SPECIFICATIONS

Ultrasonic Thickness Gauge

ROV Mountable Multiple Echo Ultrasonic Digital Thickness Gauge - 2000 msw Pressure Rated Model.

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

Specifications	
Materials	Sound velocities between 1000 and 9995 m/s
Measurement Range in Steel	3 mm - 250 mm (0.110" - 9.994") with 2.25 MHz probe 2 mm - 150 mm (0.065" - 6.000") with 3.5 MHz probe 1 mm - 50 mm (0.045" - 4.000") with 5.0 MHz probe
Accuracy	0.1 mm (0.005") when calibrated in accordance with Cygnus Instruments Calibration Procedures
Resolution	0.05 mm (0.002")
Probes	Single crystal soft-faced compression 13 mm (1/2") - 2.25, 3.5 or 5 MHz (Lower frequency probes offer better penetration on heavy corrosion/coatings)
Power	7.0 - 30 V dc @ 150 mA (max)
Size	88.90 mm (3.50") diameter x 205 mm (8.07") long (inc. fittings)
Weight	Model M5-ROV-2K = 0.975 kg (2.150 lbs)
Operating Temp.	-10°C to +50°C (14°F to 122°F)
Testing	Model M5-ROV-2K tested to 3 km (9,842 ft) depth
Communication	RS-422, Simplex Single Pair or RS-232 TXD 2400 or 9600 Baud (Selectable via DIP switches)
Compliance	CE, British Standard BS EN 15317:2007 (Specification for the characterisation and verification of ultrasonic thickness measuring equipment)
Environmental	RoHS, WEEE compliant

Kit Contents

- Cygnus ROV Gauge
- Power and data cable connector
- Probe cable with marinised remote probe 5 m (16 ft)
- ‘K3’ RS-422 to RS-232 converter
- RS-232 to USB converter
- Cyglink data logging software
- Membrane couplant for the UT probe
- Spare membranes for the UT probe
- Membrane locking ring key
- Spare O-Rings for ROV
- 15 mm (1/2") test block
- Spare 1A fuses
- 3 mm (0.100") allen key
- Silicone grease

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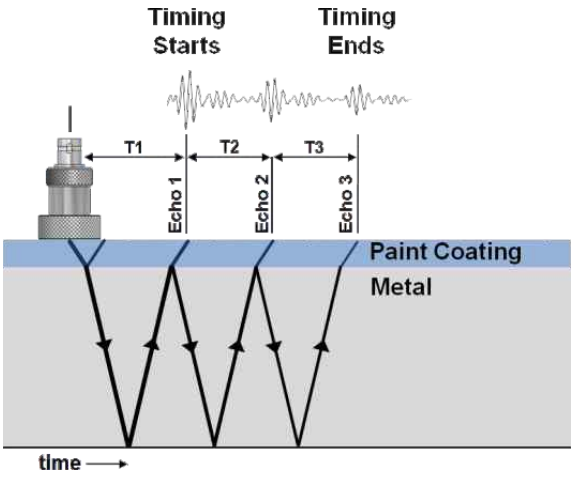

With multiple echo, readings are taken by measuring the time delay between any three consecutive backwall echos. The time of T1 (coating thickness) is ignored. The times of T2 and T3 are equal to the time that it takes to travel through the metal. Only by looking at three echoes can the measurements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

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

CygLink Software

1. Displays the last thickness measurement value
2. Displays the current computer time
3. Displays the echo strength indicator bars
4. Selects the display mode
5. Selects between mm and inch units
6. Displays the current thickness measurement
7. Displays the link status.

Calibration to a Known Thickness The CygLink display can be calibrated to a known thickness using the gauge to measure a sample of the material that will be measured. This method ensures the velocity of sound is set for the actual material being measured rather than using a generic value.

Setting the Velocity of Sound The velocity of sound can be set to suit the material that will be measured, manually adjusted or set to one of the pre-defined common velocity values. By default it will be set to 5,920 m/s for mild steel.

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