elcometer®

Batch 2

Hi — 2.3
2.0 P1
1.50
Lo — 1.2
1.0

1.5 mils

Cal Batch Stats Menu

55
45.5 35
Back

Elcometer 224
surface profile gauge

elcometer®

Elcometer 224 — Digital Surface Profile Gauge

Stores up to 150,000 readings in alpha numeric batches

Accurate, immediate and repeatable results

Tough tungsten carbide user replaceable tip

Integral & separate probe variants for flat and convex* surfaces

Auto rotating display with tap awake feature

Dust and water resistant rugged design equivalent to IP64

2.4" colour screen provides enhanced reading visibility at all angles

Ergonomic design for comfort during continuous use

Integral or separate probes measure profiles up to 500μm (20mils) on flat or curved surfaces*

Fast reading rate at 50+ readings per minute

Measures on flat and convex surfaces

Review batch data or last 20 readings in a graph format

Counted average mode stores the average value of a preset number of readings

USB and Bluetooth® data output to ElcoMaster™ 2.0 software

The Elcometer 224 provides the very latest in surface profile measuring technology for measuring profile on either flat or curved surfaces. Fast, accurate and very user friendly, the Elcometer 224 is available with or without memory and Bluetooth®.

* Patent applied for

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Designed with you in mind

User Friendly

- Large buttons ideal for gloved hands
- Easy to use menus in multiple languages
- High contrast colour LCD with auto rotate
- High and low reading limit indicators
- Factory calibrated for immediate use

Accurate

- Measurement capability to ±5%
- Can be used in accordance with National and International Standards
- Temperature stable measurements
- Statistics are calculated and displayed in real time
- Live and batch readings graph format for instant analysis

Reliability

- Repeatable and reproducible
- 2 year gauge warranty
- Supplied with fully traceable Test Certificates
- Batch & individual reading date and time stamp facility
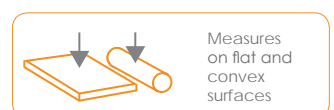
Tough

- Sealed, heavy duty and impact resistant
- Dust and waterproof equivalent to IP64
- Scratch and solvent resistant display
- Durable gauge and probe construction
- Suitable for use in harsh environments

Efficient

- Fast reading rate of 50+ per minute
- Integral and separate probe options to suit your application
- Alpha numeric batch identification
- Compatible with ElcoMaster™ 2.0 and ElcoMaster™ for Android™
- Powersave mode with tap awake

Powerful

- Tough tungsten carbide user replaceable tip - can be used for up to 20,000 readings
- USB and Bluetooth® data output
- Stores up to 150,000 readings in 2,500 batches
- Measures profiles up to 500µm (20 mils)

Measures on flat and convex surfaces

Product Features

	Model B	Model T
Fast, accurate reading rate; *50+ readings per minute*	■	■
Repeatable & reproducible measurements	■	■
Easy to use menu structure; *in 30+ languages*	■	■
Tough, impact, water & dust resistant; *equivalent to IP64*	■	■
Bright colour screen; *with permanent back light*	■	■
Scratch & solvent resistant display; *2.4" (6cm) TFT*	■	■
Large positive feedback buttons	■	■
Flat & convex surfaces*	■	■
USB power supply; *via PC*	■	■
Test certificate	■	■
2 year gauge warranty	■	■
Automatic rotating display; *0°, 90°, 180° & 270°*	■	■
Ambient light sensor; *with adjustable auto brightness*	■	■
Emergency light mode	■	■
Gauge software updates[1]; *via ElcoMaster™ 2.0 software*	■	■
Data output	■	■
USB; *to computer*	■	■
Bluetooth®: *to computer, Android™ mobile phone or tablet*		■
On screen statistics	■	■
Number of readings, η; Mean (average), $\bar{x}$; Standard deviation, σ; Highest reading, hi; Lowest reading, lo; Coefficient of variation, COV	■	■
High & low limits; *definable audible & visual alarms*		■
Number above high limit;		■
Number below low limit;		■
ElcoMaster™ 2.0 software & USB cable		■
Alarm; *daily (d), interval (i)*		d,i
Date and time stamp *for each reading*		■
Replaceable screen protectors	■	■
Protective case	■	■
Plastic transit case	□	■
Measurement range	0-500µm (20 mils)	0-500µm (20 mils)
On-screen calibration instructions; *in 30+ languages*	■	■
Number of batches		2,500
Gauge memory; *number of readings*	Last 5	150,000
Delete last reading	■[#]	■
Limits; *user definable audible & visual pass/fail warnings*		■
Gauge (g) or gauge & batch specific (gb) limits		gb
Batch types; *normal, counted average*		■
Review, clear & delete batches		■
Copy batches and calibration settings		■
Alpha-numeric batch names; *user definable on the gauge*		■
Fixed batch size mode; *with batch linking*		■
Trend graph; *last 20 readings*		■
Review batch graph		■

■ Standard   □ Optional
[1] Internet connection required   [#] Up to the last 5 readings can be deleted   * Patent applied for

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Elcometer 224   Digital Surface Profile Gauge

The Elcometer 224 is available in two different models: Model B and Model T. Each gauge provides the user with increasing functionality - from the entry level Elcometer 224 Model B, to the top of the range Elcometer 224 Model T, with memory, alpha-numeric batching and Bluetooth® communication.

Integral gauges are ideal for single handed operation as the wide footprint of the internal probe provides greater stability during measurement - allowing for consistent, repeatable and accurate results.

