Elcometer 456 Separate Coating Thickness Gauge with *Bluetooth*®†

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Can be used in accordance with:

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

The Elcometer 456 Separate Gauge is the most versatile gauge for the measurement of a wide range of coatings on metal substrates. The probes are fully interchangeable; any ferrous gauge accepts any ferrous probe, any non-ferrous gauge accepts any non-ferrous probe and FNF models will accept all Elcometer 456 probes. Using the unique plug-in integral probe (PINIP™) the user has all the versatility of a separate and integral probe in a single gauge.

Standard and Top models are supplied with Bluetooth®† wireless technology for easy and simple connectivity to a PC or Bluetooth®† enabled PDA‡. RS232 data output is available on all models using an optional gauge-to-PC cable.

- **Easy to use gauge**
  Intuitive menus in multiple languages enables use straight from the box.
- **Portable**
  Rugged and ergonomic, each gauge is designed to withstand the harshest environments.
- **Bluetooth®† data output**
  The Elcometer 456 Standard and Top models now come with Bluetooth®† wireless technology. Instant transmission to your PC or hand held data device is now possible - no more cables required. RS232 data output is available on all models.
- **Memory**
  Memory versions are capable of storing up to 50,000 readings in up to 999 batches.
- **PSPC Ready**
  Provides the user with continuous monitoring of the 90/10 rule against the NDFT value, including pass/fail confirmation, as required by IMO PSPC for dedicated seawater ballast tanks.

Dry Film Thickness
Dry Film Thickness is probably the most critical measurement in the coatings industry. It provides vital information as to the expected life of the substrate, the product's fitness for purpose, its appearance and ensures compliance with a host of International Standards.

Quality systems, such as those described in ISO 9000, ISO 17025 and Guide 25, require that gauges be properly controlled, logged and in calibration. Increasingly, users are specifying that the readings taken by gauges are traceable to National Standards.

Dry Film Coating Thickness is a critical measurement in all industry sectors and can be categorised as follows:

Digital: The most widely used as it is generally the most accurate and can be used to measure the coating on almost any substrate, whether ferrous or non-ferrous.

Mechanical: Still widely used, particularly in areas where no electrical instruments are permitted or high temperatures prevail.

Destructive: Used primarily in multi-coat procedures and non-metallic substrates.

† Standard & Top Gauges only

‡ PDAs require Windows Mobile 5.0 or Windows Mobile Professional or later

FEATURES	BASIC	STANDARD	TOP
Fast, accurate reading rate (>60 readings per minute)	•	•	•
Auto substrate recognition on FNF models	•	•	•
Switchable Metric / Imperial units (mm, µm, mils, inches)	•	•	•
Backlight (User selectable, ideal for dark environments)	•	•	•
Multi Language Menus	•	•	•
Backlight (User selectable, brightness adjustment and timeout)	•	•	•
Intuitive menu driven display with adjustable text size	•	•	•
Maximised gauge reading display	•	•	•
Languages (Menus in over 25 languages)	•	•	•
User definable limits (Green/Red LEDs for Pass/Fail inspection)		•	•
User definable on-screen statistics (number of readings, mean, standard deviation, coefficient of variation, minimum, maximum)	•	•	•
On-screen calibration instructions	•	•	•
Calibration options for			
Smooth, rough and special substrates	•	•	•
Single and 2-point calibration	•	•	•
Zero Offset*	•	•	•
90/10 rule with autocheck feature - to meet IMO MSC.215 (82) and MSC.216(82) Performance Standard for Protective Coatings	•	•	•
Predefined calibration routines to meet ISO, SSPC, Swedish & Australian Standards		•	•
Memory			
Memory size		250 readings in one batch	50,000 readings in up to 999 batches
Individual reading mode		•	•
Counted average mode		•	•
Individual readings review		•	•
Date and time stamp with clock and alarm functions (Readings can be stamped including the last calibration date and time)			•
Batch calibrations (Each batch can be programmed with a different calibration)			•
Batch calibration cloning (Copy calibrations between batches)			•
Data Output / Data Output Modes			
RS232	•	•	•
Bluetooth®		•	•
Immediate Output (Each reading is transmitted as it is taken)	•	•	•
Batch Output (Send data by batches on command)		•	•
ElcoMaster™ Software and ElcoMaster™ Mobile Software		•	•

* Zero Offset, USA Patent Number 6243661. Zero Offset subtracts a user defined value from the reading. Ideal for ISO19840

