



## **Cygnus 4** General Purpose

**MULTIPLE ECHO** ULTRASONIC DIGITAL THICKNESS GAUGE

Measures metal thickness to determine wastage or corrosion – accurately, quickly and without removing protective coatings.



## Primary New Features

- Light, rugged, small and shock-proof within IP65 & IP67 sealed aluminum enclosure
- Gauge senses probe type and automatically adjusts settings for optimum performance
- Valid thickness measurements and minimum thickness function
- LCD graphic display with automatic white backlight
- Cygnus Echo-Strength bars assist thickness measurements
- Simple gauge and menu operation with 3 tactile keys
- Protective silicone sleeve offers maximum protection and versatility
- Secure, twist-to-lock probe connection (BNC)
- Deep-Coat mode for coatings up to 20 mm thick

The new Cygnus 4 is the most versatile through coating thickness gauge available and perfect for all lighting conditions.

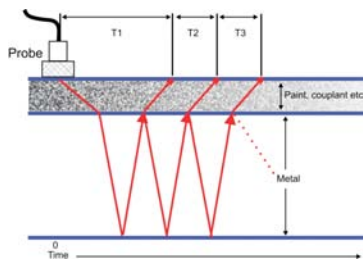
Lighter and simpler to use, yet accurate and very durable!

Ideal for use on flat surfaces or pipes. Our multiple echo single crystal probe technology means you can measure through thick coatings and only the remaining metal thickness is displayed.



## Benefits of Cygnus Multiple Echo

- Measures remaining metal thickness on corroded and coated structures
- All measurements are error checked using 3 return echoes to give repeatable, reliable results
- Accepted by all major classification societies
- Greatly reduces inspection time and costs
- Echo strength indicator to aid measurement



With multiple echo, readings are taken by measuring the time delay between any three consecutive backwall echoes. The time of T1 (coating thickness) is ignored. The times of T2 and T3 are equal to the time that it takes to travel through the metal. Only by looking at three echoes can the measurements be automatically verified (where  $T2 = T3$ ).



## Applications

Maintenance and safety checks of metal thickness for:

- Ships
- Storage tanks
- Pipelines
- Bridges
- Street lighting columns
- LPG vessels
- Road transport tankers
- Offshore platforms
- Piers, jetties and pilings
- Processing vessels
- Cranes
- ...plus many more

## Kit contents

Instrument, 2.25 MHz x 13 mm diameter probe, spare membranes, 15 mm steel test block, membrane couplant, ultrasonic couplant, accessory pouch, protective silicone sleeve with neck strap, operation manual, carry case and optional belt/harness clip.



## Specification

|                                 |  |
|---------------------------------|--|
| <b>Materials</b>                | Sound velocities between 2000 m/s and 7000 m/s – covers virtually all common engineering materials   |
| <b>Range in steel</b>           | 3 mm – 250 mm with 2.25 MHz probe<br>2 mm – 150 mm with 3.5 MHz probe<br>1 mm – 50 mm with 5 MHz probe   |
| <b>Accuracy</b>                 | ±0.1 mm or ±0.05 mm (selectable)   |
| <b>Resolution</b>               | 0.1 mm or 0.05 mm (selectable)   |
| <b>Probes</b>                   | Single crystal soft-faced compression.<br>6 mm – 5 MHz<br>13 mm – 2.25, 3.5 or 5 MHz<br>19 mm – 2.25 MHz<br><small>(Lower frequency probes offer better penetration on heavy corrosion/coatings)</small> |
| <b>Power</b>                    | 2 x 'AA' alkaline batteries or rechargeable NIMH / NiCD  |
| <b>Battery life</b>             | 30 hours' continuous operation with alkaline batteries (backlight on)  |
| <b>Display</b>                  | Large liquid crystal display with white backlight - automatically turns off in bright light conditions   |
| <b>Size</b>                     | 85 mm x 115 mm x 25 mm   |
| <b>Weight</b>                   | 275 g (inc batteries)  |
| <b>Operating Temp</b>           | -10°C to +50°C   |
| <b>Environmental Protection</b> | IP65 & IP67  |
| <b>Compliance</b>               | CE, British Standard BS EN 15317:2007<br><small>(Specification for the characterisation and verification of ultrasonic thickness measuring equipment)</small>  |
| <b>Environmental</b>            | RoHS, WEEE compliant   |

Specifications are subject to change for product improvement

For more products  
please see our website  
[www.cygnus-instruments.com](http://www.cygnus-instruments.com)

Hands Free



Intrinsically safe



Underwater



Datalogger



Heavy Duty



ROV Mountable



Mini ROV



Available from Elite Transducers Ltd  
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