



elcometer[®]
NDT

CG10 & CG20

Corrosion Thickness Gauges

www.elcometer.com

CG10 & CG20

Thickness Gauges

The CG10 and CG20 are fixed velocity gauges making them affordable precision tools that require no special training to operate.

The CG10 is pre-calibrated to steel, for immediate inspection. Whilst the gauge is supplied ready to measure steel the velocity can be quickly changed using the simple software program which is supplied with each unit, allowing other materials to be measured. The CG10 is the ideal model where one material is being tested day after day.

The CG20 has two user programmable velocities and 8 pre-programmed velocities to measure the thickness of aluminium, steel, stainless steel, cast iron, plexiglass, PVC, polystyrene and polyurethane - making the CG20 an ideal model for the person who tests a few different materials regularly.

These small, lightweight, water resistant units are easy to use and designed for the harshest environments.



Advantages

- Ready to use, straight from the box
- Ideal for basic thickness measurements
- Durable gauge and probe construction
- Large backlight LED display
- Tough, impact, water, dust & petroleum product resistant
- Up to 200 hours battery life

Model & Part Number	CG10	CG20
Display Mode: Material thickness digits display	•	•
Measurement Mode ¹	PE	PE
Measurement Rate Manual:	4 readings per second	4 readings per second
Measuring Range ²	0.63 - 500mm (0.025 - 19.999 inches)	0.63 - 500mm (0.025 - 19.999 inches)
Measurement Accuracy ²	±0.01mm (±0.001 inches)	±0.01mm (±0.001 inches)
Measurement Resolution	0.01mm (0.001 inches)	0.01mm (0.001 inches)
Velocity Calibration Range	1250 - 10,000m/s 0.0492 - 0.3937in/μs	1250 - 10,000m/s 0.0492 - 0.3937in/μs
Additional Features	1 programmable velocity, pre-calibrated for steel	2 user programmable & 8 pre-calibrated velocities for: aluminium, cast iron, plexiglass, polystyrene, polyurethane, PVC, stainless steel & steel
Transducer Probe Type	dual element	dual element
Transducer Frequency Range	1 - 10MHz	1 - 10MHz
V-path / dual path error correction	automatic	automatic
Probe Zero	manual (via integrated probe disk)	manual (via integrated probe disk)
Display	12.7mm (0.5 inches) high digits	12.7mm (0.5 inches) high digits
Units (selectable)	mm or inches	mm or inches
LED Backlight	on / off / auto	on / off / auto
Repeatability / Stability Indicator	•	•
Battery Type	2 x AA alkaline	2 x AA alkaline
Battery Life (approximate)	200 hours	200 hours
Low Battery Indicator	•	•
Battery Save Mode	auto	auto
Operating Temperature	-30 to 50°C (-20 to 120°F)	-30 to 50°C (-20 to 120°F)
Size (w x h x d)	63.5 x 114.3 x 31.5mm 2.5 x 4.5 x 1.24 inches	63.5 x 114.3 x 31.5mm 2.5 x 4.5 x 1.24 inches
Weight (including batteries)	284g (10oz)	284g (10oz)
Aluminium case design with gasket sealed end caps, waterproof membrane keypad	•	•
Transducer Connector Type	LEMO	LEMO
RS232 Interface	for programming only	for programming only
Packing List	Elcometer NDT CG10 gauge, couplant, carry case, user manual, test certificate, 2 x AA batteries, software, transfer cable	Elcometer NDT CG20 gauge, couplant, carry case, user manual, test certificate, 2 x AA batteries, software, transfer cable

Dual Element Thickness Transducers

Dual element transducer for a wide variety of precision thickness measurement applications.



