elcometer®
inspection equipment

Elcometer 456

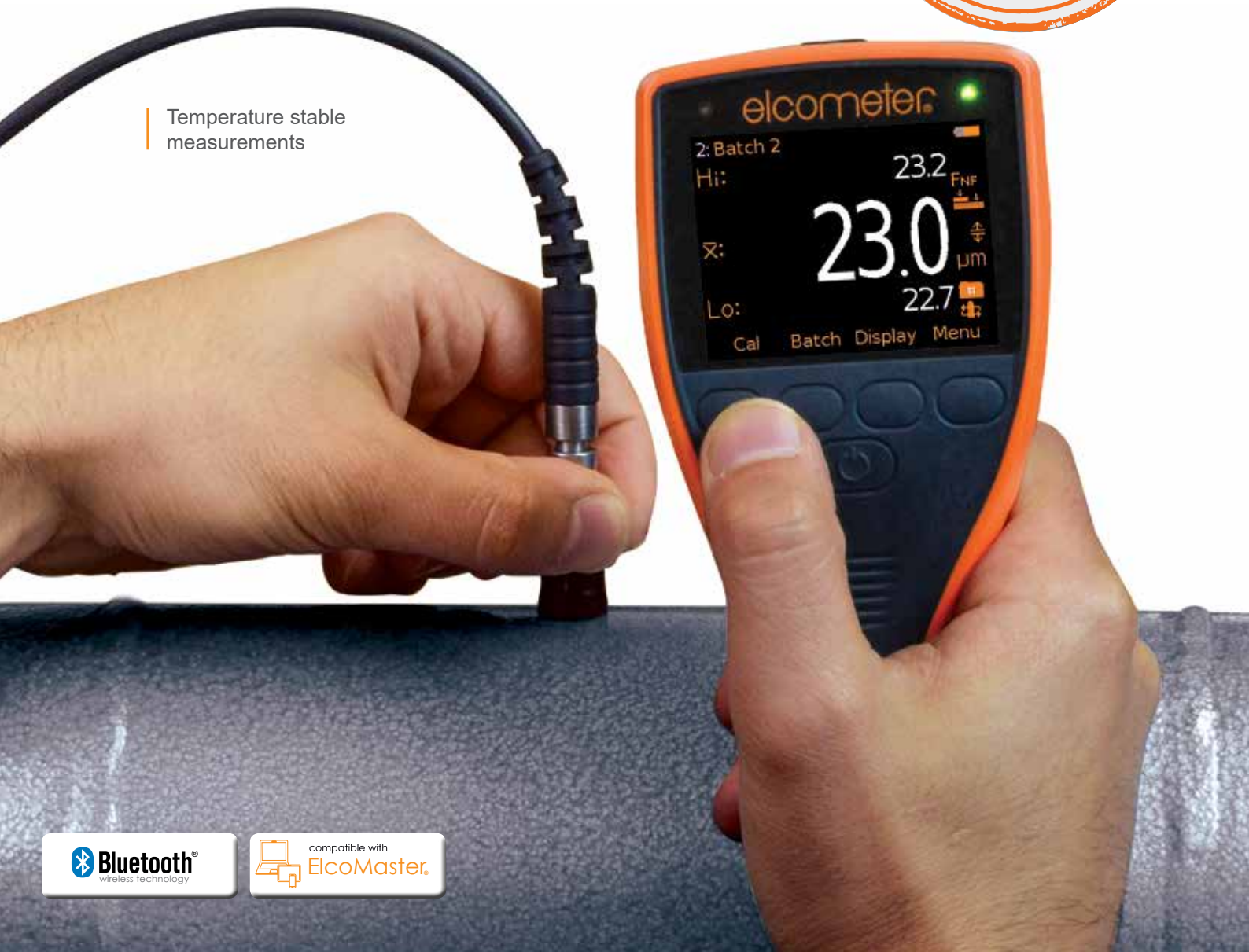
coating thickness gauge

Elcometer 456 Separate Coating Thickness Gauge

The **Elcometer 456** coating thickness gauge is available with a wide range of interchangeable probes; providing greater coating thickness measurement flexibility on metal substrates.

- Measure coatings up to 31mm (1,220mils) on metal substrates
- Easy to read, user definable display with automatic screen brightness
- Ergonomic design, ideal for continuous use
- Dust and waterproof rugged design equivalent to IP64
- Temperature stable measurements

Measure DFT · FAST · REPEATABLE · Ferrous & Non-Ferrous Substrates · ACCURATE · DURABLE



Bluetooth® wireless technology

compatible with ElcoMaster®

Separate Coating Thickness Gauge

Elcometer 456

Fast

Helping you become more efficient

70+ readings per minute and 140+ per minute with Scan Probe, multiple calibration memories and alphanumeric batch identification.

Large easy to read measurements in Metric and Imperial units

Accurate

Accurate measurements on smooth, rough, thin and curved surfaces

Measures on smooth, rough, thin and curved surfaces to ±1% in accordance with National & International Standards.

Halve the inspection time using the scan probe

Easy

Large buttons and colour screen

LCD screen with auto rotate; factory calibrated with high and low reading limit indicators in multiple languages.

View up to 8 user selectable statistics on screen

Reliable

Designed to last

Heavy duty, impact resistant and supplied with fully traceable test certificates and our 2 year gauge warranty*.

Rugged and reliable, ideal for harsh environments

Powerful

Store up to 150,000 readings in 2,500 batches

Measures up to 31mm (1,220mils) of coating on metal substrates with USB and Bluetooth® data output making it compatible with ElcoMaster® software.

For a wide range of probes to meet your specific application, see page 8

* The Elcometer 456 is supplied with a 1 year warranty against manufacturing defects. The warranty can be extended free of charge to 2 years within 60 days of purchase via www.elcometer.com.

Elcometer 456 Separate Coating Thickness Gauge

Scan and Auto Repeat Modes

Using the Scan Probe in Scan Mode

Using the Elcometer 456 in Scan Mode with the Scan Probe enables users to significantly reduce dry film thickness inspection times without affecting accuracy:

- Slide the Scan Probe over the entire surface area, as the probe is lifted off the surface the gauge displays the average coating thickness value, the highest thickness and the lowest thickness values.
- Each set of three readings (average, high and low) can be displayed on the run graph and stored into the memory.
- During each scan the Elcometer 456 displays the live thickness reading together with an analogue bar graph which graphically indicates the thickness relative to both the nominal thickness and any user-defined limits.

Using the Scan Probe in Auto Repeat Mode

When the Scan Probe is slid over the coated surface in Auto Repeat Mode*, a coating thickness reading is taken approximately every half a second. Each individual dry film thickness reading is stored into the memory.

With a reading rate in excess of 140 readings per minute, the Auto Repeat Mode can significantly speed up the dry film thickness inspection of large coated areas.

* Scan and Auto Repeat Modes require an Elcometer 456 Model T gauge with Scan Probe.

