

Ultrasonic Thickness Gauges

ANY JOB GAUGE

ETM 3 & ETM 3DL



- Dual, Single, Delay line Transducers
- Measuring Range 0.8mm to 499 mm
- Large LCD display with Back light
- Raw material, Finished Components, Shop Floor, Laboratory, Site

The New Ultrasonic Thickness Gauge Model ETM3/3DL is the most modern & unique thickness gauge in its category. The equipment is ideally suited for almost every ultrasonic thickness gauge applications, The Models are compatible with a range of Single, Dual & Delay line Transducers. The versatile ETM3 / 3DL can be used for almost any application ranging from small profiles to highly attenuating jobs.

The ETM3 / 3DL comes in ergonomically designed industrial plastic casing to suit various environmental conditions. The Large LCD display with back light provides clear & comfortable readability in bright sunlight to darkness.

Easy Operation

- Very simple and ergonomically designed keypad for left / right operation.
- Easy accesible Transducer menu for probe selection.
- USB communication port option in ETM3DL
- Datalogging facility with 4000 readings in ETM3DL

Cost Effective Performance

The ETM-3/3DL provides a very convenient & consistent performance using latest technology. The equipment incorporates basic thickness gauging functions and with its inbuilt software & hardware compatibility functions enables it to upgrade to other functions including small profiles, Corrosion, Through coating, High Temperature, Highly attenuating jobs, Thin material etc. The above helps it to become the most cost effective solution in its category without going for new / separate equipment for these additional functions, also making it truly "Any Job Gauge".



Key Features:

- High Speed Digital Circuit.
- Stable, Repeatable & Accurate Readings.
- Single, Dual & Delay line Transducer compatibility.
- Wide Thickness range: 0.8mm (0.03 in.) to 499mm (19.65 in.) against material & Transducers used.
- Standard resolution of 0.01mm upto 200mm range and 0.1mm up-to 499mm.
- Velocity measurements, 700 to 14000 m/sec.
- Corrosion Thickness measurements.
- Through coat measurement capability using C - 410 probe.
- Easy one step calibration mode.
- Unique Smart Function "Optimise" for Thin, Thick & Normal modes Transducer use.
- Alarm mode i.e. High & Low selectable.
- Differential mode: for measuring changes from set value.
- Tough, light weight & durable industrial grade engineering plastic body.
- Simplest & direct key based functions.
- Most cost effective thickness application option in its category.
- USB & datalogging facility up-to 4000 readings in ETM3DL option.
- Choice of probes to suit various demanding Applications.

Suitable for:

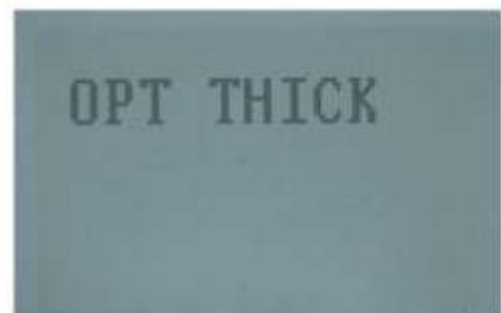
- Pipes, Tubes, Elbows,
- Plates, Thin Strips,
- Corroded Wall,
- Shipping & Offshore,
- Castings,
- Components,
- Non-Ferrous, Ferrous, Glass, Plastics, Composites.
- Tanks, Vessels, Structuresmany more.



High / Low Alarm



Differential Mode



Optimise feature

One Gauge Measures:

- Very thin to very thick jobs,
- Corroded / Very rough to smooth surfaces,
- Small Curvatures,
- Through Coating,
- Coarse Grain Material,
- High Temperature.

