



CCG100B, CG100BDL, CG100ABDL & CG100ABDL+ Corrosion Thickness Gauge



Product Description

The most advanced in the Elcometer NDT range, these easy to use corrosion gauges provide inspectors with all the features necessary to accurately measure the material and coating thickness at the same time.

Offering a full range of measurement modes including: Pulse-Echo Temp Comp Mode (PETP) and Coating Only Mode (CT) to Pulse-Echo Coating Mode (PECT), the CG100 range allows the inspector to choose the right tool for the job.

Featuring automatic gain control (AGC) for ease of use or manual adjustment (-30dB to 70dB) to increase the amplitude of the received echo to suit the material properties, the CG100 series are ideal gauges for all applications.

The time corrected gain (TCG) feature automatically compensates for sound attenuation through a material, further increasing the performance of the gauge.

Built-in Gates allow users to set the measurement parameters either on or between waveforms, bypassing any surface echoes or noise from the material. Threshold adjustment allows users to adjust the sensitivity of the gauge to detect signals with lower amplitudes.

The CG100BDL, CG100ABDL & CG100ABDL+ store up to 16,000 readings with individual waveforms in alpha numeric batches and full data logging through RS232 data output to Elcometer NDT data management software.

With its high contrasting colour display the CG100ABDL+ has a refresh rate of 120Hz providing users with an instant measurement response.

Advantages

- Range of display & measurement options: Pulse-Echo, Echo-Echo ThruPaint™ technology
- Range of display & measurement options: Pulse-Echo, Echo-Echo, Pulse-Echo Temp, Comp Mode (PETP), Coating Only Mode (CT), Pulse-Echo Coating Mode (PECT)
- Adjustable gain: -30dB to 70dB range
- Automatic gain control (AGC), Time corrected gain (TCG)
- Gate control, Threshold adjustment
- 64 User defined setups, Multiple language display
- Multiple calibration and material selection options
- High speed scan mode: 32 readings per second
- Differential and minimal thickness alarm modes
- Data output and storage: 16,000 readings and waveforms or B-Scans
- Data management software



Technical Specification

Model & Part Number	CG100B	CG100BDL	CG100ABDL	CG100ABDL
Material thickness digits display	•	•	•	•
B-Scan cross sectional display	•	•	•	•
Combined B-Scan and digits display	•	•	•	•
Scan bar display	•	•	•	•
Coating thickness display	•	•	•	•
A-Scan Display			+ Rectified, - Rectified, Full Waveform (RF)	
Measurement Mode			PE, PETP (Temp Compensation), EE (ThruPaint™), EEV, CT (Coating) & PECT	
Measurement Rate				
Manual:			4 readings per second	
Scan mode		50 readings per second		32 / second
Scan bar display			6 readings per second	
Measuring Range			PE: 0.63 - 508mm PETP: 0.63 - 508mm	
	EE: 2.54 - 102mm			EE: 1.27 - 102mm
			EEV: 1.27 - 25.4mm CT: 12.7 - 254µm PECT: 0.63 - 508mm PECT: 0.01 - 2.54mm	
Measurement Accuracy			±0.01mm	
Measurement Resolution			0.01mm	
Velocity Calibration Range		1250 - 13,995m/s		1250 - 9,999m/s
Additional Features:				
High speed scan mode	•	•	•	•
Differential mode	•	•	•	•
Limit alarm mode	•	•	•	•
B-Scan display speed	15 seconds per screen			adjustable display speed
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	
Gates				3 fully adjustable gates: start, stop, width & threshold
Damping				adjustable; impedance matching for optimising transducer performance
Pulser type	dual square wave pulsers up to 140Hz pulse repetition rate			dual 200 volt square wave pulsers with adjustable pulse width (spike, thin, wide) and 50 volt cut/boost for greater penetration
Gain	time corrected gain (TCG), automatic gain control (AGC) with 110dB range (limited), or selectable gain: vlow, low, medium hi or vhi			manual, automatic gain control (AGC) with 110dB range (limited), or selectable gain: vlow, low, medium hi or vhi
Timing			precision 25MHz TCXO with single shot 100MHz 8bit ultra low power 8 bit digitizer	
Calibration Options			single, two point, velocity & material type	
Transducer Probe Type		dual element		dual element & flaw prove up
Transducer Frequency Range			1 - 10MHz	



Transducer recognition	automatic & manual - selectable from a list	manual - selectable from a list
Data logging	<ul style="list-style-type: none"> • 16,000 with B-scan 16,000 with A/B-scan image & gauge settings • 210,000 - coating, material, min, max thickness • sequential and grid logging • Alpha numeric batch identification • OBSTRUCT indicates inaccessible locations 	<ul style="list-style-type: none"> 8,000 with A/B-scan image & gauge settings
V-path / dual path error correction	automatic	automatic
Probe zero	automatic & manual (via integrated probe disk)	manual (via probe disk)
Display	1/4 VGA (grayscale)	1/4 VGA AMOLED colour display
	62 x 45.7mm viewable area	57.6 x 43.2mm viewable area
Display Refresh Rate	25Hz	120Hz
Units (selectable)	mm or inches	
Backlight	on / off / auto	adjustable brightness
Repeatability / Stability Indicator	• •	•
Battery Type		3 x AA alkaline
Battery Life (approximate)	150 hours	50 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 CCG100B / CG100BDL / CG100ABDL / CG100ABDL+ gauge
- Couplant
- Carry Case
- User Manual
- Test Certificate
- 3 x AA Batteries
- Software (Elcometer NDT CG100BDL / CG100ABDL / CG100ABDL+ gauge only)
- Transfer Cable (Elcometer NDT CG100BDL / CG100ABDL / CG100ABDL+ gauge only)

Accessories

Cables & Adapters

TL-24030-1	T/Cable: 4' Single Lemo 00 to BNC
TL-24030-2	T/Cable: 4' Single Lemo 00 to Lemo 00
TL-24030-3	T/Cable: 4' Single Lemo 00 to Microdot
TL-24030-6	T/Cable: 4' Dual Lemo to Lemo
TL-24030-8	T/Cable: 4' Dual Lemo to Microdot Single
TL-24031	RS232 Cable (6'); DB-9 to Lemo
TL-24032	USB to Serial Adapter

Couplant

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