Separate Coating Thickness Gauge

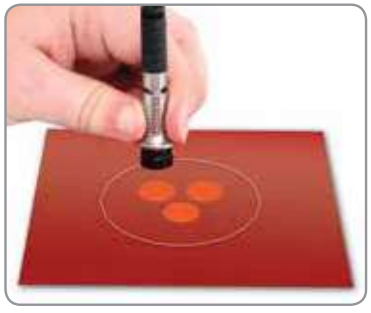
Elcometer 456

Scan Probes

The Scan Probes further enhance the speed and accuracy of field based dry film coating thickness measurement:

- Featuring a highly durable 'snap on' replaceable probe cap
- A revolutionary design which allows users to take individual readings or rapidly scan large surface areas - without damaging the probe or coating
- Uses the Elcometer 456's patented offset feature[1], ensuring that any cap wear during use[2] is incorporated within the calibration process - the gauge even informs the user when to replace the cap.
- Standard Scan Probe or larger Roller Bearing Scan Probe available
- Roller Bearing Scan Probe is ideal for large coated structures, abrasive coatings and pre-construction primers.

Counted Average and Fixed Batch Modes



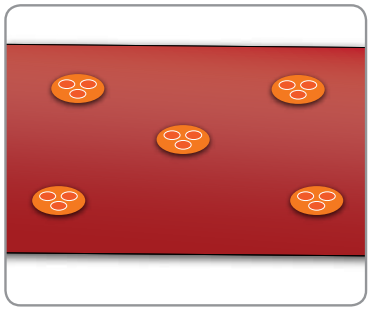
Counted Average Mode

- The Elcometer 456 Model S and Model T are supplied with the Counted Average Mode
- Once the user has defined the number of individual gauge readings to be taken within a spot measurement, the gauge stores the average of the individual gauge readings into the memory.

Fixed Batch Sizes

- The Fixed Batch Size feature within the Elcometer 456 Model T allows users to define the maximum number of readings in each batch.
- Once the maximum number of readings has been reached the gauge automatically opens up a new batch which is linked to the previous batch (name-1, name-2, etc.).

Working with Standards and Test Methods



- International Standards and test methods often describe the number of individual gauge readings to be taken in a spot measurement and/or the number of spot measurements required over a defined surface area.
- SSPC PA2 requires a minimum of three gauge readings to be taken per spot measurement and five spot measurements over $10m^2$ (~$100ft^2$).
- The Elcometer 456 Model S or Model T can be set with a counted average of three and a fixed batch size of five to meet these requirements. Each batch defines an area of measurement.
- When the Scan Probe is connected to the Elcometer 456 Model T with Auto Repeat Mode selected, SSPC PA2 (or similar test methods) can be completed more than 40% faster.

[1] Patent Number US6243661

[2] When tested on smooth surfaces probe end caps have been scanned in excess of 50km (30 miles)

Elcometer 456 Separate Coating Thickness Gauge

Product Features

■ Standard □ Optional

	Model B	Model S	Model T
Fast, accurate reading rate; *70+ readings per minute*	■	■	■
Repeatable & reproducible measurements	■	■	■
Easy to use menu structure; *in 30+ languages*	■	■	■
Tough, impact, waterproof & dust resistant; *equivalent to IP64*	■	■	■
Bright colour screen; *with permanent backlight*	■	■	■
Scratch & solvent resistant display; *2.4" (6cm) TFT*	■	■	■
Large positive feedback buttons	■	■	■
USB power supply; *via PC*	■	■	■
Test certificate	■	■	■
2 year gauge warranty[1]	■	■	■
Automatic rotating display; *0°, 90°, 180° & 270°*	■	■	■
Ambient light sensor; *with adjustable auto brightness*	■	■	■
Emergency light	■	■	■
Tap awake from sleep	■	■	■
Gauge software updates[2]; *via ElcoMaster® software*	■	■	■
Data output	■	■	■
USB; *to computer*	■	■	■
Bluetooth®; *to computer, Android™ & iOS[3] devices*		■	■
On screen statistics	■	■	■
Number of readings; *η* Mean (average); *$\bar{x}$* Standard deviation; σ Highest reading; *Hi* Lowest reading; *Lo* Coefficient of variation; *CV%,* Elcometer index value[4]; *EIV*	■	■	■
Nominal dry film thickness; *NDFT*		■	■
IMO PSPC; *%>NDFT, %>90<NDFT, 90:10 pass/fail*		■	■
High & low limits; *definable audible & visual alarms*		■	■
Number of readings above high limit;		■	■
Number of readings below low limit;		■	■
Live reading trend graph; *in Batch Mode*		■	■
ElcoMaster® software & USB cable	□	■	■
Replaceable screen protectors	□	■	■
Protective case	■	■	■
Plastic transit case	□	□	■
Separate models; *with automatic probe recognition*	■	■	■
Probe type; *Ferrous (F), Non-Ferrous (N), Dual (FNF)[5]*	F, N, FNF	F, N, FNF	F, N, FNF
Measurement range; *see page 8 for probe selection*	0-31mm 0-1,220mils	0-31mm 0-1,220mils	0-31mm 0-1,220mils
On screen calibration instructions; *in 30+ languages*	■	■	■
Multiple calibration methods	■	■	■
Factory; *resets to the factory calibration*	■	■	■
2-point; *for smooth and rough surfaces*	■	■	■
1-point; *zero calibration*	■	■	■
Zero offset[6]*; for calibration according to ISO19840*	■	■	■
Predefined calibration & measurement methods		■	■
ISO, SSPC PA2, Swedish, Australian		■	■

[1] The Elcometer 456 is supplied with a 1 year warranty against manufacturing defects. The warranty can be extended free of charge to 2 years within 60 days of purchase via www.elcometer.com.
[2] Internet connection required
[3] Visit www.elcometer.com/sdk to find out how to integrate Elcometer's MFi certified products to your App.
[4] Elcometer Index Values are used in the automotive industry to assess a coating's overall quality; USA Patent Number US7606671B2
[5] FNF Patent Number USA: 5886522
[6] Zero Offset USA Patent Number US6243661

Separate Coating Thickness Gauge

Elcometer 456

Product Features

■ Standard □ Optional

	Model B	Model S	Model T
Automatic calibration; *for rapid calibration*		■	■
Calibration memory type; *gauge (g) or gauge & batch (gb)*	g	gb	gb
Number of batches; *with unique calibrations*		1	2,500
Calibration memories; *3 user-programmable memories*			■
Measurement outside calibration warning			■
Calibration lock; *with optional PIN code unlock*	■	■	■
Delete last reading	■	■	■
Gauge memory; *number of readings*	Last 5	1,500	150,000
Individual batch calibrations; *sent to PC via ElcoMaster® software*		■	■
Limits; *user definable audible & visual pass/fail warnings*		■	■
Gauge (g) or gauge & batch specific (gb) limits		g	gb
Date and time stamp		■	■
Review, clear & delete batches		■	■
Batch types; *normal, counted average, IMO PSPC*		■	■
Navsea Mode			■
Batch review graph			■
Copy batches and calibration settings			■
Alpha-numeric batch names; *user definable on the gauge*			■
Scan & Auto Repeat Modes; *with Scan Probe connected*			■
Fixed Batch Size Mode; *with batch linking*			■

