

DAKOTA ULTRASONICS



PR-9 Sonic Tester

- ▶ Dedicated design for the racing industry, to measure and map the thickness of cylinders & decks on engine blocks, ports on heads, and chassis tubing for car builders and sanctioning bodies.
- ▶ The PR-9 features three material calibration options (single point, two point, and target velocity) for increased accuracy.
- ▶ High speed scan feature that takes 100 readings per second. Drag the probe up the side of a cylinder wall to find the thinnest measurement over the area scanned.
- ▶ Cylinder mapping software available for manually creating reports.
- ▶ The 5 year limited warranty indicates how we feel about the quality.

SOUND SOLUTIONS

THE PR-9 SONIC TESTER

A partial list of common racing probes:

- | | | |
|----------------------------------|-------------------------------|----------------|
| • Chassis Tubing, Roll Cages | 3/16" 10MHz Flat Probe head | 0.00" radius |
| • Cast Iron Cylinder Heads | 1/4" 5MHz with 1" or 9" Wand | 0.60" radius |
| • Aluminum Cylinder Heads | 1/4" 10MHz with 1" or 9" Wand | 0.60" radius |
| • Cast Iron/Alum Cylinder Blocks | 1/2" 5MHz | 2.00" radius |
| • Cast Aluminum Cylinder Blocks | 1/2" 10MHz | 2.00" radius * |

* Only required for noisy materials

Common automotive applications:

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|------------------|---------------|---------------|
| • Cylinders | • Head Ports | • Roll Cages |
| • Chassis Tubing | • Body Panels | • Windshields |

SPECIFICATIONS

Physical

Weight:
11 ounces (with batteries).

Size:
Width (2.5 in / 63.5 mm)
Height (5.17 in / 131.3 mm)
Depth (1.24 in / 31.5 mm)

Operating Temperature:
-22 to 167F (-30 to 75C).

Case:
Extruded aluminum body
with nickel-plated aluminum
end caps (gasket sealed).

Keypad

Sealed membrane that is
resistant to both water and
petroleum products.

Nine tactile-feedback keys.

Transducer

Dual-element (transmit and
receive).
1 to 10 MHz frequency range.
Locking quick disconnect
LEMO connectors.
4 foot cable.
Custom transducers available
for special applications.

Power Source

Two 1.5V alkaline, 1.2V NiCad, or 1.5V
Lithium AA cells.

Typically operates for 45 hours on
alkaline and 23 hours on NiCad.

Low battery indicator on display. Auto
shut-off after 5 minutes of inactivity.

Display

Multi-function 7 segment 4.5 digit
liquid crystal display with 0.500 in
digit height. Two 0.125 in 14 segment
fields for labels and values, and one 7
segment field for labels and values.
Additional icons to indicate features
and modes.

Backlight is selectable on/off/auto,
and selectable brightness (Lo, Med, Hi)
options.

Bar graph indicates repeatability of
measurement.

Certification

Factory calibration traceable to NIST &
MIL-STD-45662A.

Warranty

5 year limited.

Measuring

Range:
Measures from 0.025 to 36.00 inches
(0.63 to 914.4 millimeters). Range
dependent on material and transducer
type.

Automotive Applications:
0.050 to 1.500 inches in casted
materials.

Units:
English & Metric

Resolution:
0.001 inches (0.01 millimeters)

Velocity Range:
0.0120 to .7300 in/μs
(305 to 18,542 m/sec)

PRF: 200Hz

Display Update Rate: 10Hz

High Speed Scan:
Display the lowest measurement found
during a scan. Scan speed at 100Hz.

One or Two point calibration option.