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# **Analog Durometer**

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## **Model AD-100**

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**Operating Instructions**

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## 1.0 Introduction

The new Check-Line AD-100 analog durometer is the ideal choice for a wide range of Shore hardness measuring applications. The AD-100 displays hardness readings on an easy-to-read analog scale calibrated in 0 to 100 Shore units. Seven scales are available: A, B, C, D, DO, O, OO.

The AD-100 conforms to:

- ASTM D-2240
- DIN 53505
- ISO 868
- ISO 7619

### 1.1 Unpacking

Unpack the durometer and inspect it for any shipping damage. Notices of defect must be filed immediately, in writing, at the latest within 10 days on receipt of the goods.

### 1.2 Complete Kit

The AD-100 is supplied as a complete kit including the durometer, instruction manual and NIST-traceable calibration certificate all in a foam-fitted metal carrying case.



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## 2.0 Testing Procedure

1. Place the instrument on the material to be tested. The AD-100 can be used at any angle, it does not need to be vertical.

**NOTE:** If the gauge is equipped with the Memory Pointer option make sure the pointer is returned to zero before starting.

2. Press the foot of the gauge firmly against the specimen, but not so firmly as to imbed the foot into the surface of the material.

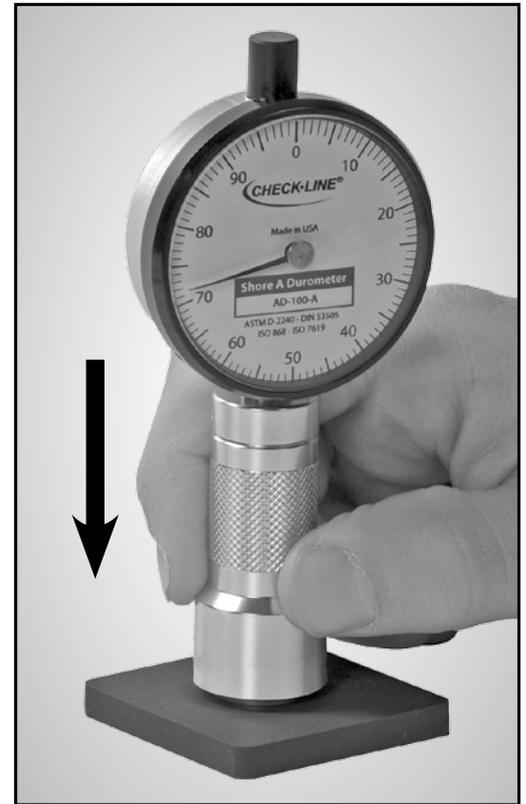
3. Maintain pressure for 2 to 3 seconds. The dial hand gives the reading in durometer points.

**IMPORTANT:** After the initial reading has been noted, continue maintaining pressure for several more seconds. Creep or cold-flow of the specimen, if present, will be evident by receding action of the dial hand.

4. Repeat above steps for each use.

*An example of a properly noted durometer reading:*

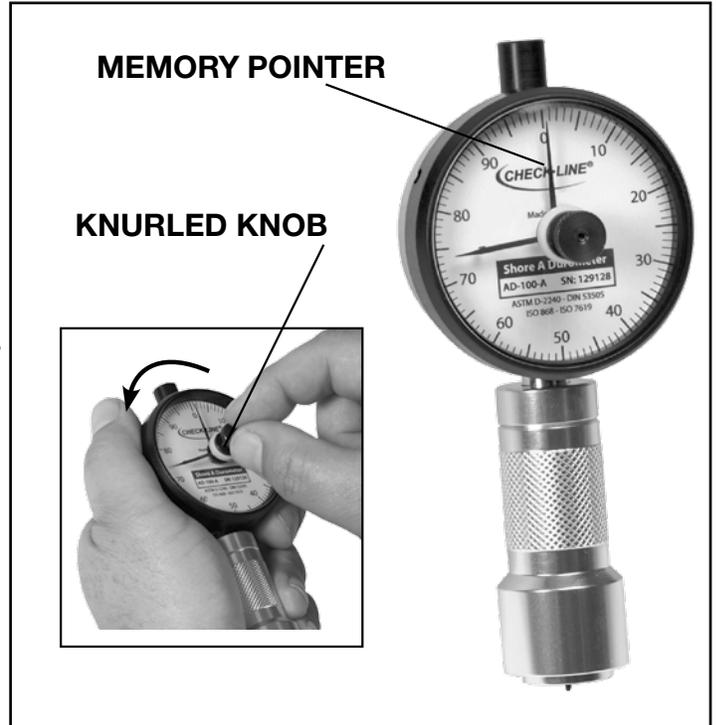
*“Durometer A 61, Creep 7 at 15 seconds, 73°F.”*



### 3.0 Memory Pointer (optional)

The Memory Pointer moves with the measurement pointer when a measurement is taken. However, when pressure on the specimen is released, and the measurement pointer returns to zero, the Memory Pointer remains in position, marking the last measurement.

To return the Memory Pointer to the zero position prior to taking another measurement, rotate the knurled knob on the face of the instrument counter- clockwise until the pointer has been reset.