Standard and armoured probes are available for the separate models, providing even greater measurement flexibility. Elcometer surface profile probes are supplied with a glass zero plate, calibration test foils (nominal values 125μm (5.0mils) & 508μm (20mils) and an Elcometer Test Certificate.

STANDARDS:
ASTM D 4417-B, SANS 5772,
US Navy NSI 009-32,
US Navy PPI 63101-000

supplied with
ElcoMaster™2.0
data management software
see page 7

compatible with
ElcoMaster™
mobile app
see page 7

available with
Bluetooth®
wireless technology
see page 7

Model Options   C

Part Number		Description	Certificate
Integral Gauge	Separate Gauge		
E224C-BI	E224C-BS	Elcometer 224 Model B Digital Surface Profile Gauge	●
E224C-TI	E224C-TS	Elcometer 224 Model T Digital Surface Profile Gauge	●

Probe Range   C

Probe Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Certificate
Flat Surface: Standard	T224C500US	125mm (4.92")	25mm (1.0")	●
Flat Surface: Armoured	T224C500UARM	165mm (6.5")	25mm (1.0")	●
Convex Surface: Standard^	T224C500UX	135mm (5.31")	75mm (3.0")$^\Delta$	●
Convex Surface: Armoured^	T224C500UXARM	175mm (6.89")	75mm (3.0")$^\Delta$	●
Gauge with Integral Probe	-	185mm (7.3")	25mm (1.0")	

Technical Specification

Display information	2.4" (6cm) QVGA colour TFT display, 320 x 240 pixels
Battery type	2 x AA dry cell batteries, rechargeable batteries can also be used
Battery life	Approximately 24 hours of continuous use at 1 reading per second#
Gauge dimensions (h x w x d)	Integral: 168 x 73 x 37mm (5.61 x 2.87 x 1.46") Separate: 141 x 73 x 37mm (5.55 x 2.87 x 1.46")
Gauge weight (including batteries)	Integral: 218g (7.69oz) Separate 161g (5.68oz)
Measurement range	0-500μm (0-20mils)
Probe tip	Tungsten carbide tip 60° angle 50μm (2mil)
Operating temperature	-10 to 50°C (14 to 122°F) Storage temperature -10 to 60°C (14 to 140°F)
Accuracy & Resolution	Accuracy*: ±5% or ±5μm (±0.2mil); Resolution: 1μm (0.1mil)
Packing List†	Elcometer 224 gauge, glass zero tile†, 2 x calibration foils†, wrist harness, plastic transit case (T), protective case, screen protector, probe protection cap†, 2 x AA batteries, test certificate, operating instructions, USB cable (T) & ElcoMaster™ 2.0 software (T)

* Whichever is the greater
● Certificate supplied as standard.
$^\Delta$ Minimum pipe diameter

\# Using default settings & lithium batteries supplied, alkaline or rechargeable batteries may differ
† For separate gauges, the test foils, glass zero tile and protection cap are supplied with the separate probe.
^ Patent applied for

Total Quality Assurance

ElcoMaster™
data management software

Professional inspection reports provide a competitive advantage in today's industrial environment.

The new ElcoMaster™ 2.0 is a fast, easy to use software solution for all your reporting requirements.

Using ElcoMaster™ 2.0's wizard, connecting a gauge to download data is fast and easy

Using ElcoMaster's™ inbuilt Report Designer, readings can quickly be displayed on an image or drawing

ElcoMaster™ 2.0 allows you to download all your inspection measurements - from any Elcometer gauge

Suitable for use in Cloud Computing

Data can be stored in a simple file tree, by project and by inspection type. Data is clearly displayed in tabular format

Readings from different Elcometer gauges can be printed on the same report - and can be quickly inserted into standard report tables

ElcoMaster™ 2.0

ElcoMaster™ 2.0 gives you the power to review your data and produce professional reports quickly and easily.

Internal wizards guide you through each step, from connecting a gauge to generating a report.

Features:

- Produce and combine measurements from any Elcometer inspection gauge in one report
- Add photographs, limits & notes to your reports
- Export to Excel or other spreadsheet formats
- Print, email or generate .pdf reports
- Design your own reports and drag & drop readings or statistics onto the report
- Combine multiple batches into one report
- Communicate and link with ElcoMaster™ for Android™
- Automatic upgrade notifications inform and allow users to upgrade their Elcometer gauges & ElcoMaster™ 2.0 software in the field
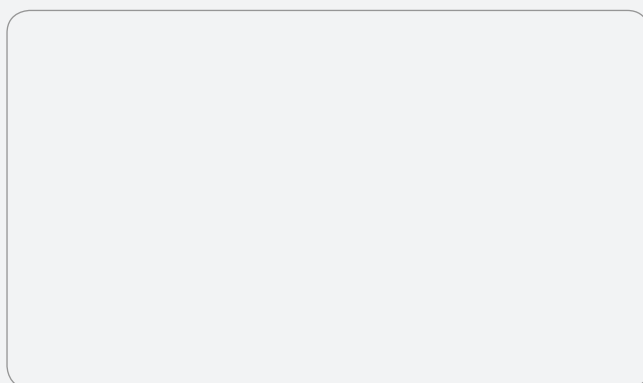
ElcoMaster™ for Android™

ElcoMaster™ for Android™ allows users to:

- Collect data via collection image templates, identifying where each reading should be taken
- Transfer live readings or batches from Elcometer Bluetooth® gauges to Android™ phones or tablet PC's
- Provides instant data analysis remotely and email key data, including readings, notes & photographs, etc. to the office from the field

For more information visit our website at elcometer.com.

Scan the QR code to download the ElcoMaster™ for Android™ Application now

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