Application Story

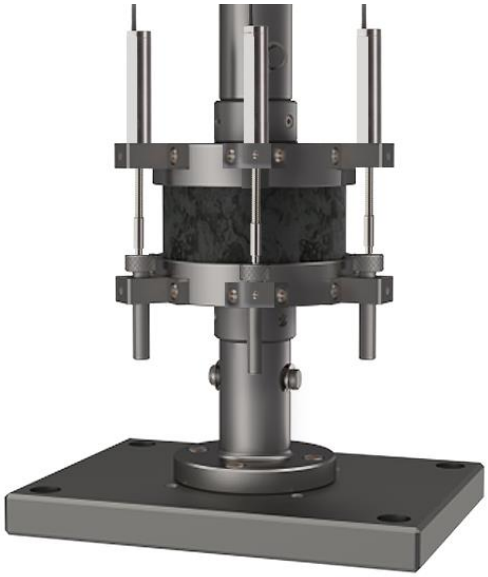
Measure Asphalt or Concrete Compression

The Challenge

When road materials such as asphalt or concrete are being developed, a company might place the material under both compression and expansion to see when it might crack or break. For this type of testing, you need high response, high resolution sensors that detect the slightest movement.

The Solution

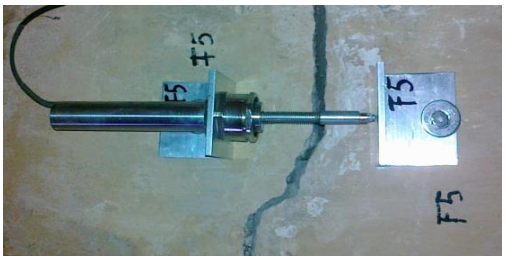
Solartron Metrology offers a full array of displacement transducers and gauging probes that precisely measure any material expansion or compression. They can be rigged to any test equipment, like the image shown here. (right) The S-Series transducer is available in guided and free core versions, and offer an LVDT, DC, 4-20mA, or digital output instantaneously.



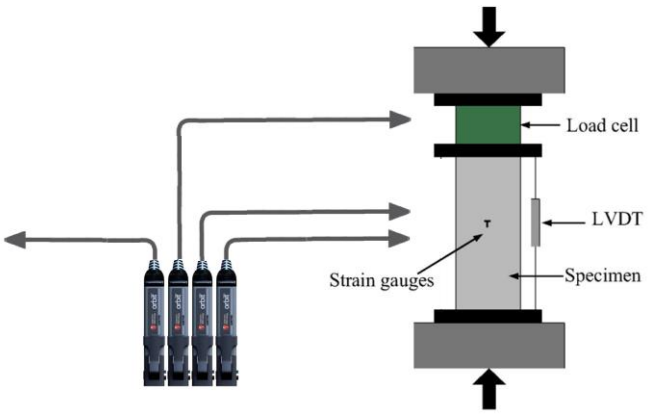
Solartron S-Series transducers mounted to a "compressometer"

- **High Resolution:** Solartron transducers have resolution up to 0.01 microns, providing even the slightest shift in materials.
- **Rapid response:** Solartron LVDT probes will provide a near instant response, with no timing loss, when any displacement is made in a laboratory setting.
- **Up to IP 68 Sealing:** Solartron Displacement LVDTs are available with IP 65 or IP 67 sealing, to protect the internal electronics from tough environments. G-Type probe and Gauging probes can be sealed to IP 68.
- **Customization:** Displacement transducers can be customized for different mounts, such as Universal Joints, and have measurement ranges up to 300mm. They are also available as free core or guided..
- **Multiple Outputs:** Solartron offers DC, 4-20mA, TTL, and other analog output options.
- **Digital Option**: In addition, Solartron's Digital Orbit® network offers a calibrated, digital unit, and enables multiple, synchronized readings into a PC or PLC

S-Series Sensors



Displacement Transducers can also be used to monitor cracks in concrete, steel, or other structural items



Orbit® can be used to network different types of sensors onto one sychronized platform, and then output to software or readout.

Solartron Metrology

AMETEK

Orbit® – The Total Measurement System from Solartron Metrology

The Solartron Orbit® Digital Measuring System provides a limitless set of measurement solutions, with numerous different interfaces to computers and PLC's.

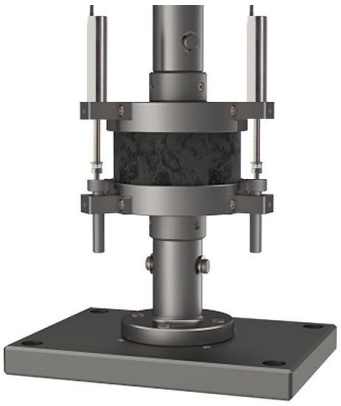
S-Series

Special probes for low temperatures

SI 8500

Compact displacement

S-series transducers in an auto frame



Measurement of concrete compression with G-Type

OP Series