Technical Specification

Model	Model B	Model S	Model T	Certificate
Elcometer 456 Ferrous Separate	A456CFBS	A456CFSS	A456CFTS	●
Elcometer 456 Non-Ferrous Separate	A456CNBS	A456CNSS	A456CNTS	●
Elcometer 456 Dual FNF Separate	A456CFNFBS	A456CFNFSS	A456CFNFTS	●
Display Information	2.4” (6cm) QVGA colour TFT display, 320 x 240 pixels			
Battery Type	2 x AA 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)	141 x 73 x 37mm (5.55 x 2.87 x 1.46”)			
Gauge Weight (including batteries supplied)	161g (5.68oz)			
Operating Temperature	-10 to 50°C (14 to 122°F)			
Packing List	Elcometer 456 gauge, wrist harness, transit case (T), protective case (B, S, T), 1 x screen protector (S, T), 2 x AA batteries, operating instructions, USB cable (S, T), ElcoMaster® software (S, T) For separate gauge probe options see page 8			

STANDARDS:

AS 2331.1.4, AS 3894.3-B, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 5411-11, BS 5411-3, BS 5599, DIN 50981, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244 (83), ISO 1461, ISO 19840, ISO 2063, ISO 2178, ISO 2360, ISO 2808-6A, ISO 2808-6B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, JIS K 5600-1-7, NF T30-124, SS 184159, SSPC PA 2, US Navy PPI 63101-000, US Navy NSI 009-32

* Using default settings & lithium batteries, alkaline or rechargeable batteries may differ

● Certificate supplied as standard

Elcometer 456 Probe Range for Separate Coating Thickness Gauge

All **Elcometer 456 probes** are fully interchangeable and are available in a number of designs and scale ranges to meet your specific application.

Fully interchangeable and available in a number of designs and scale ranges

Supplied with a Test Certificate and a set of calibration foils

Ferrous, non-ferrous and dual FNF probes available

Ergonomic design, ideal for continuous use

Temperature stable measurements

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Choosing the correct probe for your coating thickness gauge:

Ferrous Probes (F)

- Ferrous probes measure non-magnetic coatings on ferromagnetic substrates.
- Elcometer 456 ferrous gauges accept any ferrous probe.

Non-Ferrous Probes (N)

- Non-ferrous probes measure non-conductive coatings on non-ferrous metal substrates.
- Elcometer 456 non-ferrous gauges accept any non-ferrous probe.

Dual Probes (FNF)

- Dual FNF probes measure both ferrous and non-ferrous applications with automatic substrate detection.
- Elcometer 456 FNF gauges accept all ferrous, non-ferrous and dual FNF probes.

High Temperature

- Elcometer probes have a maximum operating temperature of 80°C (176°F)*.
- Separate ferrous probes have a maximum operating temperature of 150°C (300°F)*.
- Hi-Temperature PINIP™ has a maximum operating temperature of 250°C (480°F)*.

*The stated temperature is the substrate temperature, and the duty cycle of the probe must be reduced to ensure a minimal temperature build-up within the probe.

Elcometer 456 Probe Range for Separate Coating Thickness Gauge

Choosing the correct probe for your coating thickness gauge:

Straight Probes

Standard Straight Probe

Standard probes measure coatings on both flat and curved surfaces.

Anodising Probe

Chemical resistant & washable - ideal for the anodising environment.

Mini Probe

Mini probes are ideal for harder to reach areas and edges.

Waterproof Probe

Sealed for use underwater at depth, even in diving gloves.

Soft Coating Probe

Large surface area probes are for soft materials (HVCA approved).

Thick Coatings Probe

Ideal for measuring coatings up to 31mm thick.

Scan Probes

Standard Scan Probe

Rapidly scan large surface areas without damaging the probe or the coating.

Ball Bearing Scan Probe

Clip on adaptors for large coated structures, abrasive coatings and pre-construction primers.

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Choosing the correct probe for your coating thickness gauge:

Angled Probes

Right Angle Probe

Take readings in areas with restricted clearance.

Mini Right Angle Probe

For measuring coatings on edges, narrow pipes or small surface areas.

Telescopic Probe

Extending probes for hard to reach areas.

45° Angle Probe

Measure difficult to access or complex areas.

Plug In Integral Probes (PINIP™)

PINIP™ Integral Probe

Transforms a separate gauge into an integral gauge, ideal for single handed use.

Hi-Temperature PINIP™

Measure coatings on ferrous substrates up to 250°C (480°F).

Armoured Cable Probes

Reinforced heavy duty cables reduce the risk of cable damage.

Elcometer 456 Probe Range for Separate Coating Thickness Gauge

Scale 0.5 Probe Range 0-500µm / 0-20mils

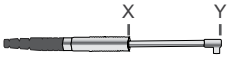
Accuracy[a]:	±1-3% or ±2.5µm	±1-3% or ±0.1mil
Range:	0-500µm	0-20mils
Resolution:	0.1µm: 0-100µm 1µm: 100-500µm	0.01mil: 0-5mils 0.1mil: 5-20mils
Certificate:	●	

See '#' on the probes table on the opposite page for comparison.

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y



d. Excluding Scan Probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Scale 0.5 Probe Range — 0-500µm / 0-20mils

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
2	45° Angle Mini Probe	300mm (11.80”)	T456CFM3R45D	18mm (0.71”)	3mm (0.12”)
3	Right Angle Mini Probe	300mm (11.80”)	T465CFM3R90D	16mm (0.63”)	3mm (0.12”)
4	Right Angle Mini Probe	150mm (5.90”)	T456CFM3R90C	16mm (0.63”)	3mm (0.12”)
5	Straight Mini Probe	150mm (5.90”)	T456CFM3---C	6mm (0.24”)	3mm (0.12”)
6	45° Angle Mini Probe	45mm (1.77”)	T456CFM3R45A	16mm (0.63”)	3mm (0.12”)
7	Right Angle Mini Probe	45mm (1.77”)	T456CFM3R90A	16mm (0.63”)	3mm (0.12”)
8	Straight Mini Probe	45mm (1.77”)	T456CFM3---A	6mm (0.24”)	3mm (0.12”)

Non-Ferrous (N) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Right Angle Mini Probe	400mm (15.70”)	T456CNM3R90E	16mm (0.63”)	4mm (0.16”)
4	Right Angle Mini Probe	150mm (5.90”)	T456CNM3R90C	16mm (0.63”)	4mm (0.16”)
5	Straight Mini Probe	150mm (5.90”)	T456CNM3---C	6mm (0.24”)	4mm (0.16”)
7	Right Angle Mini Probe	45mm (1.77”)	T456CNM3R90A	16mm (0.63”)	4mm (0.16”)
8	Straight Mini Probe	45mm (1.77”)	T456CNM3---A	6mm (0.24”)	4mm (0.16”)

Non-Ferrous - Graphite (N)

