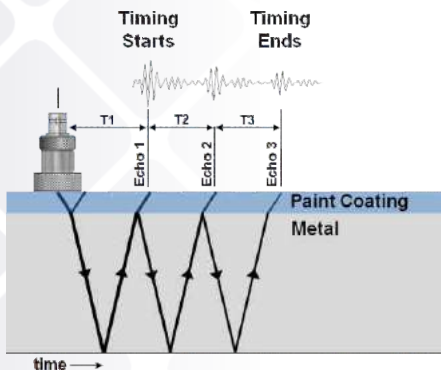
The **Cygnus 6+ PRO** thickness gauge has a full range of features, including Multi-Mode measuring capabilities, A-scan, B-scan and comprehensive data logging.

KEY FEATURES

- Uses Single and Twin Crystal Probes
- Measures using Multiple-Echo, Single-Echo and Echo-Echo modes
- Live A-scan display
- Rolling B-scans with auto start/stop
- Freeze button
- High temperature compensation
- Manual gain mode
- One and two point calibration
- Bluetooth v2.0 for data transfer
- Large front LCD display and end-mounted OLED display with grayscale setting for bright sunlight
- Explosive atmosphere: Safe operation, tested to MIL STD 810G method 511.5 procedure I

THREE VERSATILE MEASURING MODES

Multiple-Echo (Single Crystal Probes) uses three error checked back wall echoes to provide the most reliable and accurate remaining thickness measurements, with no need to remove coating (up to 20mm thick (0.8")).



Multiple-Echo Diagram

Echo-Echo (Twin Crystal Probes) measures through coatings of up to 1mm (0.04") thick, ideal for measuring painted metals with back wall corrosion.

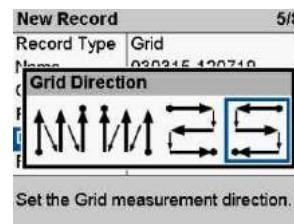
Single-Echo (Twin Crystal Probes) ideal for measuring uncoated metals with heavy back-wall corrosion. Also effective on a range of cast metals, plastics and composites.

MEASUREMENT STABILITY INDICATOR (MSI™)

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

COMPREHENSIVE DATA LOGGING

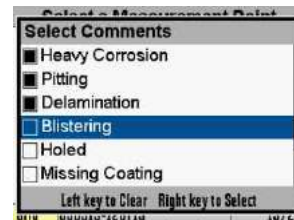
- Linear, 2D Grid and Template based logging
- 16 Grid Patterns
- Eight user-defined text comments to attach to any measurement point
- Add additional radial points to any measurement point for extra detail
- Auto-log feature
- Saves the A-scan presentations
- Record are stored on an SD card
- Cyglink used to transfer and manage data



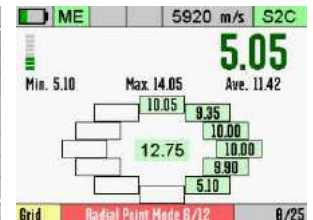
Set-up of Grid Direction



Measurement Grid



Measurement Point Comments



Radial Measurement Points

CYGLINK SOFTWARE

Cyglink is a Windows based application used to transfer and manage Data Logger Records, A-Scans, B-Scans, Templates, Measurement Comments and Material Velocity Tables. The program can generate PDF reports and export to Excel. It also displays A-Scans and B-Scans, allowing for after-the-event analysis of logged measurements.

DURABLE CABLES

Using standard industry connectors our probe leads offers superior flexibility and resistance to oils and ultraviolet light. The cable will not stiffen after exposure to ultraviolet light.

STANDARD KIT CONTENTS

Cygnus 6+ ultrasonic thickness gauge; padded carry case; operating manual; adjustable neck strap and loops; wrist strap; accessory pouch; spare membranes; surface and membrane couplant; test block; 3 x AA batteries; mini USB - USB cable and instruction manual; optional Krusell® belt clip and attachments accessory.

VARIETY OF PROBES

Cygnus Stainless Steel INOX Probes (Single Crystal) Used in Multiple-Echo mode, these probes include replaceable membranes for long life, require no zeroing and have a high linear accuracy.



Cygnus Stainless Steel INOX Probes (Twin Crystal) Used in Echo-Echo and Single-Echo modes, these probes have improved measurability on extreme back wall corrosion and pitting.



Gauge	Cygnus 6+ PRO		
Measuring Modes	Multiple-Echo using 3 sound pulses to ignore coatings up to 20mm thick. Echo-Echo using 2 sound pulses to ignore coatings up to 1mm thick. Single-Echo using 1 sound pulse.		
Materials	Sound velocities from 1,000 - 9,000 m/s (0.0390 - 0.3543 in/us)		
Accuracy	±0.1 mm (±0.004") or 0.1% of thickness measurement, whichever is greatest, when calibrated in accordance with Cygnus Instruments calibration procedure		
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 0.5 mm (0.002") or 0.01 mm (0.001")		
Probe Diameters & Frequencies	<div>Single crystal probes:</div> <ul style="list-style-type: none"> • 6 mm (0.25") - 5 MHz (S5A) • 13 mm (0.5") - 2.25 MHz (S2C (standard)), 3.5 MHz (S3C) or 5 MHz (S5C) • 19 mm (0.75") - 2.25 MHz (S2D) <div>Twin crystal probes:</div> <ul style="list-style-type: none"> • 5 mm (0.2") - 7.5 MHz (T7A) • 8 mm (0.32") - 5 MHz (T5B (standard)) • 12 mm (0.5") - 2 MHz (T2C (for attenuative materials, cast metals, plastics & composites)) 		
Measurement Range in Steel	Single crystal probes: • 1 - 250mm (0.040" - 10.00")	Twin crystal probes in Single-Echo: • 0.8 - 250mm (0.031" - 10.00")	Twin crystal probes in Echo-Echo: • 3 - 50mm (0.120" - 2.000")
Connector	Twin Lemo 00		
Power	3 x AA batteries		
Battery Life	10 hours minimum		
Electronics	Dual channel pulser		
Display	2.4" quarter VGA LCD and end-mounted OLED (rotatable)		
Display Info.	Thickness value, A-scan, B-scan and cross-section scan		
Size	132 mm x 82 mm x 34 mm (3.3" x 5.1" x 1.4") (W x H x D)		
Weight	300 grams (10.5 oz.) (inc. batteries)		
Operating Temp.	-10°C to 55°C (14°F - 131°F)		
Data Logging	500,000 measurement points, including A-scan & B-scan (5000 readings per record, soft limit of 100 records)		
Computer Software	CygLink allows remote logging & viewing of A-scan graphs. Survey & report generation to PDF file. Graphic analysis of data and statistical calculations. Designed for Windows 7 and Windows 8.		
Environmental Rating	IP67 Explosive Atmosphere: Safe operation as defined by Class I, Division 2, Group D, as found in the National Fire Protection Association Code (NFPA 70), Article 500, and 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)		
Compliance	CE, British Standard BS EN 15317:2013 (specification for the characterisation and verification of ultrasonic thickness measuring equipment)		
Environmental	RoHS, WEEE compliant		
Warranty	3 years on gauge and 6 months on probes		

