



Rebar Strain Meter



The Rebar Strain Meter is designed to be embedded in concrete for the purpose of measuring concrete strains due to imposed loads. It is welded into, and becomes an integral part of, the existing rebar cage.

The rebar extensions on either side of the central strain gaged area are long enough to ensure perfect contact with the surrounding concrete so that the measured strains inside the steel are equal to the strains in the surrounding concrete.

In use, rebar strain meters are usually installed in pairs on either side of the neutral axis of the structural member being investigated. This is done so that bending moments can be separated from axial loads. A built-in thermistor enables the measurement of temperatures and aids in the evaluation of thermally induced strains.

The main advantage of the Rebar Strain Meter lies in its ruggedness. It is completely waterproof and virtually indestructible so that, if the cable is adequately protected, it is safe from damage during the concrete placement. The single vibrating wire strain sensor located along the axis of the strain meter is not affected by bending of the strain meter itself. It has the advantage of all vibrating wire sensors, namely: long term stability, can be used with long cables and is relatively unaffected by moisture intrusion into the cables.

specifications

DESCRIPTION	SPECIFICATION
Standard Range	2500 $\mu\epsilon$
Resolution	0.4 $\mu\epsilon$
Accuracy	$\pm 0.25\%$ F.S.
Nonlinearity	<0.5% F.S.
Temp. Range	-20°C to +80°C
Rebar Sizes (mm)	15, 20, 22, 25, 30, 35
Length	1105 mm (43.5 in.)
Output (approx.)	1800-2800 Hz

ordering info

ITEM	PART #
Vibrating Wire Rebar Strain Meter - 15 mm	VW5000-15
Vibrating Wire Rebar Strain Meter - 20 mm	VW5000-20
Vibrating Wire Rebar Strain Meter - 22 mm	VW5000-22
Vibrating Wire Rebar Strain Meter - 25 mm	VW5000-25
Vibrating Wire Rebar Strain Meter - 30 mm	VW5000-30
Vibrating Wire Rebar Strain Meter - 35 mm	VW5000-35
Vibrating Wire Rebar Strain Meter with Coaxial Sensor - 22 mm	VW5001-22
Vibrating Wire Rebar Strain Meter with Coaxial Sensor - 25 mm	VW5001-25
Vibrating Wire Rebar Strain Meter with Coaxial Sensor - 30 mm	VW5001-30

RST Instruments Ltd. reserves the right to change specifications without notice.



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applications

- Concrete piles and caissons.
- Slurry walls.
- Cast-in-place concrete piles.
- All concrete structures.
- Concrete foundation slabs and footings.

features

- Long term stability in difficult environments.
- High accuracy and resolution.
- Waterproof.
- Rugged design.
- Not affected by cable length.