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Right Angle Mini Probe	400mm (15.70”)	T456CNMG3R90E	16mm (0.63”)	4mm (0.16”)
4	Right Angle Mini Probe	150mm (5.90”)	T456CNMG3R90C	16mm (0.63”)	4mm (0.16”)
7	Right Angle Mini Probe	45mm (1.77”)	T456CNMG3R90A	16mm (0.63”)	4mm (0.16”)

Scale FM7 Probe Range — 0.6-3.8mm / 25-150mils

Accuracy[a]:	±7.5% or ±114µm	±7.5% or ±4.5mils
Range[d]:	0.60-3.8mm	25-150mils
Resolution:	1µm: 0-1mm 10µm: 1-3.8mm	0.1mil: 0-139.3mils 1.0mil: 39.4-150mils
Certificate:	•	

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
6	45° Angle Mini Probe	45mm (1.77”)	T456CFM7R45A	20mm (0.79”)	6.5 mm (0.26”)

Elcometer 456 — Probe Range for Separate Coating Thickness Gauge

Scale 1 Probe Range — 0-1500µm / 0-60mils

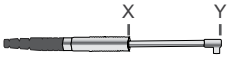
Accuracy[ae]:	±1-3% or ±2.5µm	±1-3% or ±0.1mil
Range[d]:	0-1,500µm	0-60mils
Resolution:	0.1µm: 0-100µm 1µm: 100-1,500µm	0.01mil: 0-5mils 0.1mil: 5-60mils
Certificate:	●	

See '#' on the probes table on the opposite page for comparison.

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y



d. Excluding Scan Probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CF1S	85mm (3.35”)	4mm (0.16”)
2	Scan Probe	45mm (1.77”)	T456CF1U	86mm (3.38”)	15mm (0.59”)
3	Scan Probe armoured	45mm (1.77”)	T456CF1UARM	140mm (5.51”)	15mm (0.59”)
4	90° Probe	45mm (1.77”)	T456CF1R	28mm (1.10”)	4mm (0.16”)
5	90° Mini Probe	45mm (1.77”)	T456CFM5R90A	16mm (0.63”)	4mm (0.16”)
5	90° Mini Probe sealed	45mm (1.77”)	T456CFME5R90A	16mm (0.63”)	4mm (0.16”)
5	90° Mini Probe sealed, 2m cable	45mm (1.77”)	T456CFME5R90A-2	16mm (0.63”)	4mm (0.16”)
6	PINIP™ Integral Probe		T456CF1P	170mm (6.69”)	4mm (0.16”)
8	Straight Probe sealed	45mm (1.77”)	T456CF1E	85mm (3.35”)	4mm (0.16”)

Non-Ferrous (N) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CN1S	85mm (3.35”)	4mm (0.16”)
4	90°Probe	45mm (1.77”)	T456CN1R	28mm (1.10”)	4mm (0.16”)
5	Mini 90°Probe	45mm (1.77”)	T456CNM5R90C	16mm (0.63”)	4mm (0.16”)
5	Mini 90°Probe	400mm (15.7”)	T456CNM5R90E	16mm (0.63”)	4mm (0.16”)
6	PINIP™ Integral Probe		T456CN1P	180mm (7.09”)	4mm (0.16”)
7	Anodiser Probe	45mm (1.77”)	T456CN1AS	100mm (3.94”)	4mm (0.16”)

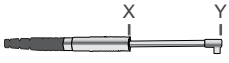
Ferrous & Non-Ferrous (FNF) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CFNF1S	88mm (3.46”)	F: 4mm (0.16”) N: 6mm (0.24”)
2	Scan Probe	45mm (1.77”)	T456CFNF1U	89mm (3.50”)	15mm (0.59”)
4	Right Angle Probe	45mm (1.77”)	T456CFNF1R	38mm (1.50”)	F: 4mm (0.16”) N: 6mm (0.24”)
6	PINIP™ Integral Probe		T456CFNF1P	180mm (7.09”)	F: 4mm (0.16”) N: 6mm (0.24”)
8	Straight Probe armoured cable	45mm (1.77”)	T456CFNF1ARM	185mm (7.28")	F: 4mm (0.16") N: 6mm (0.24")

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y
d. Excluding Scan probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty



Elcometer 456 Probe Range for Separate Coating Thickness Gauge

Scale 2 Probe Range 0-5mm / 0-200mils

Accuracy[a]:	±1-3% or ±20µm	±1-3% or ±1.0mil
Range[d]:	0-5mm	0-200mils
Resolution:	1µm: 0-1mm 10µm: 1-5mm	0.1mil: 0-50mils 1.0mil: 50-200mils
Certificate:	●	

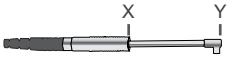
See '#' on the probes table on the opposite page for comparison.

1 2 3 4 5 6 7 8

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y



d. Excluding Scan Probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CF2S	89mm (3.50”)	8mm (0.32”)
2	Straight Probe armoured cable	45mm (1.77”)	T456CF2ARM	138mm (5.43”)	8mm (0.32”)
3	Scan Probe	45mm (1.77”)	T456CF2U	90mm (3.54”)	15mm (0.59”)
4	90° Probe	45mm (1.77”)	T456CF2R	32mm (1.26”)	8mm (0.32”)
5	Telescopic Probe	56-122cm (22-48”)	T456CF2T	36mm (1.42”)	8mm (0.32”)
6	Soft Coating Probe	45mm (1.77”)	T456CF2B	89mm (3.50”)	8mm (0.32”)
7	Waterproof Probe 1m (3’) cable	45mm (1.77”)	T456CF2SW	138mm (5.43”)	8mm (0.32”)
7	Waterproof Probe 5m (15’) cable	45mm (1.77”)	T456CF2SW-5	138mm (5.43”)	8mm (0.32”)
7	Waterproof Probe 15m (45’) cable	45mm (1.77”)	T456CF2SW-15	138mm (5.43”)	8mm (0.32”)
7	Waterproof Probe 30m (98’) cable	45mm (1.77”)	T456CF2SW-30	138mm (5.43”)	8mm (0.32”)
7	Waterproof Probe 50m (164’) cable	45mm (1.77”)	T456CF2SW-50	138mm (5.43”)	8mm (0.32”)
7	Waterproof Probe 75m (250’) cable	45mm (1.77”)	T456CF2SW-75	138mm (5.43”)	8mm (0.32”)
8	PINIP™ Integral Probe		T456CF2P	174mm (6.85”)	8mm (0.32”)
8	Hi-Temperature PINIP™		T456CF2PHT	174mm (6.85”)	8mm (0.32”)

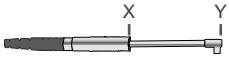
Non-Ferrous (N) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CN2S	88mm (3.46”)	14mm (0.55”)
8	PINIP™ Integral Probe		T456CN2P	185mm (7.28”)	14mm (0.55”)

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y
d. Excluding Scan probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty



Elcometer 456 — Probe Range for Separate Coating Thickness Gauge

Scale 3 Probe Range — 0-13mm / 0-500mils

Accuracy[a]:	±1-3% or ±50µm	±1-3% or ±2.0mils
Range[d]:	0-13mm	0-500mils
Resolution:	1µm: 0-2mm 10µm: 2-13mm	0.1mil: 0-100mils 1.0mil: 100-500mils
Certificate:	●	

See '#' on the probes table on the opposite page for comparison.