TECHNICAL SPECIFICATION	
Measurement Speed	Greater than 60 readings per minute
Display	STN Graphics (LCD), 128 x 64 pixels; 19.8 x 39.6mm (0.78” x 4.56”)
Battery Type	2 x AAA (LR03). Rechargeable batteries can be used
Battery Life[+]	30 - 40 hours continuous use with alkaline batteries
Minimum Substrate Thickness	Ferrous: 0.3mm (12mils) Non-Ferrous: 0.1mm (4mils) unless special calibration adjustment is made
Operating Temperature	0°C - 50°C (32°F - 120°F)
Dimensions	128 x 68 x 28mm (5.0 x 2.7 x 1.1”)
Weight (including batteries)	130g (4.58oz)

[+] With Bluetooth® disabled

PART NUMBER	BASIC	STANDARD (with Bluetooth®)	TOP (with Bluetooth®)
Ferrous Separate	A456FBS	A456FSS	A456FTS
Non-Ferrous Separate	A456NBS	A456NSS	A456NTS
Dual FNF Separate	A456FNFBS	A456FNFSS	A456FNFTS
Packing List	Elcometer 456 Separate Gauge, carry pouch, wrist harness, 2 x LR03 batteries, ElcoMaster™ and ElcoMaster™ Mobile Software (Standard and Top models only) and operating instructions.		
Probes	A variety of probes and scale ranges is available for the Elcometer 456 Separate gauge. Probes are supplied complete with an appropriate set of calibration foils.		

SPARES & ACCESSORIES	
DESCRIPTION	**PART NUMBER**
Gauge-to-PC (RS232) Cable	T99916217
RS232 to USB Cable Adaptor	T99916716
Gauge-to-PC (USB) Cable Kit	T99916217A
USB Bluetooth® Transmitter/Receiver for PC	T99920130
Jumbo Hand Grip - F and N Probes	T9997766-
Jumbo Hand Grip - FNF Probe	T99913225
V-Probe Adaptor - F and N Probes	T9997381-
V-Probe Adaptor - FNF Probe	T99913133
Probe Placement Jig	T95012880

Elcometer 456 Standard Probes (F, N and FNF)

Available in Straight, Right Angle or Telescopic options and are suitable for most coating thickness requirements. Probe cables are also available in 5m (16.4ft) and 15m (49.2ft) lengths for the F1S and F1R probes. Telescopic probes extend from 410mm (16") to 1100mm (43"). Waterproof probes are also available.

Elcometer 456 Miniature Probes (F and N)

Ideal for taking measurements in hard to reach places, on small surface areas and on concrete reinforcement bars. Miniature probes are available in Straight, Right Angled, and 45° options with either 45mm (1.77") or 150mm (5.90") probe lengths.

Elcometer 456 PINIP™ Probes (F, N and FNF)

The Plug-In Integral Probe (PINIP™) has been designed to screw into the base of any Separate Elcometer 456 gauge to transform it into an integral unit for single handed operation. Its Bigfoot™ probe gives greater stability on large surface areas.

Elcometer 456 FERROUS Probes

FERROUS PROBE SPECIFICATIONS	
Max Operating Temperature	150ºC (300°F); PINIP™ 80ºC (176ºF); High Temperature PINIP™ 250ºC (480ºF)
Storage Temperature	-10ºC to 60ºC (14ºF to 140ºF)
Minimum Substrate Thickness	0.3mm (12mils)

Probe Type	Part Number	Measuring Range	Accuracy	Resolution	Convex Surface Diameter	Concave Surface Radius	Headroom	Minimum Sample Diameter
Standard F1 S	T456F1S	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16")	25mm (0.98")	85mm (3.35")	4mm (0.16")
Standard F1 2 S	T456F12S Set as F1	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16")	25mm (0.98")	85mm (3.35")	4mm (0.16")
	Set as F2	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16")	25mm (0.98")	89mm (3.5")	8mm (0.32")
Standard F1 RA	T456F1R	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16")	25mm (0.98")	28mm (1.10")	4mm (0.16")

