CYGNUS
INSTRUMENTS

RELIABLE ULTRASONIC MEASUREMENT





CYGNUS 2+
HANDS FREE
ULTRASONIC THICKNESS GAUGE

MADE IN BRITAIN

The Cygnus 2+ is specifically designed for hands-free use by displaying measurements via an end-mounted screen. With three measuring modes, it measures the wall thickness of a variety of materials (including plastics) and metals of any level of corrosion and pitting.

IDEAL FOR USE IN

ROPE ACCESS

HULL UTM INSPECTION

CIVIL ENGINEERING

MARINE STRUCTURES

...structural integrity inspection via rope access or climbing, heavily corroded metals with front/back wall pitting, irregular geometric shapes, attenuative materials and ship surveys.





CYGNUS 2+ HANDS-FREE 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**
- **Hands free operation: wrist, waist belt and harness mountable**
- End-Mounted display shows thickness measurements - ideal for rope access or climbing work
- Front display enables easy gauge setup
- Deep Coat function ignores coatings up to 20mm thick
- MSI (Measurement Stability Indicator) verifies stable, reliable readings
- Intuitive easy to use menu
- Extremely rugged enclosure – shock and impact proof to US MIL STD 810G
- Environmental sealing (water and dust proof) to IP67 – US MIL STD 810G.
- Uses single and twin crystal probes
- Can be upgraded to 4+ or 6+ at an additional cost



SHOCK/ IMPACT PROOF TO US MIL STD 810G



WATER & DUST TIGHT IP67 HOUSING



END-MOUNTED ROTATABLE DISPLAY



USE WITH SINGLE & TWIN CRYSTAL PROBES

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.

Variety of Cygnus INOX Probes

Stainless steel SINGLE CRYSTAL probes - used in Multiple-Echo mode, these probes include replaceable membranes for long life, require no zeroing and have a high linear accuracy.

Stainless steel TWIN CRYSTAL probes - used in Echo-Echo and Single-Echo modes, these probes have improved measurability on extreme back wall corrosion and pitting.

Measurement Stability Indicator (MSI)

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

Durable Cables

Using standard industry connectors our probe leads offer superior flexibility and resistance to oils and ultraviolet light.

The cable will not stiffen after exposure to ultraviolet light.

CYGNUS 2+ HANDS-FREE **SPECIFICATION**

Feature	Description
Measuring Modes	Multiple-Echo using 3 echoes to ignore coatings up to 20 mm 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 and Twin crystal probes
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 / R6 batteries
Battery Life	Approx. 10 hours continuous measurement
Electronics	Dual channel pulser
Display	End-mounted rotatable LCD, 25.58 mm (W) x 6.38 mm (H) - for measurements 2.4" QVGA LCD, 47 mm (W) x 37 mm (H) - for gauge setup only
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)
Environmental Rating	IP67 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 1.22m)
Standards	Designed for BS EN ISO 16831
Compliance	CE, UKCA, RoHS
Warranty	3 years on gauge and 6 months on probe

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All information provided is subject to change without prior notice.

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