1

2

3

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CF3S	102mm (4.02”)	14mm (0.55”)
2	PINIP™ Integral Probe		T456CF3P	184mm (7.24”)	14mm (0.55”)

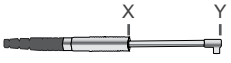
Non-Ferrous (N) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CN3S	170mm (6.69”)	35mm (1.38”)

a. Whichever is the greater
b. FNF (F): FNF probe in F Mode FNF (N): FNF probe in N Mode

● Certificate supplied as standard.

c. Probe length is measured from X to Y



d. Excluding Scan Probe end cap
e. Scan Probe calibrated using a sample of the uncoated substrate
Elcometer 456 probes are covered by a 1 year warranty

Probe Range for Separate Coating Thickness Gauge

Elcometer 456

Scale 6 Probe Range — F: 0-25mm / 0-980mils — N: 0-30mm / 0-1,200mils

Accuracy[a]:	±1-3% or ±100µm	±1-3% or ±4.0mils
Range[d]:	F: 0-25mm N: 0-30mm	F: 0-980mils N: 0-1,200mils
Resolution:	10µm: 0-2mm 100µm: 2-30mm	1mil: 0-100mils 10mils: 100-1,200mils
Certificate:	•	

See '#' on the probes table below for comparison.

1

2

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CF6S	150mm (5.90”)	51 x 51mm² (2 x 2 inch²)
2	Straight Probe armoured cable	45mm (1.77”)	T456CF6ARM	190mm (7.48”)	51 x 51mm² (2 x 2 inch²)

Non-Ferrous (N) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
1	Straight Probe	45mm (1.77”)	T456CN6S	160mm (6.30”)	58mm (2.29”)
2	Straight Probe armoured cable	45mm (1.77”)	T456CN6ARM	200mm (7.87")	58mm (2.29”)

Scale 7 Probe Range — 0-31mm / 0-1,220mils

Accuracy[a]:	±1-3% or ±100µm	±1-3% or ±4.0mils
Range[d]:	0-31mm	0-1220mils
Resolution:	10µm: 0-2mm 100µm: 2-31mm	1.0mil: 0-100mils 10mils:100-1220mils
Certificate:	•	

Ferrous (F) Probes

#	Description[c]	Probe Length	Part Number	Minimum Headroom	Minimum Sample Diameter[b]
2	Straight Probe armoured cable	45mm (1.77”)	T456CF7ARM	200mm (7.87”)	55 x 55mm² (2.17 x 2.17 inch²)

Elcometer 456 & 355 Probe Placement Jig

The **Elcometer Probe Placement Jig** is the ideal accessory for measuring coatings on small or complex components when the highest levels of repeatability and accuracy are required.

Increases the gauge's repeatability and reproducibility

Housings to suit other probes are available as optional accessories

Compatible with Elcometer 456 probes and Elcometer 355 probes

Ideal for small and large components alike

Probe Placement Jig

Elcometer 456 & 355

The Elcometer Probe Placement Jig is the ideal accessory for measuring coatings on small or complex components when the highest levels of repeatability and accuracy are required.

The Probe Placement Jig makes the gauge score highly in repeatability and reproducibility studies by placing the probe accurately, at the same angle and in the same place on the substrate each time.

Ideal for small and large components alike, the Probe Placement Jig is supplied with a probe housing and a component holder to suit straight Scale 1 or Scale 2 Elcometer 456 probes and standard F1, F2, F4, F5 and N1 Elcometer 355 probes. Housings to suit other probes are available as optional accessories.

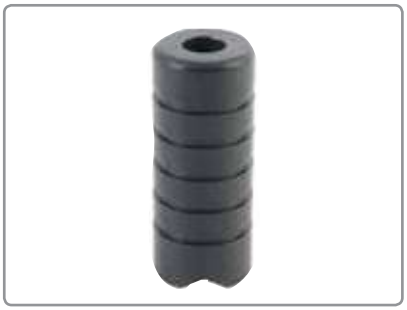
Technical Specification

Part Number	Description
T95012880	Probe Placement Jig
Each Probe Placement jig is supplied with a probe housing and a component holder to suit straight Scale 1 or Scale 2 Elcometer 456 probes and standard F1, F2, F4, F5 and N1 Elcometer 355 probes.	
T95013028	Component Hand Vice
T95012888	Cable Release Assembly - ideal for remote measurements
T95015961	Dual FNF Probe Housing Adaptor
T95016896	Mini Probe Housing Adaptor

For a wide range of probes to meet your specific application,
see page 8

Elcometer 456

Accessories



Jumbo Hand Grip
Ideal for precision placement for the most accurate results on flat and curved surfaces. Place the probe inside the Jumbo Hand Grip and take measurements - ideal when wearing gloves. Suitable for any Elcometer 456 Scale 1 or Scale 2 straight probes.

F and N Probes	Dual FNF Probes	
T9997766-	T99913225	Jumbo Hand Grip

V-Probe Adaptor
Ideal for precision placement for the most accurate results on medium and large diameter curved surfaces such as pipes and cylinders. Suitable for any Elcometer 456 Scale 1 or Scale 2 straight probes.

F and N Probes	Dual FNF Probes	
T9997381-	T99913133	V-Probe Adaptor

Scan Probe Replacement End Caps
Highly durable - when tested on smooth surfaces probe end caps have been scanned in excess of 50km (30 miles) - each end cap snaps on to the end of the Scan probe significantly enhancing the lifetime of the probe.

F & Dual FNF Probes	
T456C23956	Replacement Scan Probe End Caps (3 per pack)

Accessories

Elcometer 456

Data Output Controller

Enables data to be output from the Elcometer 456 via RS232 ports for the purposes of controlling automated production lines.

The Elcometer Software Support Team or users can produce their own customised software to utilise the data output from the Elcometer 456 gauge in order to remotely trigger pass/fail criteria for their processes.

Part Number	Description
T99925387	Elcometer Data Output Controller
Operating Temperature	0 to 50°C (32°F to 122°F)
Data Input	USB
Data Output	One RS232 serial output via 9 way D-Type connector
Power Supply	Requires 5V 1A(min) DC supply via mini USB. External plug-in mains adaptor with interchangeable UK/EU/US/AUS pins supplied.
Packing List	Elcometer Data Output Controller, USB to RS232 converter lead, power supply (with 4 sets of interchangeable pins)

Using the Data Output Controller

The Elcometer 456 coating thickness gauge probe is attached to a robot arm, to automatically measure dry film thickness on the production line.

The Elcometer 456 connects to the data output controller to transfer live dry film thickness readings via RS232 ports to the automated production line.

Customised software for the data output controller can be produced, using high/low limits to trigger a pass or fail on the automated production line, helping to improve quality.

