

# Dynamic Embedment Strain Gauge

## Applications

Embedment Strain Gauges are used for measuring dynamic strains in...

- Concrete structures
- Earth fills
- Soils



• Model 3900 Dynamic Embedment Strain Gauge.

## Operating Principle

The Model 3900 Dynamic Embedment Strain Gauge is designed for the measurement of dynamic strains in concrete structures, earth fills and soils. It comprises a full bridge strain gauged proving ring coupled, between two flanges, with a spring and shaft. When the flanges move relative to one another, the tension in the spring changes and hence the strain in the proving ring. A PVC tube serves as a protective housing and holds the gauge at the desired initial tension.

## Technical Specifications

Standard Range	5000 $\mu\epsilon$
Resolution	0.125 mV/V nominal
Accuracy <sup>1</sup>	$\pm 0.25\%$ F.S.
Nonlinearity	$< 0.5\%$ F.S.
Temperature Range <sup>2</sup>	$-20\text{ }^{\circ}\text{C}$ to $+80\text{ }^{\circ}\text{C}$
Active Gauge Length <sup>3</sup>	203 mm

<sup>1</sup>Accuracy established under laboratory conditions.

<sup>2</sup>Other ranges available on request.

<sup>3</sup>Other lengths available on request.

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