

VW STRAIN GAUGE (EMBEDMENT)

INTRODUCTION:

The VW Embedment Strain Gauges of PMT are designed and developed to measure strain in reinforced concrete and mass concrete. Typical area of application includes:

- Piles and mass concrete
- Tunnel segments & dams
- Concrete foundation & diaphragm walls
- Bridges & viaducts

FEATURES:

- Rugged and reliable construction
- High accuracy
- Built in temperature sensor
- Built in surge protection
- Not affected by cable length and resistance

DESCRIPTION:

The Strain Gauge consists of two end blocks with a tensioned steel wire between them. As the steel or concrete surface that encompasses the strain gauge undergoes strain, the end block moves relative to each other causing a change in the wire tension and a corresponding change in its frequency of vibration.

A VW readout/logger is connected to generate voltage pulses in the magnetic coil assembly which plucks the wire and measures/records the resulting resonant frequency of vibration.



VW STRAIN GAUGE (EMBEDMENT)

SPECIFICATIONS:

Model	1501V-SG-E
Sensor element	VW sensor
Range	3000 $\mu\epsilon$ ($\pm 1500 \mu\epsilon$)
Resolution	0.02% FSR
Accuracy	+/- 0.1% FSR
Operating temperature	-20 ^o C to 85 ^o C
Built in temperature device	Standard: RTD Optional: Thermistor
Temperature device range	RTD:-45 to 100 ^o C Thermistor:-30 to 85 ^o C
Material	All stainless steel
Built in lightning protection device	Gas tube arrester (Frequency output lines)
Signal cable	4core shielded cable with PVC jacket
Ordering Information	Model / Range Cable Length / Junction Box / Splicing Kit Readout / Logger/ Wireless

Dimensions and ranges are nominal only and can be modified to suit project requirements.