For a full range of calibration standards and foil sets see page 28

Elcometer 456 Integral Coating Thickness Gauge

The **Elcometer 456** coating thickness gauge is available with an **integral probe**; ideal for single handed operation for consistent, repeatable and accurate results.

Easy to read, user definable display with automatic screen brightness

Reading rate of 70+ per minute

Ergonomic design, ideal for continuous use

Measure coatings up to 13mm (500mils) on metal substrates

Stores up to 150,000 readings in alphanumeric batches

Scratch and solvent resistant screen

Bigfoot™ integral probe

Bluetooth® wireless technology

compatible with ElcoMaster®

Integral Coating Thickness Gauge

Elcometer 456

Easy

Calibrated and ready for immediate use

Easy to use menus, large buttons and colour LCD screen with auto rotate; factory calibrated and ready to use, straight from the box.

Large easy to read measurements in Metric and Imperial units

Accurate

Accurate measurements on smooth, rough, thin and curved surfaces

With a thickness measurement capability to ±1% and increased reading resolution, the Elcometer 456 produces accurate, temperature stable measurements every time.

Bigfoot™ integral probe for accurate measurements

Reliable

Peace of mind

Repeatable and reproducible and available with a 2 year[1] manufacturer's warranty; giving you peace of mind.

Easy to use and minimum set up required

Rugged

Durable and suitable for use in harsh environments

Suitable for use in harsh environments, the Elcometer 456 is sealed, heavy duty and impact resistant with dust and waterproof equivalent to IP64.

Powerful

Store up to 150,000 readings in 2,500 batches

Measures up to 13mm (500mils) of coating on metal substrates with USB and Bluetooth® data output making it compatible with ElcoMaster® software.

USB and Bluetooth® data output to iPhone[2] or Android™ devices

STANDARDS:

AS 2331.1.4, AS 3894.3-B, AS/NZS 1580.108.1, ASTM B 499, ASTM D 1186-B, ASTM D 1400, ASTM D 7091, ASTM E 376, ASTM G 12, BS 3900-C5-6B, BS 3900-C5-6A, BS 5411-11, BS 5411-3, BS 5599, DIN 50981, DIN 50984, ECCA T1, EN 13523-1, IMO MSC.215(82), IMO MSC.244 (83), ISO 1461, ISO 19840, ISO 2063, ISO 2178, ISO 2360, ISO 2808-6A, ISO 2808-6B, ISO 2808-7C, ISO 2808-7D, ISO 2808-12, JIS K 5600-1-7, NF T30-124, SS 184159, SSPC PA 2, US Navy PPI 63101-000, US Navy NSI 009-32

[1] The Elcometer 456 is supplied with a 1 year warranty against manufacturing defects. The warranty can be extended free of charge to 2 years within 60 days of purchase via www.elcometer.com. [2] Compatible with iPod, iPhone and iPad.

Elcometer 456 Integral Coating Thickness Gauge for Metal Substrates

Product Features	Model B	Model S	Model T
		■ Standard	□ Optional
Fast, accurate reading rate; *70+ readings per minute*	■	■	■
Repeatable & reproducible measurements	■	■	■
Easy to use menu structure; *in 30+ languages*	■	■	■
Tough, impact, waterproof & dust resistant; *equivalent to IP64*	■	■	■
Bright colour screen; *with permanent backlight*	■	■	■
Scratch & solvent resistant display; *2.4" (6cm) TFT*	■	■	■
Large positive feedback buttons	■	■	■
USB power supply; *via PC*	■	■	■
Test certificate	■	■	■
2 year gauge warranty[1]	■	■	■
Automatic rotating display; *0°, 90°, 180° & 270°*	■	■	■
Ambient light sensor; *with adjustable auto brightness*	■	■	■
Emergency light	■	■	■
Tap awake from sleep	■	■	■
Gauge software updates[2]; *via ElcoMaster® software*	■	■	■
Data output	■	■	■
USB; *to computer*	■	■	■
Bluetooth®; *to computer, Android™ & iOS[3] devices*		■	■
On screen statistics	■	■	■
Number of readings; *η,* Mean (average); *$\bar{x}$,* Standard deviation; *σ* Highest reading; *Hi,* Lowest reading; *Lo,* Coefficient of variation; *CV%,* Elcometer index value[4]; *EIV*	■	■	■
Nominal dry film thickness; *NDFT*		■	■
IMO PSPC; *%>NDFT, %>90<NDFT, 90:10 pass/fail*		■	■
High & low limits; *definable audible & visual alarms*		■	■
Number of readings above high limit;		■	■
Number of readings below low limit;		■	■
Live reading trend graph; *in Batch Mode*		■	■
ElcoMaster® software & USB cable	□	■	■
Replaceable screen protectors	□	■	■
Protective case	■	■	■
Plastic transit case	□	□	■
Integral models; *with automatic gauge switch on*	■	■	■
Probe type; *Ferrous (F), Non-Ferrous (N), Dual (FNF)[5]*	F, N, FNF	F, N, FNF	F, N, FNF
Measurement range	0-13mm 0-500mils	0-1500µm 0-60mils	0-1500µm 0-60mils
On screen calibration instructions; *in 30+ languages*			
Multiple calibration methods	■	■	■
Factory; *resets to the factory calibration*	■	■	■
2-point; *for smooth and rough surfaces*	■	■	■
1-point; *zero calibration*	■	■	■
Zero offset[6]*; for calibration according to ISO19840*		■	■
Predefined calibration & measurement methods		■	■
ISO, SSPC PA2, Swedish, Australian		■	■

[1] The Elcometer 456 is supplied with a 1 year warranty against manufacturing defects. The warranty can be extended free of charge to 2 years within 60 days of purchase via www.elcometer.com. Elcometer 456 probes are covered by a 1 year warranty. [2] Internet connection required

[3] Visit www.elcometer.com/sdk to find out how to integrate Elcometer's MFi certified products to your App.

[4] Elcometer Index Values are used in the automotive industry to assess a coating's overall quality; USA Patent Number US7606671B2

[5] FNF Patent Number USA: 5886522 [6] Zero Offset USA Patent Number US6243661

Integral Coating Thickness Gauge for Metal Substrates

Elcometer 456

Product Features

■ Standard □ Optional

	Model B	Model S	Model T
Automatic calibration; *for rapid calibration*		■	■
Calibration memory type; *gauge (g) or gauge & batch (gb)*	g	gb	gb
Number of batches; *with unique calibrations*		1	2,500
Calibration memories; *3 user-programmable memories*			■
Measurement outside calibration warning			■
Calibration lock; *with optional PIN code unlock*	■	■	■
Delete last reading	■	■	■
Gauge memory; *number of readings*	Last 5	1,500	150,000
Individual batch calibrations; *sent to PC via ElcoMaster® software*		■	■
Limits; *user definable audible & visual pass/fail warnings*		■	■
Gauge (g) or gauge & batch specific (gb) limits		g	gb
Date and time stamp		■	■
Review, clear & delete batches		■	■
Batch types; *normal, counted average, IMO PSPC*		■	■
Navsea Mode			■
Batch review graph			■
Copy batches and calibration settings			■
Alpha-numeric batch names; *user definable on the gauge*			■
Scan & Auto Repeat Modes; *with Scan probe connected*			■
Fixed Batch Size Mode; *with batch linking*			■