Part Number	Probe Diameter	Probe Characteristic	Damping ¹	Thru Coat	Connector Type					Suitable for measuring							Suitable for													
					Potted	Microdot	Lemo	Top	Side	End	Cast Iron	Plastics	Thin Plastics	Fibreglass	Thin Fibreglass	Steel	Glass	Aluminium	Titanium	VG10	CG10	CG20	CG30	CG50	CG60	CG70	CG100	FD700+		
1.00 MHz Dual Element Thickness Transducer																														
TX1M00EP-1	1/2"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX1M00EP-2	1/2"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX1M00EM-1	1/2"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX1M00EM-2	1/2"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX1M00EP-3	1/2"	Composite	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX1M00EL	1/2"	Armoured	S				•	•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
2.25 MHz Dual Element Thickness Transducer																														
TX2M25CP-1	1/4"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25CP-2	1/4"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25CM-1	1/4"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25CM-2	1/4"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25CP-3	1/4"	Hi Temp ²	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25CM-3	1/4"	Hi Temp ²	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EP-1	1/2"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EP-2	1/2"	Standard	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EM-1	1/2"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EM-2	1/2"	Standard	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EP-3	1/2"	Hi Temp ²	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EM-3	1/2"	Hi Temp ²	S			•		•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EP-4	1/2"	Composite	S		•			•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX2M25EL-1	1/2"	Armoured	S				•	•			•	•		•						•	•	•	•	•	•	•	•	•	•	•
3.50 MHz Dual Element Thickness Transducer																														
TX3M50EP-4	1/2"	Standard	H		•	•			•		•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX3M50EP-1	1/2"	Coating Thickness	CT		•	•			•		•	•		•						•	•	•	•	•	•	•	•	•	•	•
TX3M50EL	1/2"	Armoured	S				•	•			•	•		•						•	•	•	•	•	•	•	•	•	•	•



Microdot



Potted



LEMO 00

Dual Element Thickness Transducers - Continued

Part Number	Probe Diameter	Probe Characteristic	Damping ¹	Thru Coat	Connector Type							Suitable for measuring							Suitable for											
					Potted	Microdot	Lemo	Top	Side	End	Cast Iron	Plastics	Thin Plastics	Fibreglass	Thin Fibreglass	Steel	Glass	Aluminium	Titanium	VG10	CG10	CG20	CG30	CG50	CG60	CG70	CG100	FD700+		
5.00 MHz Dual Element Thickness Transducer																														
TX5M00BP-2	3/16"	Standard	S		•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00BP-3	3/16"	Standard	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00BP-5	3/16"	Standard	H	•	•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00BM	3/16"	Standard	S			•			•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00BP-1	3/16"	Low Profile	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00BP-4	3/16"	Coating Thickness	CT	•	•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-3	1/4"	Standard	S		•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-9	1/4"	Standard	H	•	•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-4	1/4"	Standard	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-10	1/4"	Standard	H	•	•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-1	1/4"	Standard	S			•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-2	1/4"	Standard	S			•			•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-9	1/4"	Standard	H	•		•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-1	1/4"	Low Profile 1" Wand	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-2	1/4"	Low Profile 9" Wand	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-5	1/4"	Super Standard	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-6	1/4"	Coating Thickness	CT	•	•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-3	1/4"	Coating Thickness	CT	•		•			•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-7	1/4"	Hi Temp ²	S		•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CP-8	1/4"	Hi Temp ²	H	•	•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-4	1/4"	Hi Temp ³	H	•		•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00CM-5	1/4"	Hi Temp ²	S			•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-2	1/2"	Standard	S		•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-3	1/2"	Standard	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-10	1/2"	Standard	H	•	•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EM-1	1/2"	Standard	S			•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EM-2	1/2"	Standard	S			•			•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-4	1/2"	Coating Thickness	CT	•	•				•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-5	1/2"	Hi Temp ²	S		•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EM-3	1/2"	Hi Temp ³	S			•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EM-4	1/2"	Hi Temp ²	S			•		•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-6	1/2"	Hi Temp ²	H	•	•			•						•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EL-1	1/2"	Armoured	S				•		•					•			•	•			•	•	•	•	•	•	•	•	•	•
TX5M00EP-1	1/2"	Cylinder Probe - Iron	S		•				•					•			•	•			•	•	•	•	•	•	•	•	•	•



Underwater

Ultrasonic transducer specially designed for use with the UG20DL Underwater Thickness Gauge.



Delay Line

Small part used with single element ultrasonic transducers to slow the sound pulse down to allow measurement on thinner materials.

