Dakota NDT
an Elcometer company

Dakota CX Thickness Gauges

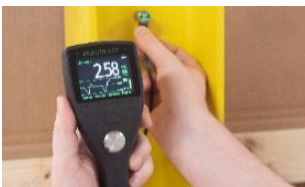## Can be used in accordance with: ASTM E 797, EN 14127, EN 15317

The Dakota CX Ultrasonic Material Thickness Gauges have all the features and functionality necessary for measuring material thickness and velocity on virtually any material for a wide range of applications.

Features

- Auto recognition, ensures correct probe is identified when transducer is changed
- Scan Mode at 16Hz, ideal for measuring a large surface area
- User selectable reading resolution; 0.1mm or 0.01mm
- Pulse Echo (PE), Echo Echo ThruPaint & Velocity (VM) measurement modes
- Hi & Lo limit indicators provide indications of problem areas
- Integrated zero disc, ensures maximum accuracy
- Stores up to 100,000 readings in up to 1,000 sequential batches
- Selectable reading rate of 4, 8, 16Hz (4, 8, 16 readings per second)

Introducing the Dakota CX Thickness Gauges

Intelligent
Users can set upper and lower limits with audible and visual pass/fail warnings. Limits can be set for individual readings or for each batch.

Accurate
The Dakota CX thickness gauges have a range of calibration options including the 1-Point calibration method. Users can also select one of 39 pre-set materials stored within the gauge or store up to three calibrations into the memory.

Versatile
Flexible & easy to use, the Dakota corrosion gauge range doesn't just measure uncoated surfaces but can also measure coated surfaces. Using Echo Echo ThruPaint Mode (EE), coatings up to 2mm are ignored.

Key Features

Wireless Connectivity
Compatible with DakMaster PC, readings can be downloaded via USB for further analysis and reporting.

Customisable
The Dakota CX Thickness Gauge range has a choice of display modes allowing the user to select the most appropriate for their needs; Readings, Selected Statistics, Bar Graph, Run Chart, B-Scan & Differential Mode.

Product Features

Features				
		Model		
Model Number	**CX2**	**CX4**	**CX6-DL**	**CX8-DL**
Easy to use menu structure in multiple languages	■	■	■	■
Tough, impact, waterproof and dust resistant equivalent to IP64	■	■	■	■
Bright colour screen; with permanent backlight	■	■	■	■
Ambient light sensor, with adjustable brightness	■	■	■	■
Scratch and solvent resistant display; 6cm TFT	■	■	■	■
Large positive feedback buttons	■	■	■	■
USB power supply; via PC	■	■	■	■
Gauge software updates via DakMaster Software	■	■	■	■
2-year gauge warranty[2]	■	■	■	■
Limits: 40 definable audible & visual pass/fail warnings	■	■	■	■
Measurement Mode				
Pulse Echo (PE)	■	■	■	■
Echo Echo ThruPaint (EE)		■	■	■
Velocity Mode (VM)			■	■
Measurement Rate				
4, 8, 16Hz		4Hz	4, 8, 16Hz[3]	4, 8, 16Hz[3]
Thickness Range [4]				
PE 0.63-500mm		■	■	■
EE 2.54 - 25.4mm		■	■	■
Measurement Units				
mm		■	■	■
m/s, inch/µs			■	■
Repeatability / Stability Indicator	■	■	■	■
Display Mode				
Reading	■		■	■
Selected statistics			■	■
Scan thickness bar graph			■	■
Run Chart			■	■
Readings and Differential				■
B-Scan cross sectional display				■
Selectable Reading Resolution				
Lo; 0.1mm, 10m/s	■	■	■	■
Hi; 0.01mm,1m/s			■	■
Statistics				
Number of readings,n; Mean average, x ; Standard deviation, σ.			■	■
Lowest reading, Lo; Highest reading, Hi			■	■
Low / high limit value				■
Reading Range Value				■
Nominal Value				■
Number of readings below the low limit				■
Number of readings above the high limit				■
Calibration Options				
Zero (using the integral zero disc)		■	■	■
1 - point		■	■	■
2 - point			■	■
Material selection; 39 preset materials		■	■	■
Factory; resets to the factory calibration		■	■	■
Velocity (speed of sound)			■	■
Known thickness value			■	■