Probe Type	Part Number	Measuring Range	Accuracy	Resolution	Convex Surface Diameter	Concave Surface Radius	Headroom	Minimum Sample Diameter
Standard F1 2 RA	T456F12R Set as F1	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	25mm (0.98”)	28mm (1.10”)	4mm (0.16”)
	Set as F2	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16”)	25mm (0.98”)	32mm (1.26”)	8mm (0.32”)
Standard F1 T	T456F1T	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	25mm (0.98”)	32mm (1.26”)	4mm (0.16”)
Standard F2 T	T456F2T	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16”)	25mm (0.98”)	36mm (1.42”)	8mm (0.32”)
Standard F3 S	T456F3S	0-13mm (0-500mils)	±1-3% or ±0.05mm (±2.0mils)	1µm up to 2mm; 10µm 2-13mm (0.1mil to 100mils; 1mil 100-500mils)	15mm (0.59”)	40mm (1.57”)	102mm (4.02”)	14mm (0.55”)
Standard F6 S	T456F6S	0-25mm (0-980mils)	±1-3% or ±0.1mm (±2.0mils)	10µm up to 2mm; 100µm 2-25mm (1mil to 100mils; 10mils 100-980mils)	35mm (1.38”)	170mm (6.70”)	150mm (5.9”)	51mm (2.0”)
PINIP™ F1	T456F1P	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	60mm (2.36”)	155mm (6.09”)	4mm (0.16”)
PINIP™ F1 2	T456F12P Set as F1	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	60mm (2.36”)	159mm (6.25”)	4mm (0.16”)
	Set as F2	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16”)	60mm (2.36”)	159mm (6.25”)	8mm (0.32”)
PINIP™ F1 2 Hi Temp	T456F12PHT Set as F1	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	60mm (2.36”)	155mm (6.09”)	4mm (0.16”)
	Set as F2	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16”)	60mm (2.36”)	159mm (6.25”)	8mm (0.32”)
PINIP™ F3	T456F3P	0-13mm (0-500mils)	±1-3% or ±0.05mm (±2mils)	1µm up to 2mm; 10µm 2-13mm (0.1mil to 100mils; 1mil 100-500mils)	15mm (0.59”)	45mm (1.77”)	169mm (6.65”)	14mm (0.55”)
Mini Straight 45mm (1.77”)	T456FM3---A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	6mm (0.24”)	3mm (0.12”)
Mini Straight 150mm (5.90”)	T456FM3---C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	6mm (0.24”)	3mm (0.12”)

Probe Type	Part Number	Measuring Range	Accuracy	Resolution	Convex Surface Diameter	Concave Surface Radius	Headroom	Minimum Sample Diameter
Mini 45º 45mm (1.77”)	T456FM3R45A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	18mm (0.71”)	3mm (0.12”)
Mini 45º 150mm (5.90”)	T456FM3R45C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	18mm (0.71”)	3mm (0.12”)
Mini 90º 45mm (1.77”)	T456FM3R90A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	16mm (0.63”)	3mm (0.12”)
Mini 90º 45mm (1.77”)	T456FM5R90A	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	3mm (0.12”)	6.5mm (0.26”)	16mm (0.63”)	4mm (0.16”)
Mini 90º 150mm (5.90”)	T456FM3R90C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	1.5mm (0.06”)	6.5mm (0.26”)	16mm (0.63”)	3mm (0.12”)
W/proof[a] F1 S	T456F1SW T456F1SW-5 T456F1SW-15 (1, 5 & 15m cable lengths)	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	40mm (1.60”)	130mm (5.12”)	4mm (0.16”)
W/proof[a] F1 2 S	T456F12SW T456F12SW-5 T456F12SW-15 Set as F1	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	40mm (1.60”)	130mm (5.12”)	4mm (0.16”)
	Set as F2 (1, 5 & 15m cable lengths)	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	0.1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	4mm (0.16”)	40mm (1.60”)	130mm (5.12”)	8mm (0.32”)
W/proof[a] F3 S	T456F3SW T456F3SW-5 T456F3SW-15 (1, 5 & 15m cable lengths)	0-13mm (0-500mils)	±1-3% or ±0.05mm (±2mils)	1µm up to 2mm; 10µm 2-13mm (0.1mil to 100mils; 1mil 100-500mils)	15mm (0.6”)	40mm (1.60”)	130mm (5.12”)	14mm (0.55”)

F1 2 Probe Patents GB 2367135, US 6762603

S = Straight Probe , RA = Right Angle Probe, T = Telescopic Probe

[a] Although the waterproof probes and cables are waterproof to a rating of IP68, the gauge should remain above the water at all times.

