

SINCE 1987

ULTRASONIC THICKNESS GAUGE

MG5 SERIES (Microcontroller Based) : MG5 & MG5-P

HIGH PRECISION ULTRASONIC WALL THICKNESS MEASUREMENT ONLY FROM ONE SIDE

With 3 years
Warranty &
NPL Traceable
Certificate

Useful for Testing of Pipelines, Coils & Tubes, Pressure Vessels, Reactors, Gas Cylinders, Condensers, Boilers, Distillation Columns, Storage Tanks, Turbines, Shiphulls, Heat Exchangers, Pumps, Valves, Rolled Sheets, Glass Containers, Plastic Tanks & Parts.

Testing Materials : Steel (Mild Steel, S.S., Cast Steel, Cast Iron and Alloys of Steel), Aluminium, Copper, Lead, Tin, Brass, Alloys, Plastics (PVC, PP, LDPE, HDPE, PET), Glass, Ceramic.

MODEL - MG5 (Microcontroller Based)



FEATURES

- Single Step Calibration
- Pocket Sized
- Feather Touch Keypad
- Velocity Setting or Measurement
- ± 0.1 mm & ± 0.01 mm Resolution
- Large LCD Display
- Built-in Calibration Block
- 100 Hours Battery Life
- Automatic V-path Correction
- NPL Traceable Calibration Certificate

APPLICATIONS

- Raw Material Inspection
- Fabrication
- Quality Control
- Maintenance
- Corrosion and Erosion Survey



MODEL-MG5-P (Microcontroller Based)

MG5 & MG5-P TECHNICAL SPECIFICATIONS

• Principle	: Ultrasonic Pulse-echo	• Velocity Range	: 1000 m/sec to 9990 m/sec
• Applicable Materials	: Steel (M.S., S.S, C.S., C.I., Aluminium, Copper, Lead, Tin, Other Metals, Brass, Monel, other Alloys, Hard Plastics (PVC, HDPE, LDPE, PP, PET), Glass, Ceramic etc.	• Keyboard	: Soft Touch Keyboard with sealed keys.
• Measurement Range	: 1.5 mm to 200 mm (In steel). Range depends on test material and probe.	• Display	: Large size LCD displays Thickness, Units, Velocity, Low-Bat Indication, Coupling Check.
• Resolution	: MG5 : 0.1 mm, MG5-P : 0.01mm	• V-Path Correction	: Automatic V-Path correction for higher accuracy at lower readings.
• Accuracy	: MG5 : ± 0.1 mm up to 60 mm. Above 60 mm $\pm 0.3\%$.(with Standard Probe DG-210). MG5-P : ± 0.03 mm up to 20 mm. ± 0.1 mm between 20 mm & 60 mm. Above 60 mm $\pm 0.3\%$.(With Standard Probe DG-210).	• Batteries	: 5 No. Pencil Dry Cells (AA) or Ni-Cd.
• Calibration	: Single Point Calibration.	• Operating Time	: 100 hours. (With Alkaline Cells).
		• Auto Timer Cutoff	: Instrument switch-off after 5 minutes of idle use.
		• Low Battery	: Low-Bat Indication in LCD Display.
		• Case	: Light Aluminium Sturdy Case.
		• Size (Approx.)	: 80 mm (W) X 155 mm (H) X 38 mm (D).
		• Weight (Approx.)	: 400 gms. (Including batteries)

POCKET MODELS DT2-C & DT2



MEGASONIC manufactures Ultrasonic Thickness Gauges meant for precise measurement of wall thickness using ultrasonic echo principle. The instrument is supplied with a probe and Calibration Master for MS on which the instrument is to be calibrated with a drop of oil as a couplant. After calibration the instrument is ready to check thickness of MS articles just from one side with use of oil as couplant. The probe transmits ultrasonic pulses from the top surface of the test-piece and after travelling through the material they are reflected at the bottom surface back of the test-piece. As speed of ultrasonic waves vary with material a Calibration Master for that material (other than MS) is needed which is supplied as optional accessory.

The instrument displays instantly the thickness of the test-piece with reading in digits with accuracy 0.1 mm. It also finds out thinning due to bending, forming, drawing and detects manufacturing defects like laminations, folds, voids in plates. It helps to find out the remaining wall thickness of pipelines etc. just from one side without counting the rust, scale formation on the other side.

The Standard Probe DG-210 supplied with instrument is used for plane and curved surface like pipeline, gas cylinder etc. for higher diameter objects. Low Curvature Probe is used for smaller diameter pipelines and Finger Tip Probe is meant for readings in congested areas.

LCD Models (MG5, DT2-C&DT1-C) have bright light as well as low ambient light visibility are meant for outdoor as well as indoor applications. LCD Models are recommended which consume less power as compared to LED Models (DT2 & DT1) unless measurements are always to be taken in very dark areas.

DG-210, DG-220 : Standard Probe : High range probe : For plane and externally curved surface like pipes, cylinders of outer diameter more than 50 mm.

DC-210 : Low Curvature Probe : For smaller diameter curved surface like pipes with outer diameter between 25 to 50 mm.

DF-206 : Finger Tip Probe : For closely spaced or congested areas.

PORTABLE MODELS DT1-C & DT1



TECHNICAL SPECIFICATIONS (IN STEEL)	Pocket Models		Portable Models	
Models	DT2-C	DT2	DT1-C	DT1
Measuring Range	1.5 mm to 199.9 mm		1.5 mm to 100 mm	
Measuring Accuracy	± 0.1 mm upto 60 mm. Above 60 mm ± 0.3%			
Minimum Thickness Measured	1.5 mm			
Probes	DG-210 : Standard, Optional DC-210 : Curvature, DF-206 : Finger Tip, DG-220 : High Range			
Test Frequency	2 MHz			
Batteries			9 V DC i.e. 6 No. of Medium size (C) cells	
Low Battery Indication	Decimal Point in display blinks.		Decimal Point in display and front panel LED blinks.	
Dimensions (Approx.)	80 mm x 155 mm x 38 mm (WxHxD)		195 mm x 65 mm x 140 mm (WxHxD)	
Weight (Approx.)	400gm including batteries		1.5 Kg including batteries	
Display	LCD	LED	LCD	LED

PROBES

Type	DG-210	DG-220	DC-210	DF-206
Nomenclature	Standard	High Range	Low Curvature	Finger Tip
Thickness Range in Steel (mm)	1.5 to 100	3.0 to 199.9	1.5 to 10.0	1.5 to 10.0
Surface	Flat & Curved (Above 50 mm in OD)		Only Curved	Restricted
Curvature Range (mm)	OD 50 mm & above	OD 50 mm & above	OD 25 to 50 mm	OD 50 mm & above
Sensing Face Dia. (mm)	10	20	10	6
Probe Size (mm) Dia x Height	Φ 15 x 30 h	Φ 25 x 40 h	Φ 15 x 30 h	Φ 11 x 40 h
Max. Surface Temp. (°C)	-25 to + 70			
Couplant	Ordinary Oil, Glycerine, Grease			

All Probes are supplied with cable and five pin connectors at one end. (Lemo optional) Modification rights reserved

Other Products : Plating / Coating Thickness Gauges, Ultrasonic Flaw Detectors.

Manufactured & Marketed by :

MEGASONIC INDUSTRIES P. LTD.

Regd. Office & Works: 113, Ashok Industrial Estate,
Near Shangrilla Co., L.B.S. Marg, Bhandup (W), Mumbai - 400 078.
Tel.: (022) 2596 0911, 2596 0882. Fax: (022) 2596 0882.
E-mail : megasonic@vsnl.net Website : www.megasonicindia.com



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