Technical Specification

Scale 1

Range: 0-1,500µm (0-60mils) Accuracy[7]: ±1-3% or ±2.5µm (±0.1mil)

Resolution: 0.1µm: 0-100µm; 1µm: 100-1,500µm (0.01mil: 0-5mils; 0.1mil: 5-60mils)

Model	Model B	Model S	Model T	Certificate
Elcometer 456 Ferrous Integral	A456CFBI1	A456CFSI1	A456CFTI1	●
Elcometer 456 Non-Ferrous Integral	A456CNBI1	See separate gauges with N2 PINIP™ Probe	See separate gauges with N2 PINIP™ Probe	●
Elcometer 456 Dual FNF Integral	A456CFNFBI1	A456CFNFSI1	A456CFNFTI1	●

Scale 2

Range: 0-5mm (0-200mils) Accuracy[7]: ±1-3% or ±20µm (±1.0mil)

Resolution: 1µm: 0-1mm; 10µm: 1-5mm (0.1mil: 0-50mils; 1mil: 50-200mils)

Model	Model B	Model S	Model T	Certificate
Elcometer 456 Ferrous Integral	A456CFBI2	See separate gauges with F2 PINIP™ Probe	See separate gauges with F2 PINIP™ Probe	●

For higher resolution & accuracy on thin coatings Scale 2 gauges can be switched to the Scale 1 mode measurement performance

Scale 3

Range: 0-13mm (0-500mils) Accuracy[7]: ±1-3% or ±50µm (±2.0mils)

Resolution: 1µm: 0-2mm; 10µm: 2-13mm (0.1mil: 0-100mils; 1mil: 100-500mils)

Model	Model B	Model S	Model T	Certificate
Elcometer 456 Ferrous Integral	A456CFBI3	See separate gauges with F3 PINIP™ Probe	See separate gauges with F3 PINIP™ Probe	●

Display Information	2.4” (6cm) QVGA colour TFT display, 320 x 240 pixels
Battery Type	2 x AA batteries, rechargeable batteries can also be used
Battery Life	approximately 24 hours of continuous use at 1 reading per second[8]
Gauge Dimensions (h x w x d)	141 x 73 x 37mm (5.55 x 2.87 x 1.46”)
Gauge Weight (including batteries supplied)	156g (5.50oz)
Operating Temperature	-10 to 50°C (14 to 122°F)
Packing List	Elcometer 456 gauge, calibration foils, wrist harness, transit case (T), protective case (B, S, T), 1 x screen protectors (S, T), 2 x AA batteries, operating instructions, USB cable (S, T), ElcoMaster® software (S, T)

[7] Whichever is the greater [8] Using default settings & lithium batteries, alkaline or rechargeable batteries may differ ● Certificate supplied as standard.

Elcometer 990

Individual Precision Foils

Calibration foils or 'shims' are the most convenient way of creating a coating thickness standard on the substrate material, surface finish or form. This is the ideal method for adjusting the calibration of the coating thickness gauge to ensure the greatest possible accuracy.

Technical Specification

Part Number	Colour	Dimensions		Values[1]		Certificate[2]
T99022570-1A	Silver	50 x 25mm	(1.97 x 0.98")	12.5µm	(0.5mil)	○
T99022570-2A	Purple	50 x 25mm	(1.97 x 0.98")	25µm	(1.0mil)	○
T99022570-2B	Purple	75 x 50mm	(2.95 x 1.97")	25µm	(1.0mil)	○
T99022570-4A	Dark Blue	50 x 25mm	(1.97 x 0.98")	50µm	(2.0mils)	○
T99022570-4B	Dark Blue	75 x 50mm	(2.95 x 1.97")	50µm	(2.0mils)	○
T99022570-6A	Green	50 x 25mm	(1.97 x 0.98")	75µm	(3.0mils)	○
T99022570-7A	Brown	50 x 25mm	(1.97 x 0.98")	125µm	(5.0mils)	○
T99022570-7B	Brown	75 x 50mm	(2.95 x 1.97")	125µm	(5.0mils)	○
T99022570-9A	Peacock Blue	50 x 25mm	(1.97 x 0.98")	175µm	(7.0mils)	○
T99022570-10A	White	50 x 25mm	(1.97 x 0.98")	250µm	(10mils)	○
T99022570-10B	White	75 x 50mm	(2.95 x 1.97")	250µm	(10mils)	○
T99022570-12A	Black	50 x 25mm	(1.97 x 0.98")	500µm	(20mils)	○
T99022570-12B	Black	75 x 50mm	(2.95 x 1.97")	500µm	(20mils)	○
T99022570-14A	Grey-Blue	50 x 25mm	(1.97 x 0.98")	1,000µm	(40mils)	○
T99022570-14B	Grey-Blue	75 x 50mm	(2.95 x 1.97")	1,000µm	(40mils)	○
T99022570-16A	Clear	50 x 25mm	(1.97 x 0.98")	1mm	(40mils)	○
T99022570-17A	Off White	50 x 25mm	(1.97 x 0.98")	1,500µm	(60mils)	○
T99022570-18A	Clear	50 x 25mm	(1.97 x 0.98")	2mm	(80mils)	○
T99022570-18B	Clear	75 x 50mm	(2.95 x 1.97")	2mm	(80mils)	○
T99022570-20A	Clear	50 x 25mm	(1.97 x 0.98")	3mm	(120mils)	○
T99022570-21A	Clear	50 x 25mm	(1.97 x 0.98")	4mm	(160mils)	○
T99022570-23A	Clear	50 x 25mm	(1.97 x 0.98")	8mm	(310mils)	○
T99022570-24B	Clear	75 x 50mm	(2.95 x 1.97")	9.5mm	(370mils)	○
T99022570-25B	Grey	75 x 50mm	(2.95 x 1.97")	15mm	(590mils)	○
T99022570-26B	Grey	75 x 50mm	(2.95 x 1.97")	25mm	(980mils)	○
T45618978-2[3]	Grey	n/a		1,500µm	(60mils)	○
T45618978-[3]	Grey	n/a		5,000µm	(197mils)	○

[1] Actual foil values may vary, but are accurately labelled
[2] A Certificate can be supplied with any combination of up to 8 Foils
[3] For use with the high temperature PINIP™ probes only due to the potential high temperature of the sample. Foils supplied in a cap which fits over the PINIP™ probe.
○ Optional Calibration Certificate available.

Calibration Foils Sets

Elcometer 990

The Elcometer 990 Calibration Foils are ideal for use in the laboratory, on the production line or on site. Calibration foils or 'shims' are the most convenient way of creating a coating thickness standard on the substrate material, surface finish or form. This is the ideal method for adjusting the calibration of the coating thickness gauge to ensure the greatest possible accuracy.

