

# Vibrating Wire Readout

### Applications

The Model GK-404 Vibrating Wire Readout can be used with all of Geokon's vibrating wire gages and transducers in all kinds of weather conditions. The user friendly GK-404 provides the following...

- Handheld portability
- Easy operation
- High accuracy and resolution
- AA battery power
- Cold weather operation



- The Model GK-404 is easily held and operated with one hand.



- Close-up of the Model GK-404 Vibrating Wire Readout control panel and LCD display.

### Operating Principle

The Model GK-404 Vibrating Wire Readout is a portable, low-power, handheld unit that is capable of running for more than 20 hours continuously on two AA batteries. It is designed for the readout of all Geokon vibrating wire gages and transducers.

The Model GK-404 provides 6 excitation positions (A-F) with a display resolution of 0.1 digit. It is capable of displaying the reading in either digits, frequency (Hz), period ( $\mu$ s), and in the case of strain gages, in microstrain ( $\mu$  $\epsilon$ ), for positions C, D & E. The GK-404 also displays the temperature of the transducer with a resolution of 0.1 °C.

### Advantages and Limitations

The Model GK-404 has a sealed enclosure and a four-switch membrane keypad that can be easily operated with one hand.

The Model GK-404 is very useful for setting up and testing gages prior to installing more complex monitoring systems (e.g. dataloggers, etc.)

The 16  $\times$  2 character LCD display allows the user to adjust backlight and contrast.

Power is provided by two AA batteries. Power features include an automatic power-off option and a battery monitor with display and low battery warning. Settings are retained between power-on's.

This readout does not have data storage capabilities.



● Closeup of the Model GK-404 with banana-jack connections.



● Multiple vibrating wire sensor cables can be connected to the Model 4999 Terminal Box (shown above), which provides one central location for easily and quickly taking sensor readings with the GK-404.



● Model GK-404 dimensions (shown at actual size).

### System Components

The Model GK-404 is supplied complete with patch cord and 2 AA batteries.

As an option to eliminate the need for a patch cord and alligator clips, banana jacks can be provided, which connect to banana plugs attached directly to the sensor leads (please specify at time of order).

Switch boxes are also available, to which several vibrating wire sensor cables can be connected, allowing convenient and rapid reading with the Model GK-404.

### Technical Specifications

Display Resolution	(period) 0.1 microsecond (strain) 1 microstrain (Hz <sup>2</sup> × 10 <sup>-3</sup> ) 0.1 digit (temperature) 0.1°C
Measurement Accuracy	(vw sensor) 0.025% F.S. (temperature) 1.0% F.S.
Timebase Accuracy	±50 ppm
Excitation Range	400 Hz to 6000 Hz, 5 Volt Square Wave
Temperature Range	-20°C to +50°C
Battery	(type) AA Alkaline (requires 2) (life) 20 hours at 20°C
Weight	145 g
L × W × H	120 × 65 × 22 mm



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