



ROBUST DESIGN
DESIGNED FOR LONG TERM APPLICATIONS
AVAILABLE WITH VW OR FIBER OPTIC SENSORS

The SSG is a soil settlement gauge used to measure settlement or heave at a precise location in soils.

Description

The SSG consists of a vibrating wire or fiber optic pressure transducer housed in a corrosion-resistant stainless steel body. The housing is normally attached to a base plate and connected to a reference station by a twin tubing filled with water (or anti-freeze solution) and fitted with connectors. The reference station consists of a liquid-filled reservoir open to atmospheric pressure and located at a known elevation. The settlement or heave is measured relative to the elevation of the reservoir.

The SSG is robust and stable. It can be installed in boreholes, standpipes, soil or concrete. The settlement gauge can also be attached to structures for monitoring settlement. To ensure maximum performance, the twin tubing should be flushed at regular intervals to remove air bubbles, and data should be compensated for temperature changes and changes in atmospheric pressure. For best results, de-aired water or antifreeze solution is recommended.

Key Features

- Wide range
- Easy to read
- Robust design for long-term monitoring applications
- Frequency signal of VW sensors easy to process and transmit over long distances
- Fiber optic transducer available that offers immunity to EMI/RFI/lightning and higher accuracy

Applications

- Measuring consolidation of foundation soils
- Measuring settlement of soil within an embankment
- Determining the effectiveness of soil improvement techniques such as wick drains, dynamic compaction and preloading
- Measuring settlement of tank bases
- Monitoring mine induced subsidence

Specifications

Settlement range	5 ¹ , 10 ¹ , 20, 35, 50, 75 m
Transducer type	Vibrating wire or fiber optic
Maximum overpressure	1.5 × range
Accuracy²	±0.5% F.S. (±0.1% F.S. optional)
Resolution	0.025% F.S. (min.)
Thermal drift or transducer	±0.1% F.S. / °C
Reservoir	PVC and ABS
Fluid type	Water (optional antifreeze solution)
Thermistor	3kΩ (see model TH-T) – with vibrating wire transducers only
Twin tubing	Polyethylene, 1/4 in. X 0.170 in.
Cable	IRC-41A(P), IRC-390, CFO-3STD, CFO-9RF

¹ With IRC-41 AV cable. Available for VW transducers only

² Calibrated accuracy of the pressure transducer.

Ordering information

Please specify:

- Range and transducer type
- Cable type and length
- Twin tubing length
- Fluid type: water or antifreeze solution
- If length of tubing exceeds 300 m, contact manufacturer for selecting adequate tubing size

Optional Accessories

- Readout instruments: MB-3TL, SENSLOG