Elcometer 456 NON-FERROUS Probes

NON-FERROUS PROBE SPECIFICATIONS	
Max Operating Temperature	150ºC (300°F); PINIP™ 80ºC (176ºF)
Storage Temperature	-10ºC to 60ºC (14ºF to 140ºF)
Minimum Substrate Thickness	0.1mm (4mils)

Probe Type	Part Number	Measuring Range	Accuracy	Resolution	Convex Surface Diameter	Concave Surface Radius	Headroom	Minimum Sample Diameter
Standard N1 S	T456N1S	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	35mm (1.38”)	25mm (0.98”)	85mm (3.35”)	6mm (0.24”)
Standard N1 RA	T456N1R	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	35mm (1.38”)	25mm (0.98”)	28mm (1.10”)	6mm (0.24”)
Standard N1 A	T456N1AS	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	35mm (1.38”)	25mm (0.98”)	85mm (3.35”)	6mm (0.24”)
Standard N2 S	T456N2S	0-5mm (0-200mils)	±1-3% or ±0.02mm (±1.0mil)	1µm up to 1mm; 10µm 1-5mm (0.1mil up to 50mils; 1mil 50-200mils)	100mm (3.94”)	150mm (5.90”)	85mm (3.35”)	14mm (0.55”)
Standard N6 S	T456N6S	0-30mm (0-1200mils)	±1-3% or ±0.05mm (±2.0mils)	10µm up to 2mm; 100µm 2-30mm (1mil up to 100mils; 10mils 100- 200mils)	-	400mm (15.8”)	160mm (6.3”)	58mm (2.3”)
PINIP™ N1	T456N1P	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	35mm (1.38”)	50mm (1.97”)	155mm (6.09”)	6mm (0.24”)
Mini Straight 45mm (1.77”)	T456NM3---A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	6mm (0.24”)	4mm (0.16”)
Mini Straight 150mm (5.90”)	T456NM3---C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	6mm (0.24”)	4mm (0.16”)
Mini 45º 45mm (1.77”)	T456NM3R45A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	18mm (0.71”)	4mm (0.16”)
Mini 45º 150mm (5.90”)	T456NM3R45C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	18mm (0.71”)	4mm (0.16”)
Mini 90º 45mm (1.77”)	T456NM3R90A	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	16mm (0.63”)	4mm (0.16”)
Mini 90º 150mm (5.90”)	T456NM3R90C	0-500µm (0-20mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-500µm (0.01mil up to 5mils; 0.1mil 5-20mils)	3mm (0.12”)	25mm (0.98”)	16mm (0.63”)	4mm (0.16”)

S = Straight Probe , RA = Right Angle Probe, T = Telescopic Probe, A = Anodising Probe

Elcometer 456 Dual FERROUS / NON-FERROUS Probes

FNF PROBE SPECIFICATIONS	
Max Operating Temperature	150ºC (300°F); PINIP™ 80ºC (176ºF)
Storage Temperature	-10ºC to 60ºC (14ºF to 140ºF)
Minimum Substrate Thickness	Ferrous: 0.3mm (12mils); Non-Ferrous: 0.1mm (4mils)

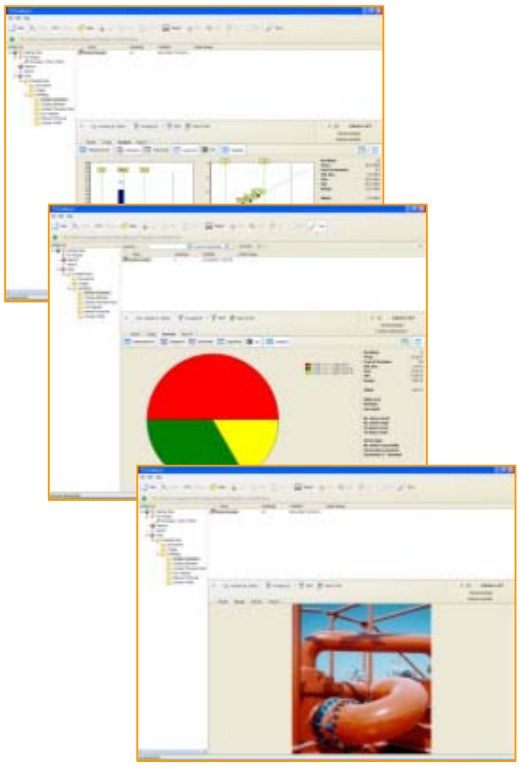
Probe Type	Part Number	Measuring Range	Accuracy	Resolution	Convex Surface Diameter	Concave Surface Radius	Headroom	Minimum Sample Diameter
Standard FNF 1S	**T456FNF1S** N Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	38mm (1.50”)	25mm (0.98”)	88mm (3.46”)	8mm (0.32”)
	F Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	25mm (0.98”)	88mm (3.46”)	4mm (0.16”)
Standard FNF 1RA	**T456FNF1R** N Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	38mm (1.50”)	25mm (0.98”)	34mm (1.34”)	8mm (0.32”)
	F Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	25mm (0.98”)	34mm (1.34”)	4mm (0.16”)
PINIP™ FNF1	**T456FNF1P** N Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	38mm (1.50”)	55mm (2.17”)	156mm (6.15”)	8mm (0.32”)
	F Mode	0-1500µm (0-60mils)	±1-3% or ±2.5µm (±0.1mil)	0.1µm up to 100µm; 1µm 100-1500µm (0.01mil up to 5mils; 0.1mil 5-60mils)	4mm (0.16”)	55mm (2.17”)	156mm (6.15”)	4mm (0.16”)