Dual Element Thickness Transducers - Continued

Part Number	Probe Diameter	Probe Characteristic	Damping ¹	Thru Coat	Connector Type						Suitable for measuring							Suitable for											
					Potted	Microdot	Lemo	Top	Side	End	Cast Iron	Plastics	Thin Plastics	Fibreglass	Thin Fibreglass	Steel	Glass	Aluminium	Titanium	VG10	CG10	CG20	CG30	CG50	CG60	CG70	CG100	FD700+	
7.50 MHz Dual Element Thickness Transducer																													
TX7M50BP-1	3/16"	Standard	S		•			•					•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50BP-2	3/16"	Standard	S		•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50BP-3	3/16"	Coating Thickness	CT	•	•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-1	1/4"	Exxon Spec	S		•			•					•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-2	1/4"	Exxon Spec	S		•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CM-1	1/4"	Exxon Spec	S			•		•					•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CM-2	1/4"	Exxon Spec	S			•			•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-3	1/4"	Extra Resolution	S		•			•					•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-4	1/4"	Extra Resolution	S		•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-6	1/4"	Standard	H	•	•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CP-5	1/4"	Coating Thickness	CT	•	•				•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CM-3	1/4"	Extra Resolution	S			•		•					•			•	•	•		•	•	•	•	•	•	•	•	•	•
TX7M50CM-4	1/4"	Extra Resolution	S			•			•				•			•	•	•		•	•	•	•	•	•	•	•	•	•
10.00 MHz Dual Element Thickness Transducer																													
TX10M0BP-1	3/16"	Standard	S		•				•							•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0BP-2	3/16"	Standard	S		•			•								•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0CP-3	1/4"	Standard	S		•			•								•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0CP-4	1/4"	Standard	S		•				•							•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0CM-1	1/4"	Standard	S			•		•								•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0CM-2	1/4"	Standard	S			•			•							•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0CP-1	1/4"	Low Profile 1" Wand	S		•				•				•			•	•			•	•	•	•	•	•				
TX10M0CP-2	1/4"	Low Profile 9" Wand	S		•				•				•			•	•			•	•	•	•	•	•				
TX10M0EP-2	1/2"	Standard	S		•			•								•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0EP-3	1/2"	Standard	S		•				•							•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0EM-1	1/2"	Standard	S			•		•								•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0EM-2	1/2"	Standard	S			•			•							•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX10M0EP-1	1/2"	Cylinder Probe - Alum	S		•				•				•			•	•			•	•	•	•	•	•				

What connection should it have?



Potted

The ultrasonic transducer is strongly secured to the cable at the factory



Microdot

The ultrasonic transducer is attached using two small screw type connectors, enabling replacement of the cable in case of accidental damage or wear



LEMO 00

Large diameter ultrasonic transducers may be purchased with the sturdy Lemo 00 connection on the probe side for increased wear resistance



Armoured Fitted

Ultrasonic transducers with a heavy duty armoured cable for increased wear resistance.



Pencil Probe: 1/16" Tip

Pencil style ultrasonic transducer with a straight or 90° angle tip for limited access applications.



Hi Temp

A high temperature ultrasonic transducer to be used on hot surfaces. High temperature ultrasonic transducers are available up to either 343°C (650°F) or 482°C (900°F).



Finger Tip

General purpose ultrasonic contact transducers for use with the FD700+ series, featuring good near surface resolution. Also available with a high power composite crystal for better penetration or as a slim line model for accurate positioning.



High Wear

Designed for use with the FD700+ flaw detectors features a reinforced tip design for abrasive surface applications. Also available with a highpower composite crystal for better penetration.



Underwater

Ultrasonic transducer specially designed for use with the UG20DL Underwater Thickness Gauge.



Delay Line

Small part used with single element ultrasonic transducers to slow the sound pulse down to allow measurement on thinner materials.



Cylinder Probes

Ultrasonic transducers featuring a curved wearface for measuring inside cylinders and engine blocks. Available for measuring on Iron (Iron) or Aluminium (Alum).



Low Profile

Small body ultrasonic transducer to enable measurement in small spaces, available with either a standard, 25mm (1") or 225mm (9") handles.



Shear Wave

Large single element ultrasonic transducer designed to be used with angle beam wedges for a powerful flaw detection solution.



Membrane

Ultrasonic transducer with a soft, flexible wearface that increases contact quality between the transducer and the part on rough surfaces. Also available with a high power composite crystal for better penetration.



Finger Tip

General purpose ultrasonic contact transducers for use with the FD700+ series, featuring good near surface resolution. Also available with a high power composite crystal for better penetration or as a slim line model for accurate positioning.

SS

Super Standard

High power ultrasonic transducer for increased range and penetration through sound absorbing materials.

HD

Damping

Limiting the duration or decreasing the amplitude of vibrations. HD transducers enable Echo – Echo measurement and the Thru-Paint capability found on certain Elcometer gauges. This mode ignores the thickness of paint allowing measurement of a substrate without damage to the coating.

CPZT

Composite

High gain ultrasonic transducer for increased power and penetration.

HR

Extra Resolution

Ultrasonic transducers featuring increased near-surface resolution, ideal for use on thin substrates.

CT

Coating Thickness

Utilising ThruPaint™ technology these ultrasonic transducers are capable of simultaneous measurement of coating and material thickness.