

# Elcometer 456 Dry Film Thickness Gauge Probe Options














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

**Ferrous coating thickness gauge probes** measure non-magnetic coatings on ferro-magnetic substrates. Elcometer 456 coating thickness ferrous gauges accept any ferrous probe.

**Non-ferrous coating thickness gauge probes** measure non-conductive coatings on non-ferrous metal substrates and Elcometer 456 non-ferrous gauges accept any non-ferrous probe.

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

	<p><b>Standard Straight Probes</b> Standard probes measure coatings on both flat and curved surfaces</p>
	<p><b>Mini Probes</b> Mini probes are ideal for harder to reach areas and edges</p>
	<p><b>Right Angle Probes</b> Right Angle Probes are designed for taking coating thickness readings where access is restricted</p>
	<p><b>Plug-in Probes</b> Plug-in probes convert a separate coating thickness gauge into an integral gauge</p>
	<p><b>Telescopic Probes</b> Telescopic Probes extends right angle probes for out of reach areas</p>
	<p><b>Scan Probes</b> Scan Probes allows users to take individual measurement or scan large surface areas without damaging the probes - fitted with replaceable probe caps</p>
	<p><b>Waterproof Probes</b> Waterproof Probes are sealed for use underwater at depth</p>
	<p><b>High Temperature Probes</b> High Temperature Probes for use on hot coated materials up to 250°C</p>
	<p><b>Anodising Probes</b> Anodising Probes are chemical resistant washable probes - ideal for the anodising environment</p>
	<p><b>Armoured Cable Probes</b> Armoured Cable Probes with metal reinforced heavy duty cables, reducing the risk of cable damage</p>
	<p><b>Soft Coating Probes</b> Soft Coating Probes have large surface area probes for soft reach materials (HVCA approved)</p>

**Specialist Probes**

Specialist Probes are designed for measuring coating thickness on specialist substrates such as graphite or electroplated components



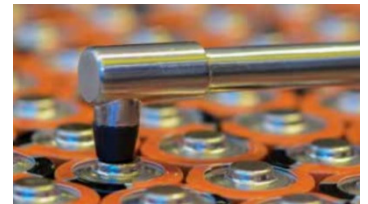
Elcometer probes have a maximum operating temperature of 80°C with the exception of separate ferrous probes 150°C and Hi-Temperature PINIP's 250°C. The stated temperature is the substrate temperature, and the duty cycle of the probe must be reduced to ensure a minimal temperature build-up within the probe.

All Elcometer coating thickness gauge probes are supplied with a Test Certificate and a set of calibration foils appropriate to the scale range of the probe.

**Technical Specifications**

**Scale 0.5: Range: 0-500µm**

Accuracy:	±1-3% or ±2.5µm
Range:	0-500µm
Resolution:	0.1µm: 0-100µm 1µm: 100-500µm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Mini Probe - Straight 45mm long	8 T456CFM3---A	6mm	3mm	1.9mm	6.5mm
Mini Probe - 90° 45mm long	7 T456CFM3R90A	Headroom:16mm Width:7mm	3mm	1.9mm	6.5mm
Mini Probe - 45° 45mm long	6 T456CFM3R45A	Headroom:18mm Width:7mm	3mm	1.9mm	6.5mm
Mini Probe - Straight 150mm long	5 T456CFM3---C	6mm	3mm	1.9mm	6.5mm
Mini Probe - 90° 150mm long	4 T456CFM3R90C	Headroom:16mm Width:7mm	3mm	1.9mm	6.5mm
Mini Probe - 90° 300mm long	3 T456CFM3R90D	Headroom:16mm Width:7mm	3mm	1.9mm	6.5mm
Mini Probe - 45° 300mm long	2 T456CFM3R45D	Headroom:18mm Width:7mm	3mm	1.9mm	6.5mm

**Non-Ferrous (N)**

Mini Probe - Straight 45mm long	8	T456CNM3---A	6mm	4mm	6mm	8.5mm
Mini Probe - 90° 45mm long	7	T456CNM3R90A	Headroom:16mm Width:7mm	4mm	6mm	8.5mm
Mini Probe - Straight 150mm long	5	T456CNM3---C	6mm	4mm	6mm	8.5mm
Mini Probe - 90° 150mm long	4	T456CNM3R90C	Headroom:16mm Width:7mm	4mm	6mm	8.5mm
Mini Probe - 90° 400mm long	1	T456CNM3R90E	Headroom:16mm Width:7mm	4mm	6mm	8.5mm

**Non-Ferrous - Graphite (N)**

Mini Probe - 90° Graphite 45mm long	7	T456CNMG3R90A	Headroom:16mm Width:7mm	4mm	6mm	8.5mm
Mini Probe - 90° Graphite 150mm long	4	T456CNMG3R90C	Headroom:16mm Width:7mm	4mm	6mm	8.5mm
Mini Probe - 90° Graphite 400mm long	1	T456CNMG3R90E	Headroom:16mm Width:7mm	4mm	6mm	8.5mm

**Scale FM7: Range: 0.6-3.8mm**

Accuracy:	±7.5% or ±114µm
Range:	0.60-3.8mm
Resolution:	1µm: 0-1mm 10µm: 1-3.8mm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b> Mini Probe - 45° 45mm long	T456CFM7R45A	20mm	6.5 mm	-	-

