



Established 1981

Advanced Test Equipment Rentals

www.atecorp.com 800-404-ATEC (2832)

# DM2E

## Handheld Ultrasonic Thickness Gauge

### DM2E advantages

- Simple operation — 4 pushbuttons
- 300 hours of use on 3 AA alkaline batteries
- Compatible with DM2, DM3, and DME probes to satisfy a wide range of applications
- Automatic V path correction for measurement linearity
- Large backlit LCD display
- Holds last reading on the display



## Simply a thickness gauge

The DM2E is designed for quick, easy, nondestructive thickness measurement from one side of curved, irregular-shaped, and internally corroded and eroded parts. It is simply a thickness gauge . . . built to deliver the reliable, durable operation you have come to expect from a Krautkramer Branson D-meter.

### Easy to Use

Simple operation is achieved through four self-explanatory pushbuttons on a sealed front panel. After turning the unit on, simply follow these easy steps for reliable calibration: (1) Press the "CAL" key and couple the probe to the built-in probe zero (PO) block on the front of the instrument until a row of dashes appears on the

display. (2) Couple the probe to a calibration standard of known thickness and obtain a stable reading. (3) Uncouple the probe and increment or decrement the display using the arrow keys to match the thickness of the calibration standard. (4) Press the "CAL" key again to end the calibration procedure, and begin measurements.

### Inspection Versatility

The DM2E is compatible with a large variety of dual element (pitch/catch) DM2, DM3, and DME probes to satisfy a wide range of thickness gauging applications. Capable of measuring as thin as .030 inches (.8mm) in steel, the DM2E can also measure most metals and non-metals (i.e. aluminum, titanium, plastics, glass, ceramics, etc.).

### Rugged, Reliable and Economical

The DM2E is designed for rugged, dependable field use. The impact-resistant molded housing is gasketed and sealed to protect the electronics from mechanical damage and contamination.

Three easily replaceable AA alkaline batteries provide up to 300 hours of reliable operation. Batteries are contained in a battery compartment that is totally isolated from the electronics to eliminate battery replacement damage to the circuitry. A bulky battery charger and the associated worries about proper discharge/recharge cycles are eliminated. Automatic shut-off occurs after three and one-half minutes of non-use to conserve battery power.

# DM2E

## Base Instrument Package

DM2E Digital Ultrasonic Thickness Gauge  
 Three 1.5V AA Alkaline Batteries  
 Carrying Case  
 Operating Manual  
 Certificate of Calibration

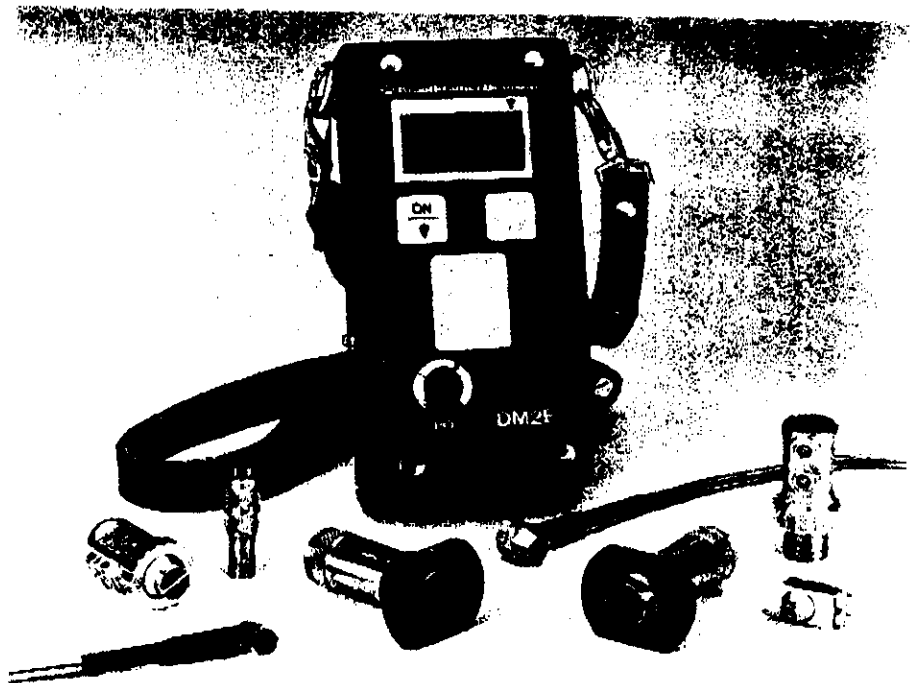
## Accessories

**LC-E**  
 Leather instrument case with adjustable neck and wrist straps

**KBA531 or KBA531R**  
 Straight or right angle probe cables for KBA560, 560V, DA312

**C-BTH**  
 Probe cable for KB550 BTH

**KBA533 or KBA533R**  
 Straight or right angle probe cables for DA301 or DA303



Probes (left to right) are E (front), G, F, C, A, B, D (front) and H. See Specifications table for model identification.

