

## TENSMEG: Tension Measuring Gauge for 7-Wire Strands

### Description

**NOTE: This is a legacy and discontinued product not available for order.**

The TENSMEG (tension measuring gauge) for monitoring strains in 7-wire strands, is an elongated spiral strain gauge comprised of a Teflon® coated resistive wire, extending between two hard, rubber end anchors. The TENSMEG is an accurate and cost-effective means to examine load and strain in rock and soil anchors, and also in cable bolts used for rock support. Pre-stressed and post-tensioned concrete load and strain may also be effectively measured.

Due to its construction, the resistance wire is precisely inserted into the spiral grooves of the 7-wire strand used for anchors and therefore is well protected. The gauge has an excellent linear response, accuracy, and long term stability with water resistance capability. Specifications are unaffected when the TENSMEG is surrounded by cement grout or embedded in concrete structures.

The QB120 Resistance Strain Gauge Readout, reads, displays, and logs 1/4 bridge strain gauges. It is also the intended readout for the TENSMEG.

### TENSION MEASURING GAUGE SPECIFICATIONS

ITEM	SPECIFICATION
Full Scale Tension	Exceeds 50,000 $\hat{1}\hat{4}\hat{\mu}$
Full Scale Compression	3000 $\hat{1}\hat{4}$ , dependent on level of pre-tension applied during installation
Resolution	1 $\hat{1}\hat{4}\hat{\mu}$
Accuracy	2% F.S.
Length	48 cm (18.9 in) - other lengths available upon request
Gauge Factor	2.0 nominal
Gauge Resistance	120 Ohm
Excitation Voltage	1 V - 10 V DC
Initial Creep	Less than 30 $\hat{1}\hat{4}\hat{\mu}$ , 48 hrs. after installation
Total Creep	Less than 100 $\hat{1}\hat{4}\hat{\mu}$ , 3 months after installation
Yield Limit of Resistance Wire	4,000 - 18,000 $\hat{1}\hat{4}\hat{\mu}$ depending on gauge length
Maximum Water Pressure	Tested to 2 MPa
Temperature Effect	Less than 1 $\hat{1}\hat{4}\hat{\mu}$ / $\hat{A}^{\circ}\text{C}$ (-10 $\hat{A}^{\circ}$ to 75 $\hat{A}^{\circ}\text{C}$ )
<b>SPECIFICATIONS</b>	