



MODEL SME-2260

## VIBRATING WIRE BASE SUPPORT LOAD CELL

### FEATURES

- \* Negligible positioning effect.
- \* Accurate & reliable.
- \* Long term stability.
- \* Easy installation.
- \* Rugged construction.
- \* Hermetically sealed.
- \* Longer cable lengths.
- \* Intrinsically safe certified by CMRI/DGMS Dhanbad.



### APPLICATION

Base support load cells are very reliable for compression loads measurement for the following load application:

- \* To monitor load under roof bed in mines and underground excavation.
- \* To monitor load at rib supports in tunnels.
- \* To monitor load at crown of rib supports in tunnels.
- \* To monitor compressive load in pile foundation.

### DESCRIPTION

Vibrating wire base support load cells are very useful and provide important data when they are used in compressive load applications. These are available in three gage wire or six gage wire construction to eliminate positioning effect or tilt effect. The average of three or six independent gage data provides very accurate load measurement. It has very nominal positioning effect due to three or six gage construction.

These have very rugged construction. Three or six pretension wires are positioned at 120 degree spaced vertically on the periphery of a cylindrical stainless steel element of load cell. When a compressive load acts on the load button, the gage wire get compressed and tension in wire reduced and simultaneously length of gage wire. This changes the natural frequency of the wire. Vibrating wire

readout model SME 2460-S provides a low voltage pulse signal to a magnetic coil near gage wire, which interns makes wire to vibrate at its natural frequency. The readout selects the frequency Corresponding to peak voltage generated in the coil being the resonate frequency. Readout unit indicates the signal in terms of frequency, time period, or load direct in engineering units such as tons.

## ADVANTAGE

Multi gage system in load cells eliminates positioning effect to minimum average of load and provides accurate load measurement. The vibrating wire technology provides data unaffected by cable lengths, junction resistance and stray currents. Remote data can be taken as from as one km. cable length without affecting the original data.

## SPECIFICATIONS

Capacity	:	10 tones to 200 tones
Accuracy	:	±1% FSD/ (0.5% FSD on demand)
No. of gages	:	3 or 6
Resolution	:	0.01% fsd
Intrinsically safe	:	<u>The load cell tested by CMRI Dhanbad as per IS/IEC 60079- 11:2006 for intrinsically safe for use in gas group I atmospheres &amp; approved by DGMS vide approval no. SA-4/2013</u>

## ACCESSORIES

- \* Mounting plate
- \* Readout unit Model SME 2460-S
- \* Terminal boxes

Due to continuous development program the specification and dimensions are subject to change without notice. Our engineers do undertake the work for development as per the customer's requirement.

## Sensors & Measurements Enterprises

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