



CYGNUS 4+

GENERAL PURPOSE

ULTRASONIC THICKNESS GAUGE



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



GO TO
PRODUCT
PAGE



**MIN/MAX
LIMIT AND
ALERT
FUNCTIONS**



**LIVE A-SCAN
FOR FURTHER
VERIFICATION**



**DATA
LOGGING
WITH
AUTO-LOG**



**USE WITH
SINGLE & TWIN
CRYSTAL
PROBES**



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.



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

ISS2 04/22

All information provided is subject to change without prior notice.



Cygnus Instruments Ltd.
Cygnus House
30 Prince of Wales Road
Dorchester
Dorset DT1 1PW
United Kingdom



Official Cygnus distributor in the Netherlands :

U-F-M b.v.
Argon 3
4751 XC Oud Gastel
The Netherlands

+31 (0) 165 855 655
info@u-f-m.nl
www.u-f-m.nl