Features:

- Metric and Imperial values displayed on each foil
- Available individually or in foil sets
- Precision foils with ±1% accuracy
- Each foil has a unique serial number for traceability
- Available in thicknesses from 12.5µm to 20mm (0.5 to 790mils)

Technical Specification

Description	Foil Values (µm)	Foil Values (mils)	Un-Certified	Certified
Scale 1 Foil Set; 0-1500µm (0-60mils)	25, 50, 125, 250, 500, 1,000	1.0, 2.0, 5.0, 10, 20, 40	T99022255-1	T99022255-1C
Scale 2 Foil Set; 0-5mm (0-200mils)	25, 50, 125, 250, 500, 1,000, 2,000, 3,000	1.0, 2.0, 5.0, 10, 20, 40, 80, 120	T99022255-2	T99022255-2C
Scale 3 Foil Set; 0-13mm (0-500mils)	250, 500, 1,000, 2,000, 4,000, 8,000	10, 20, 40, 80, 160, 315	T99022255-3	T99022255-3C
Scale 4 Foil Set; 0-250µm (0-10mils)	12.5, 25, 50, 125, 250	0.5, 1.0, 2.0, 5.0, 10	T99022255-4	T99022255-4C
Scale 5 Foil Set; 0-500µm (0-20mils)	12.5, 25, 50, 125, 250, 500	0.5, 1.0, 2.0, 5.0, 10, 20	T99022255-5	T99022255-5C
Scale 6 Foil Set; 0-30mm (0-1200mils)	1,000, 2,000, 5,000, 9,500, 15mm, 25mm	40, 80, 200, 375, 590, 980	T99022255-6	T99022255-6C
Scale M3 Foil Set; 0-500µm (0-20mils)	12.5, 25, 50, 125, 250, 500	0.5, 1.0, 2.0, 5.0, 10, 20	T99022255-7	T99022255-7C
Scale 2B Foil Set*; 0-5mm (0-200mils)	25, 50, 125, 250, 500, 1,000, 2,000, 2,000	1.0, 2.0, 5.0, 10, 20, 40, 80, 80	T99022255-8	T99022255-8C

Using Calibration Foils

Each foil has been independently measured at the centre point.

For the greatest accuracy, place the probe in the centre of the foil.

Up to 4 foils can be combined to create a wider range of thickness values.

* The Scale 2B foil sets are designed for soft coating probes and have a larger foil surface area.

Elcometer 990

Zero Test Plates

Elcometer provides a range of Zero Test Plates. When used in conjunction with a set of foils, Test Plates are ideal to test a coating thickness gauge's functionality and calibration, ideal for when it may be difficult or impractical to obtain an uncoated substrate.

For a list of standards, foils and foil sets, (see page 28).

Technical Specification

Description	Size	Size	Ferrous	Non-Ferrous	Certificate
Precision Zero Test Plate (±1%)	50.8 x 25.4mm	2.0 x 1.0”	T9994910-	T9994911-	
Zero Test Plate	76.2 x 50.8mm	3.0 x 2.0”	T9999529-	T9999530-	
Zero Test Plate (large)	76.2 x 101.6mm	3.0 x 4.0”	T9994054-	T9994055-	○
Steel (F) Checkpiece*	50.8 x 88.9mm	2.0 x 3.5”	T99916925	-	
Aluminium (N) Checkpiece*	50.8 x 88.9mm	2.0 x 3.5”	-	T99916901	

* To be used only with the Elcometer 311 or Elcometer 415

○ Optional Calibration Certificate available.

elcometer®

FAST · PROFESSIONAL · ACCURATE · REPORTS

DATA MANAGEMENT SOFTWARE

Generate professional reports at the click of a button and email to your client seconds after you have finished inspecting.

With the **ElcoMaster® Software App** your office is now wherever you are.

elcometer.com

ENGLAND
Elcometer Limited
Tel: +44 (0)161 371 6000
Fax: +44 (0)161 371 6010
sales@elcometer.com
www.elcometer.com

FRANCE
Elcometer Sarl
Tel: +33 (0)2 38 86 33 44
Fax: +33 (0)2 38 91 37 66
fr_info@elcometer.com
www.elcometer.fr

GERMANY
Elcometer Instruments GmbH
AALEN
Tel: +49 (0) 7361 52806 0
Fax: +49 (0) 7361 52806 77
LEER
Tel: +49 (0) 7361 528 06 60
Fax: +49 (0) 7361 528 06 68

de_info@elcometer.com
www.elcometer.de

THE NETHERLANDS
Elcometer B.V.
Tel: +31 (0)30 259 1818
Fax: +31 (0)30 210 6666
nl_info@elcometer.com
www.elcometer.nl

JAPAN
Elcometer KK
Tel: +81-(0)3-6869-0770
Fax: +81-(0)3-6433-1220
jp_info@elcometer.com
www.elcometer.co.jp

REPUBLIC OF SINGAPORE
Elcometer (Asia) Pte Ltd
Tel: +65 6462 2822
Fax: +65 6462 2860
asia@elcometer.com
www.elcometer.com

UNITED ARAB EMIRATES
EL Inspection & Blasting Equipment LLC
Tel: +971 4 295 0191
+971 4 280 3526
Fax: +971 4 295 0192
uae_sales@elcometer.com
www.elcometer.ae

USA
MICHIGAN
Elcometer Inc
Tel: +1 248 650 0500
Toll Free: 800 521 0635
Fax: +1 248 650 0501
inc@elcometer.com
www.elcometer.com

TEXAS
Elcometer of Houston
Tel: +1 713 450 0631
Toll Free: 800 521 0635
Fax: +1 713 450 0632
inc@elcometer.com
www.elcometer.com

تامین کننده تجهیزات بازرسی فنی
کنترل کیفیت در ایـــران
کاوشکـــــــاران
www.IR-QC.com
تلفـــن: ۸۸۶۸۵۲۹۷ - ۰۲۱

elcometer®
www.elcometer.com

elcometer.be • elcometer.fr • elcometer.de • elcometer.nl
elcometer.jp • elcometer.ae • elcometer.com.sg

Elcometer 456 Models S & T: Made for iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5, iPhone 4s, iPhone 4, iPad Air 2, iPad mini 3, iPad Air, iPad mini 2, iPad (3rd and 4th generation), iPad mini, iPad 2, and iPod touch (4th and 5th generation). "Made for iPod," "Made for iPhone," and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. iPad, iPhone, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a trademark of Apple Inc., registered in the U.S. and other countries. Suitable for mobile devices running Android™ software version 2.1 and upwards. Android™ and Google Play are trademarks of Google Inc. Elcometer and ElcoMaster are registered trademarks of Elcometer Limited. All other trademarks are acknowledged.

Due to our policy of continuous improvement, Elcometer Limited reserves the right to change specifications without notice.

© Elcometer Limited, 2019. All rights reserved. No part of this document may be reproduced, transmitted, stored (in a retrieval system or otherwise), or translated into any language, in any form, or by any means, without the prior written permission of Elcometer Limited.