## Specifications

**Operating Principle**  
 Ultrasonic pulse/echo

**Probe Zero Adjustment**  
 Push button, keyed to instrument probe zero block

**V-Path Correction**  
 Automatic, microprocessor controlled

**Measuring Range**  
 .030 to 9.999" (.75 to 300 mm) depending on probe and material

**Resolution**  
 .001" in inch mode.  
 .1 mm in metric mode

**Update Rate**  
 4 Hz

**Display Type**  
 4 digit, .5" (12.7 mm) high with electroluminescent backlight

**Power Supply**  
 3 ea. 1.5V, AA alkaline cells

**Displayed Information**  
 Thickness value  
 Units of measurement (in/mm)  
 Coupling/no coupling  
 Backlight enable/disable  
 Low battery indicator  
 Overrange indicator  
 Calibration mode indicator

**Operating Time**  
 Up to 300 hrs. @ 25% duty cycle (up to 150 hrs. using backlight)

**Auto Shut-off**  
 After 3.5 minutes of non-use

**Temperature Range**  
 +10°F to +120°F  
 (-10°C to +50°C)

**Dimensions (L x W x D)**  
 6.5" x 3.0" x 1.6"  
 (165.1 mm x 72.2 mm x 40.6 mm)

**Weight**  
 14.5 oz. (.4 kg) including batteries

## DM2E Compatible Probe Specifications

Model	Designation	Contact Diameter	Measuring Range (Steel)	Temperature Range
A.	PH2-E High Sensitivity Fingertip	.38" (9.6 mm)	.030 - 2.0" (.75 - 50 mm)	< 130°F (< 54°C)
B.	KBA560 General Purpose	.625" (15.9 mm)	.060 - 8.0" (1.5 - 200 mm)	< 450°F (< 230°C)
C.	KBA560V High Temperature	.700" (17.8 mm)	.100 - 5.0" (2.5 - 125 mm)	< 750°F (< 400°C)
D.	DA312 Thin Materials	.30" (7.6 mm)	.030 - 1.0" (.75 - 25 mm)	< 130°F (< 54°C)
E.	KB650PH Fingertip	.375" (9.5 mm)	.060 - 2.0" (1.5 - 50 mm)	< 130°F (< 54°C)
F.	KB550BTH Boiler Tube	.375" (9.5 mm)	.060 - 2.0" (1.5 - 50 mm)	< 130°F (< 54°C)
G.	DA301 General Purpose	.475" (12.1 mm)	.050 - 8.00" (1.2 - 200 mm)	< 140°F (< 60°C)
H.	DA303 High Penetration	.635" (16.2 mm)	.200" (5 mm) minimum	< 140°F (< 60°C)

Instrument and probe specifications are subject to change without notice.

The DM2E is covered by a full two year warranty on parts and labor.

**IN U.S.A.**  
 Krautkramer Branson  
 P.O. Box 350  
 Lewisburg, PA 17044-9990  
 Telephone: (717) 242-0327  
 or (717) 242-0331  
 Telex: 842-354  
 FAX: 717-242-2606

**IN GERMANY**  
 Krautkramer GmbH & Co.  
 Robert-Bosch-Strasse 3  
 D-5030 Hurth 5  
 West-Germany  
 Telephone: (02233) 601-0  
 Telex: 8881643 echo d  
 FAX: 601-402

**IN GREAT BRITAIN**  
 Wells Krautkramer  
 Blackhorse Road  
 Leitchworth, Hertfordshire  
 England SG9 1HF  
 Telephone: (0 46 26) 7 81 51  
 Telex: 82329  
 FAX: 4626-79599

**IN JAPAN**  
 Krautkramer Foerster Japan  
 Shin Taiso Building No. 3  
 10-12, Dogenzaka 2-Chome  
 Shibuya-Ku, Tokyo 150  
 Telephone: 03 (476) 5941  
 Telex: 2423507  
 FAX: 476-0211

 **Krautkramer Branson**



## **SPECIFICATIONS: DM4E**

### **Operating Principle**

Ultrasonic pulse/echo

### **Probe Zero Adjustment**

Automatic, or manual 2-pt. calibration

### **V-Path Correction**

Automatic, microprocessor controlled

### **Measuring Range**

.025" to 20.00" (.6 to 500 mm.) depending on probe, materials, surface conditions, and temperature

### **Resolution**

.001" or 0.01" up to 9.999" ; 0.01 above 9.999"  
(.01 or .1 mm up to 99.99mm, .1 above 99.99mm)

### **Update Rate**

4 Hz; .25 Hz in Minimum Capture Mode

### **Gain**

Automatic or manual (Hi, Med., Lo)

### **Velocity Range**

39,000 to 393,700 in/sec.  
1000 to 9999 m/sec.

### **Receiver Bandwidth**

1 MHz to 10 MHz (-3dB)

### **Display Type**

4 digit LCD, .5" (12.7 mm) high with electroluminescent backlight

### **Power Supply**

2 ea. 1.5 V, AA alkaline cells  
Hi/Lo gain indicator (manual mode)

### **Operating Time**

Up to 200 hrs. @ 25% duty cycle without backlight

### **Auto Shut-Off**

After 3 min. of non-use

**Temperature Range**

+10 degrees F to +120 degrees F  
(-10 degrees C to +50 degrees C)

**Dimensions (L x W x D)**

5.8" x 3.0" x 1.4"  
(146.0 mm x 76.2 mm x 34.2 mm)

**Weight**

9 oz. (255 g) including batteries