

## KNIGHTRONIX

### DIGITAL RAILCAR BRAKE FORCE MEASUREMENT SYSTEM



Our brake force measurement system is designed to meet the requirements for measurement of brake shoe force on rail cars, as outlined in The Manual of Standards and Practices of the Association of American Railroads, Section E, Standard Number S-401. The standard is copyrighted and available from the AAR.

The system measures and records data from eight brake shoe force sensors simultaneously, as well as handbrake force and cylinder pressure.

Empty and loaded braking ratios are calculated and stored with the information from the sensors.

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## BENEFITS

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1. Accurate - Sensors are calibrated using a precision calibrated N.I.S.T. traceable sensor. Sensor readings are converted to digital data right at each load cell, making the system more accurate than analog systems.
  2. Portable – Data is recorded on a rugged hand-held computer, and can be downloaded to a laptop or desktop computer after completion of the brake test.
  3. Saves time by recording data from all the sensors simultaneously, and reduces the chance for error by eliminating the need to manually record data in a notebook and perform hand calculations.
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## SPECIFICATIONS

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The brake force sensors measure forces from 0 to 10,000 lbf, with maximum non-linearity of only 0.25% full scale.

The handbrake force sensor measures forces from 0 to 9,000 lbf, with maximum non-linearity of only 0.5% full scale.

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The pressure sensor measures pressures from 0 to 100 psi; accurate within +/- 0.1% full scale.

The standard system includes: 8 brake force sensors, 1 handbrake force sensor, 1 cylinder pressure sensor, and 10 network cables.

Also included are a rugged handheld computer, serial network interface box, batteries and power supplies.

The system is packaged in a sturdy carrying case and sent in a protective shipping case.

Shipping weight: 50 pounds.

Shipping Dimensions: 10" x 18.5" x 22.5"

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## CONTACT INFORMATION

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