



# CG70BDL & CG70ABDL Corrosion Thickness Gauge



## Product Description

The CG70 series large, easy to read display provides users with A and B-Scan options for accurate interpretation of measurements.

Both CG70 gauges offer a 2D cross sectional block view providing a graphical representation of a material's thickness, ideal for accurate analysis and identification of pits and corroded areas.

The CG70ABDL also features an A-Scan display, allowing users to fully interpret and control measurement readings. The user can select to view either the full waveform (RF) or the rectified waveform (RECT) showing either the positive or the negative cycle of the full waveform.

Taking 32 readings per second in scan mode, the internal data logger stores up to 12,000 readings together with their waveforms. RS232 output to the Elcometer NDT data management software allows ease of analysis and professional reporting.

The CG70 series has 64 user definable setups and works with a wide range of transducers which can be selected from the gauges internal menu.

The gain control function in Echo-Echo mode automatically adjusts the amplitude of the received echo, but it can be overridden using the selectable low, medium and high gain options to suit the properties of the material being measured, ideal for difficult applications.

## Advantages

- Range of display & measurement options: Pulse-Echo, Echo-Echo ThruPaint™ technology
- Adjustable gain: -30dB to 70dB range
- Multiple calibration and material selection options
- Automatic gain control (AGC)
- 64 User definable setups
- High speed scan mode: 16 readings per second
- Differential and minimal thickness alarm modes
- Data output and storage: 12,000 readings and waveforms or B-Scans
- Data management software



## Technical Specification

Model & Part Number	CG70BDL	CG70ABDL
Material thickness digits display	•	•
B-Scan cross sectional display	•	•
Combined B-Scan and digits display	•	•
Scan bar display	•	•
A-Scan display		+ Rectified, - Rectified, Full Waveform (RF)
Measurement Mode		PE & EE (ThruPaint™)
Measurement Rate		
Manual:		4 readings per second
Scan mode		32 readings per second
Scan bar display		6 readings per second
Measuring Range		PE: 0.63 - 254mm (0.025 - 9.999 inches) EE: 1.27 - 102mm (0.05 - 4.00 inches)
Measurement Accuracy		±0.01mm (±0.001 inch)
Measurement Resolution		0.01mm (0.001 inch)
Velocity Calibration Range		1250 - 9,999m/s (0.0492 - 0.3937in/μs)
Additional Features:		
High speed scan mode	•	•
Differential mode	•	•
Limit alarm mode	•	•
B-Scan display speed		15 seconds per screen
Flaw mode		Basic prove-up flaw detection using single element angle beam transducers
Calibration setups	6 factory & 64 user-definable setups transferrable to and from a PC archive	6 factory & 64 user-definable setups transferrable to and from a PC archive
Gates		• PE: 1 gate; EE: 2 gates, 1 gate with hold off • Adjustable threshold
Pulser type	square wave pulser	square wave pulser with adjustable pulse width (spike, thin, wide)
Gain	PE: selectable low, medium or high gain EE: automatic gain control (AGC)	manual or automatic gain control (AGC) with 40dB range (depending on mode selected)
Timing	20MHz with ultra low power 8 bit digitizer	20MHz with ultra low power 8 bit digitizer
Data logging	• 12,000 readings with waveform • sequential and grid logging • Alpha numeric batch identification	• 12,000 readings with waveform • sequential and grid logging • Alpha numeric batch identification
Calibration Options	• OBSTRUCT indicates inaccessible locations single, two point, velocity & material type	• OBSTRUCT indicates inaccessible locations single, two point, velocity & material type
Transducer Probe Type		dual element
Transducer Frequency Range		1 - 10MHz
Transducer recognition		manual - selectable from a list
V-path / dual path error correction		automatic
Probe zero		manual (via integrated probe disk)
Display		1/8" VGA (greyscale) 62 x 45.7mm viewable area
Units (selectable)		mm or inches
LED Backlight		on / off / auto
Repeatability / Stability Indicator	•	•
Battery Type		3 x AA alkaline
Battery Life (approximate)		200 hours
Low Battery Indicator	•	•



Battery Save Mode	auto
Operating Temperature	-10 to 60°C
Size (w x h x d)	63.5 x 165.0 x 31.5mm
Weight (including batteries)	383g
Aluminium case design	•
with gasket sealed end caps,	
waterproof membrane keypad	
Transducer Connector Type	LEMO
RS232 Interface	Bi-directional

## Packing List

- Elcometer NDT CG70BDL gauge / Elcometer NDT CG70ABDL gauge
- Couplant
- Carry Case
- User Manual
- Test Certificate
- 3 x AA Batteries
- Software
- Transfer Cable

## Accessories

### Cables & Adapters

TL-24030-6	T/Cable: 4' Dual Lemo to Lemo
TL-24030-7	T/Cable: 4' Dual Lemo to Microdot
TL-24030-9	T/Cable: 4' Dual Lemo to M/dot, HT Arm
TL-24031	RS232 Cable (6'); DB-9 to Lemo
TL-24032	USB to Serial Adapter

### Couplant

TC-24034-1	Couplant: Standard; 4oz Bottle
TC-24034-2	Couplant: Standard; 12oz Bottle
TC-24034-3	Couplant: Standard; 1 Gallon
TC-24034-4	Couplant: Hi-Temp 343oC; 2oz Tube
TC-24034-5	Couplant: Hi-Temp 482oC; 2oz Tube