Calibration Features

Calibration lock; with optional PIN Lock			■	■
Test calibration feature			■	■
Calibration memories: 3 programmable memories				■
Measurement outside calibration warning				■

Data Logging

Number of readings			1,500	100,000
Number of batches			1	1,000
Sequential batching			■	■
Grid batching				■
Fixed Batch Size Mode; with batch linking				■
Obstruct entry; add 'obst' into grid location				■
Delete last reading			■	■
Date & time stamp			■	■
Review, clear & delete batches			■	■
Alpha numeric batch names; user definable				■
Batch review graph				■

Data Output

USB to PC		■	■	■
Bluetooth to PC, Android & iOS devices			■	■
DakMaster software			■	■

Transducer Probe Type

Dual Element		■	■	■
Auto transducer recognition	■	■	■	■
Auto V-path correction	■	■	■	■

Technical Specifications

Part Number	Description	Certificate
CX2	Dakota CX2 Material Thickness Gauge	●
CX4	Dakota CX4 Material Thickness Gauge	●
CX6-DL	Dakota CX6-DL Material Thickness Gauge	●
CX8-DL	Dakota CX8-DL Material Thickness Gauge	●

Model Number	CX2	CX4	CX6-DL	CX8-DL
Measurement Range[1]				
Pulse Echo (PE)	0.63 - 500mm	0.63 - 500mm	0.63 - 500mm	0.63 - 500mm
Echo Echo ThruPaint (EE)		2.54 - 20.00mm	2.54 - 20.00mm	2.54 - 20.00mm
Velocity Mode (VM)		1,250-10,000m/s	1,250-10,000m/s	1,250-10,000m/s
Measurement Accuracy[2]				
Pulse Echo (PE)	±0.1mm (0.63-19.99mm)	±0.1mm (0.63-19.99mm)	±0.05mm (0.63-9.99mm)	±0.05mm (0.63-9.99mm)
	±0.5% (20.00-500.00mm)	±0.5% (20.00-500.00mm)	±0.5% (10.00-500.00mm)	±0.5% (10.00-500.00mm)
Echo Echo ThruPaint (EE)	±0.1mm (2.54-25.4mm)	±0.1mm (2.54-25.4mm)	±0.05mm (2.54-9.99mm)	±0.05mm (2.54-9.99mm)
			±0.5% (10.00-20.00mm)	±0.5% (10.00-20.00mm)
Operating Temperature	-10 to 50°C			
Power Supply	2 x AA batteries			
Battery Life[3]	Alkaline: 15 hours Lithium: 28 hours			
Gauge Weight	210g - including batteries, without transducer			
Gauge Dimensions	145 x 73 x 37mm, without transducer			

● Calibration Certificate supplied as standard.
[1] Dependent on material being measured & transducer being used.
[2] On steel.
[3] Approximate battery life, when in Continuous Reading Mode at a reading rate of 4Hz. Rechargeable batteries may differ.

Packing List

CX2	CX4	CX6-DL	CX8-DL
5MHz ¼" right angle dual element transducer (TXC5M00CP-4)	5MHz ¼" HD right angle dual element transducer (TXC5M00CP-10)	5MHz ¼" HD right angle dual element transducer (TXC5M00CP-10)	5MHz ¼" HD right angle dual element transducer (TXC5M00CP-10)
Ultrasonic Couplant	Ultrasonic Couplant	Ultrasonic Couplant	Ultrasonic Couplant
Carry pouch	Carry pouch	Plastic transit case	Plastic transit case
Screen protector	Screen protector	3 x Screen protectors	3 x Screen protectors
Wrist harness	Wrist harness	Wrist harness	Wrist harness
2 x AA batteries	2 x AA batteries	2 x AA batteries	2 x AA batteries
Operating instructions	Operating instructions	Operating instructions	Operating instructions
Test certificate	Test certificate	Calibration certificate	Calibration certificate
		DakMaster software CD & USB cable	DakMaster software CD & USB cable

Part Numbers

Dakota CX2 Material Thickness Gauge

Part Number:	CX2

Dakota CX4 Material Thickness Gauge

Part Number:	CX4

Dakota CX6-DL Material Thickness Gauge

Part Number:	CX6-DL

Dakota CX8-DL Material Thickness Gauge

Part Number:	CX8-DL