FNF Probe Patents GB 2306009, US 5886522

S = Straight Probe , RA = Right Angle Probe, T = Telescopic Probe, A = Anodising Probe

ElcoMaster™ Data Management Software

Supplied free of charge with Elcometer 456† gauges ElcoMaster™ makes it easy to collate and use the data recorded. Whether the data is to be used for analysis, to create professional reports for distribution, print reports or to archive for future use, ElcoMaster™ can help. With inbuilt report templates and easy access to all data, images and other associated files, ElcoMaster™ makes managing data simple.



The software has been designed to be familiar and intuitive to any PC user. When the gauge is connected to the PC, individual readings can be sent directly into the software for real time analysis or simply 'drag and drop' a batch from the gauge to the software.

You can store all of your associated job or inspection files, health and safety reports etc. within ElcoMaster™ one programme holds all of your inspection information in one place. Data can also be transferred directly from the gauge to a PDA or mobile phone for instant reporting in the field, using ElcoMaster™ Mobile**.

Viewing data and producing standard reports is achievable in just a few clicks. Fully customised reports can be produced quickly by using the ElcoMaster™ Report Designer.

In addition to the readings and charts, you can also assign a digital photograph or drawing to an individual batch of data, allowing you to visually display the inspection area in your reports. Values can be stored on templates as can averages and statistics in certain zones, e.g. car doors. Batches can be combined for immediate comparison of data from various areas of the job site.

ElcoMaster™ features include:

- Create professional reports in seconds.
- Export reports to spreadsheets, text files or save as PDF or JPEG files.
- Copy and paste reports into other documents.
- Reports can be combined in order to clearly compare different batches.
- E-mail reports directly from ElcoMaster™ or ElcoMaster™ Mobile** for ultimate flexibility.
- Assign batch identification tags.
- Batches can be renamed to clearly identify the area inspected or job name.
- Combine batches to compare readings or link batches together from different gauges into one comprehensive inspection file.
- 'Find' feature quickly locates a specific file or batch.
- Supports gauges with Bluetooth® wireless technology.
- The wide range of standard reports includes; Individual measurements, Statistics, Histograms, Individual line or bar charts, Log normal, Pie charts.
- Fully customise reports using the ElcoMaster™ Report Designer tool.
- Include company graphics and logos in every report.

ElcoMaster™ is the ultimate digital job file software solution. It allows users to store all their readings for coatings including dry film thickness, adhesion, cleanliness, climate, surface profile etc. and links to many Elcometer product groups. This ensures full details of the entire coatings process are easy to compare and monitor, resulting in less waste, better accuracy and lower costs.

† Standard & Top Gauges only
** ElcoMaster™ Mobile compatible with Windows Mobile 5 or Windows Mobile 6 Professional or later.

Related Products

Elcometer 456

Elcometer 456 Integral Coating Thickness Gauges with Bluetooth®

The Elcometer 456 Integral Gauge with integrated V-groove, is ideal for single handed operation. The wide footprint of the Bigfoot™ probe provides greater stability when taking readings on flat and curved surfaces.

Calibration Foils

Calibration Foils, Coated Standards and Zero Test Plates

Formal quality systems such as those described in ISO 9000 and Guide 25 require that gauges be properly controlled, logged and in calibration. Increasingly, users are specifying that the readings taken by gauges are traceable to National Standards. There are three types of coating thickness standards available from Elcometer: coated standards, foils and zero test plates.

Elcometer Inspection Kits

Elcometer Inspection Kits

Site inspection requires a range of portable testing equipment. In order to make these products easily available and transportable, Elcometer have developed a range of inspection kits. All the gauges are conveniently stored in a hard plastic protective carrying case and are supplied with full operating instructions.

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