Probe Selection Guide

Model	Type	Probe			Application	Optimize			Display Resolution
		Freq	Crystal	Tip Dia		Thin	Normal	Thick	
		Mhz	mm	mm		mm	mm	mm	
P. 81	Dual	6	8	11	General Purpose	1.5- 50	2- 100	5-200	0.01
P. 86	Dual	6	5	8	General Purpose, Small Contours	1.5- 25	1.5- 25	2 - 50	0.01
P. 45	Dual	4	10	16	General Purpose, High Temperature (450°C)	2 - 100	3 - 100	5-200	0.1
P. 21	Dual	4	10	16	High Penetration, Attenuating Material	3 - 50	3 - 100	5 - 100	0.1
P. 84	Dual	6	10	16	General Purpose, Corrosion	2 - 50	2 - 100	4-200	0.1
C.124	Single	1	24	28.5	High Penetration, Coarse Grain Material	20 - 100	25 - 100	30-200	0.1
C. 224	Single	2	24	28.5	High Penetration, Attenuating Material	20 - 100	25 - 200	30-499	0.1
C. 410	Single	6	10	14.6	Through Coating	5 - 20	15 - 30	10 - 30	0.1
C 605	Single	6	10	14.6	General Purpose	8 - 20	10 - 50	10 - 100	0.1
C 610	Single	10	5	10	Thin Material, High Accuracy, Smooth Surface	3 - 25	3 - 50	4 - 100	0.01
D 155	Delay Line	15	5	7.5	Thin Material, High Accuracy, Smooth Surface	0.8 - 10	1 - 15	1 - 15	0.01

Note :- • 'C' & 'D' Series probes require cable, to be purchased extra • High Temperature is with intermittent contact only
• Measuring Range specified is indicative only. Actual capability depends on material, surface condition & job profile

ETM3/3DL Specifications

Thickness measuring range	: 0.8mm 499mm (0.030 to 19.96 inches) in steel @ Velocity 5890 M/Sec. (dependent upon job, & probe type).
Velocity Range	: 700 M/Sec to 14000 M/Sec (0.0275 to 0.551inches/μ Sec).
Measurement Rate	: Two readings per second.
Resolution	: 0.01mm (0.0004inches) for less than 100mm and 0.1mm (0.004inches) for above 100mm (dependent on probe type).
Transducer Frequency ranges	: 1MHz to 15MHz in Single, Dual & Delay line mode.
Other Measurements	: Through coat, thickness
Accuracy	: ±0.06mm (dependent on job and probe type).
Units	: Millimeters or Inches.
Auto Off	: 120 seconds after last operation or on low battery.
Dimensions (W x H x D)	: Overall : 80mm x 125mm x 36mm (3.2in x 5in x 1.44in)
Weight	: 225gms.
Key Pad	: Sealed tactile Keys, Keyboard lock mode selectable.
Operating Temperature Range.	: 0 to 55° C.
Calibration	: Either using calibration block or Velocity entry or using known thickness block of required job material.
Display	: Graphics LCD, 55mm x 40mm size, with Black light.
Smart Functions	: 1. Differential Thickness (measures deviation from user defined reference value) 2. Alarm (when user defined high or low thickness limits are crossed). 3. Optimize thin (suitable for lower thickness, factory set parameters). 4. Optimize thick (suitable for higher thickness factory set parameters).
Probe Type	: Single probe, Dual probe or Delay Line probe.
Probe Connectors type	: Mini-Lemo connector, Microdot for D-155.
DATALOGGING (ETM3DL)	: Data logger with memory for Thickness 4000 readings.
PC CONNECTIVITY (ETM3DL)	: USB port & Cable for easy connectivity & data transfer to PC.
PC TRANSFER SOFTWARE (ETM3DL)	: Transfer Software included with Standard Kit.
Power Supply	: 4, 'AAA' Alkaline cells or Optional Rechargeable batteries with Charger/Adaptor (230VAC).
Battery Discharge Time	: 9 hrs. with back light.
Standard Kit Contents	: Instrument Protecting cover, Operating manual, SB-2 block and Carrying case.
Optional accessories	: Probes of various types, Calibration Blocks, Couplants and probe cables.



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