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## 4.0 Specifications

|                        |  |
|------------------------|--|
| <b>Measuring Range</b> | 0 to 100 units   |
| <b>Accuracy*</b>       | ±1 durometer unit (A, B, C, D, O, DO)<br>±2 durometer units (OO) |
| <b>Dial Size</b>       | 1.97" (50mm) diameter  |
| <b>Dimensions</b>      | 5.04" x 2.24" x 1.18" (128 x 57 x 30 mm)                         |
| <b>Weight</b>          | 7 ounces (200 grams)   |
| <b>Warranty</b>        | 1 year   |

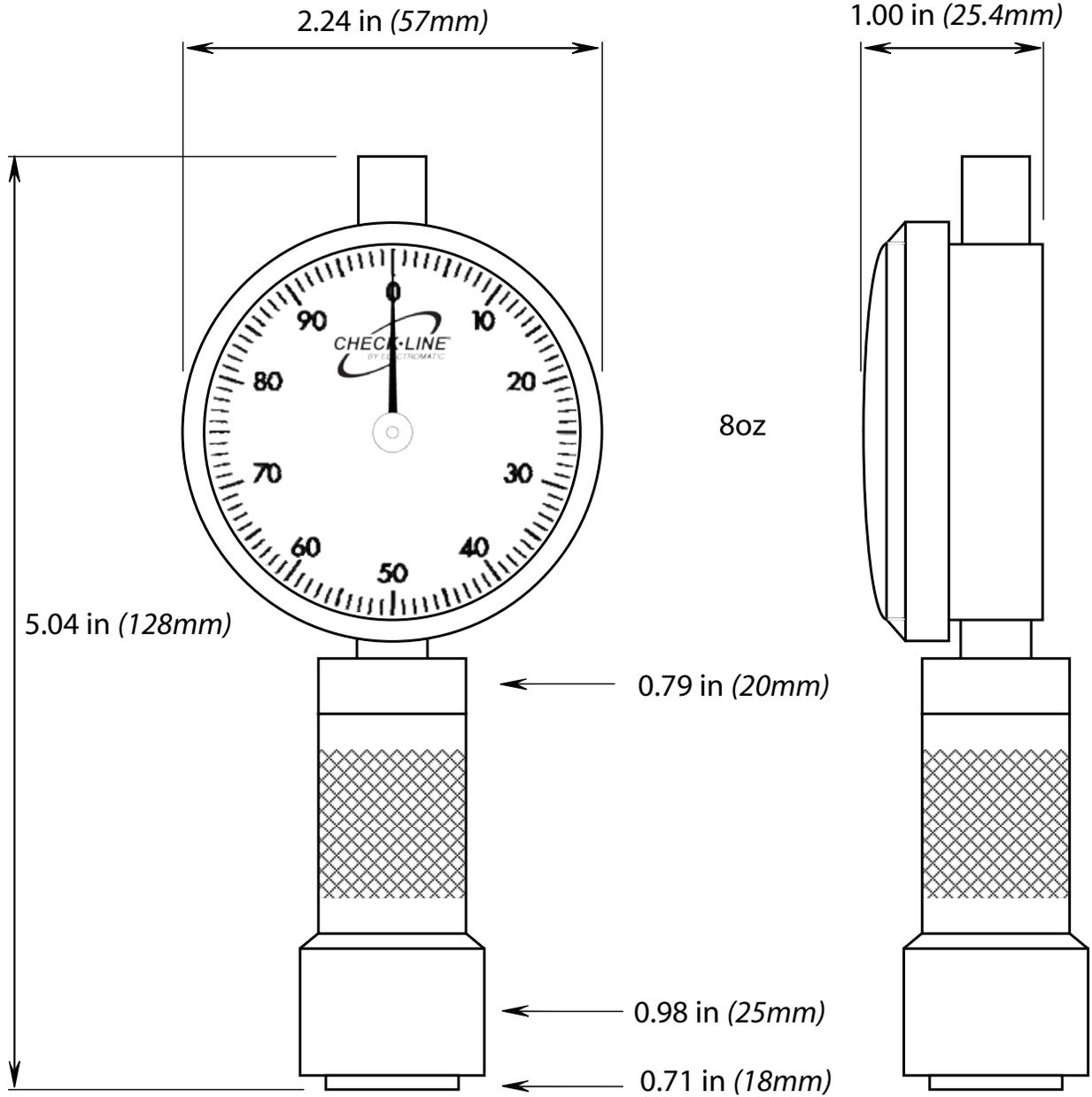
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\* **NOTE:** per ASTM D 2240-05, Sect 9.3: It is accepted that durometer readings below 20 or above 90 are not considered reliable. It is suggested that readings in these ranges be omitted.

### 4.1 Conformance to International Standards

| Model     | ASTM D2240 | DIN 53505 | ISO 868 | ISO 7619 |
|-----------|------------|-----------|---------|----------|
| AD-100-A  | ●          | ●         | ●       | ●        |
| AD-100-B  | ●          |           |         |          |
| AD-100-C  | ●          |           |         |          |
| AD-100-D  | ●          | ●         | ●       | ●        |
| AD-100-DO | ●          |           |         |          |
| AD-100-O  | ●          |           |         |          |
| AD-100-OO | ●          |           |         |          |

## 4.2 Dimensional Drawings



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## **5.0 Calibration and Repair**

All Check Line durometers requiring calibration and/or certification should be sent directly to ELECTROMATIC Equipment Co., Inc.

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## 6.0 Warranty

ELECTROMATIC Equipment Co., Inc. (ELECTROMATIC) warrants to the original purchaser that this product is of merchantable quality and confirms in kind and quality with the descriptions and specifications thereof. Product failure or malfunction arising out of any defect in workmanship or material in the product existing at the time of delivery thereof which manifests itself within one year from the sale of such product, shall be remedied by repair or replacement of such product, at ELECTROMATIC's option, except where unauthorized repair, disassembly, tampering, abuse or misapplication has taken place, as determined by ELECTROMATIC. All returns for warranty or non-warranty repairs and/or replacement must be authorized by ELECTROMATIC, in advance, with all repacking and shipping expenses to the address below to be borne by the purchaser.

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