**Scale 1: Range: 0-1500µm**

Accuracy:	±1-3% or ±2.5µm
Ranged:	0-1500µm
Resolution:	0.1µm: 0-100µm 1µm: 100-1500µm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Straight Probe	1 T456CF1S	85mm	4mm	4mm	25mm
Straight Probe, sealed	8 T456CF1E	85mm	4mm	4mm	25mm
Scan Probe	2 T456CF1U	86mm	15mm	Flat Surface	
Scan Probe, Armoured	3 T456CF1UARM	140mm	15mm	Flat Surface	
Right Angle Probe	4 T456CF1R	28mm	4mm	4mm	25mm
Mini Probe - 90° 45mm long	5 T456CFM5R90A	Headroom:16mm Width:7mm	4mm	3mm	6.5mm
Mini Probe - 90° 45mm long, sealed	5 T456CFME5R90A	Headroom:16mm Width:7mm	4mm	3mm	6.5mm
Mini Probe - 90° 45mm long, 2m cable, sealed	5 T456CFME5R90A-2	Headroom:16mm Width:7mm	4mm	3mm	6.5mm
PINIP™ Integral Probe	6 T456CF1P	170mm	4mm	4mm	60mm
<b>Non-Ferrous (N)</b>					
Straight Probe	1 T456CN1S	85mm	4mm	10mm	10mm
Right Angle Probe	4 T456CN1R	28mm	4mm	10mm	14mm
Mini Probe - 90° 45mm long	5 T456CNM5R90A	Headroom:16mm Width:7mm	4mm	10mm	8.5mm
Mini Probe - 90° 150mm long	5 T456CNM5R90C	Headroom:16mm Width:7mm	4mm	10mm	8.5mm
Mini Probe - 90° 400mm long	5 T456CNM5R90E	Headroom:16mm Width:7mm	4mm	10mm	8.5mm
Anodiser Probe	7 T456CN1AS	100mm	4mm	10mm	14mm
PINIP™ Integral Probe	6 T456CN1P	180mm	4mm	10mm	50mm
<b>Ferrous &amp; Non-Ferrous (FNF)</b>					
Straight Probe	1 T456CFNF1S	88mm	F: 4mm N: 6mm	F: 4mm N: 26mm	12.5mm
Straight Probe, armoured cable	8 T456CFNF1ARM	185mm	F: 4mm N: 6mm	F: 4mm N: 26mm	12.5mm
Scan Probe	2 T456CFNF1U	89mm	15mm	Flat Surface	Flat Surface
Right Angle Probe	4 T456CFNF1R	38mm	F: 4mm N: 6mm	F: 4mm N: 26mm	12.5mm
PINIP™ Integral Probe	6 T456CFNF1P	180mm	F: 4mm N: 6mm	F: 4mm N: 26mm	65mm

**Scale 2: Range: 0-5mm**

Accuracy:	±1-3% or ±20µm
Ranged:	0-5mm
Resolution:	1µm: 0-1mm 10µm: 1-5mm
Certificate:	•





Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Straight Probe	1	T456CF2S	89mm	8mm	4mm 25mm
Scan Probe	3	T456CF2U	90mm	15mm	Flat Surface
Right Angle Probe	4	T456CF2R	32mm	8mm	4mm 25mm
Armoured Probe	2	T456CF2ARM	138mm	8mm	4mm 25mm
Telescopic Probe - 56 -122cm long	5	T456CF2T	36mm	8mm	4mm 25mm
Soft Coating Probe	6	T456CF2B	89mm	8mm	Flat Surface
Waterproof Probe, 1m cable	7	T456CF2SW	138mm	8mm	4mm 40mm
Waterproof Probe, 5m cable	7	T456CF2SW-5	138mm	8mm	4mm 40mm
Waterproof Probe, 15m cable	7	T456CF2SW-15	138mm	8mm	4mm 40mm
Waterproof Probe, 30m cable	7	T456CF2SW-30	138mm	8mm	4mm 40mm
Waterproof Probe, 50m cable	7	T456CF2SW-50	138mm	8mm	4mm 40mm
Waterproof Probe, 75m cable	7	T456CF2SW-75	138mm	8mm	4mm 40mm
PINIP™ Integral Probe	8	T456CF2P	174mm	8mm	4mm 60mm
Hi-Temperature PINIP™ Probe-250°C	8	T456CF2PHT	174mm	8mm	4mm 60mm
<b>Non-Ferrous (N)</b>					
Straight Probe		T456CN2S	88mm	14mm	100mm 150mm
PINIP™ Integral Probe		T456CN2P	185mm	14mm	100mm 150mm

**Scale 3: Range: 0-13mm**

Accuracy:	±1-3% or ±20µm
Ranged:	0-5mm
Resolution:	1µm: 0-1mm 10µm: 1-5mm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Straight Probe	1	T456CF3S	102mm	14mm	15mm 40mm
PINIP™ Integral Probe	2	T456CF3P	184mm	14mm	15mm 45mm
<b>Non-Ferrous (N)</b>					
Straight Probe	3	T456CN3S	170mm	35mm	Flat Surface

**Scale 6: Range: F: 0-25mm: N: 0-30mm**

Accuracy:	±1-3% or ±100µm
Range:	F: 0-25mm N: 0-30mm
Resolution:	10µm: 0-2mm 100µm: 2-30mm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Straight Probe	1 T456CF6S	150mm	51x51mm <sup>2</sup>	35mm	170mm
Straight Probe, armoured cable	2 T456CF6ARM	190mm	51x51mm <sup>2</sup>	35mm	170mm

**Scale 7: Range: 0-31mm**

Accuracy:	±1-3% or ±100µm
Range:	0-31mm
Resolution:	10µm: 0-2mm 100µm: 2-31mm
Certificate:	•



Description	Part Number	Minimum Headroom	Minimum Sample Diameter	Minimum Convex Surface Diameter	Minimum Concave Surface Radius
<b>Ferrous (F)</b>					
Straight Probe, armoured cable	T456CF7ARM	200mm	55x55mm <sup>2</sup>	40mm	170mm

