VW LOAD CELL

INTRODUCTION:

The VW Load Cell of PMT is designed and developed to measure:

- Loads in tiebacks, struts, rockbolts and anchors.
- Loads in supporting systems such as retaining walls, tiebacks and anchors.

Anchor load cell are used for measuring the actual loads on the tension in cable anchor and rockbolts makes it possible, use a lower safety factor in designing calculation, thereby reducing the number of anchors without diminishing actual safety.

FEATURES:

- Rugged and waterproof construction.
- Withstand and measure eccentric load.
- High stability and sensitivity.
- Versatile design – fit all types of rockbolts, tiebacks, struts, or arch supports.
- Not effected by cable length and resistance.


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DESCRIPTION:

The VW load cells are composed of three VW gauges mounted parallel to each other equally spaced in a ring in cylinder of heat treated steel alloy.

When load is applied on the cell, change in tension of the gauges causes change in the frequency that is induced by a plucking coil. The average of the reading from the cells represents the mean load on the anchor, minimizing the effects of eccentric loading.

For the most reliable results, the bearing plates should be cast with its upper and lower face flat and perpendicular to the anchor and the anchor should be centralized. The bearing plates help to keep distributing load on the anchor without bending or yielding.

SPECIFICATIONS:

Model	1001V-LC
Sensor element	VW sensor
Capacity	Up to 150T
Resolution	0.01% FSR
Accuracy	+/- 0.5% FSR
Operating temperature	-20^{0}C to 85 ^{0}C
Built in temperature device	Standard: RTD Optional: Thermistor
Temperature device range	RTD:- 45 to 100^{0}C Thermistor:-30 to 80^{0}C
Temperature device accuracy	RTD: +/- 0.7^{0}C Thermistor: +/-1^{0}C
Waterproof	105mH$_2$0
Materials	All stainless steel
Lightning protection device	Gas tube arrester (Frequency output lines)
Signal cable	6 core shielded cable with PVC jacket
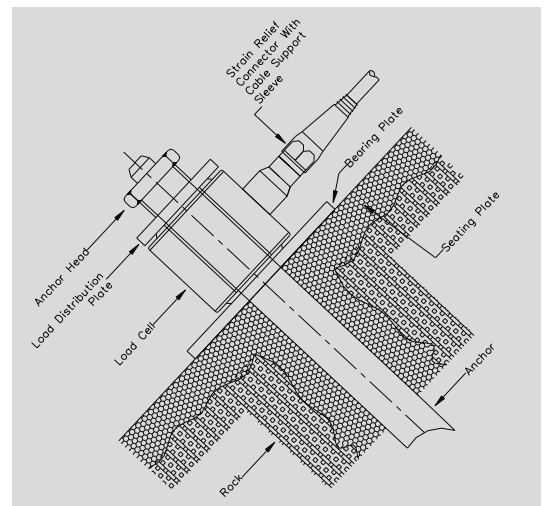
SETUP

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