



Model GK-404 Vibrating Wire Readout

The Model GK-404 Vibrating Wire Readout is a portable, low-power, handheld unit that is capable of running (continuously) for more than 20 hours on two AA batteries. It is designed for the readout of all GEOKON vibrating wire gauges and transducers, and is capable of displaying the reading in digits, frequency (Hz), period (μ s) or microstrain (μ ϵ). The GK-404 also displays the temperature of the thermistor embedded in the transducer (if applicable) with a resolution of 0.1 °C.

Specifications

Excitation Range	400 Hz to 6000 Hz, 5 volt Square Wave
Resolution	0.1 digit, 0.1 Hz, 0.1 μ s , 1 μ ϵ , 0.1 °C
Timebase Accuracy	\pm 50 ppm
Temperature Range	-20 °C to +50 °C
Dimensions (L x W x H)	120 x 65 x 22 mm



Model 404 Intrinsically Safe Vibrating Wire Readout

The Model 404, based on the GK-404 (above) and designed in cooperation with GEL Instrumentation, is a portable, low-power, hand-held unit, capable of running (continuously) for more than 6 hours on a single charge. The Model 404 is designed for use in hazardous environments (IECEx ia, approval SIM 13.0014X) and is only approved to read designated GEOKON vibrating wire sensors, identified as Type 1, 2, 3 and 4. Six excitation positions (A-F) are provided, with a display resolution of 0.1 digit. The Model 404 is capable of displaying the reading in either digits, frequency (Hz), period (μ s) or microstrain (μ ϵ). The 404 also displays the temperature of the thermistor embedded in the transducer (if applicable) with a resolution of 0.1 °C.

Specifications

Excitation Range	400 Hz to 6000 Hz, 5 volt Square Wave
Resolution	0.1 digit, 0.1 Hz, 0.1 μ s , 1 μ ϵ , 0.1 °C
Timebase Accuracy	\pm 50 ppm
Temperature Range	-20 °C to +40 °C
Dimensions (L x W x H)	165 x 110 x 45 mm



Model GK-405 Vibrating Wire Readout

The Model GK-405 comprises a battery powered readout unit that communicates via **Bluetooth®** with the Model FPC-2 Field PC running the GK-405 application. It is designed for the readout of all GEOKON Vibrating Wire sensors and is cable of displaying the reading in digits, microstrain (μ ϵ) and microseconds. The GK-405 also displays the temperature of the thermistor embedded in the transducer (if applicable) with a resolution of 0.1° C. Readings can be stored and exported to a number of different file formats, and syncing to a host computer is easily done. The GK-405 Readout is available with or without the FPC-2.

Specifications

Excitation Range	450 Hz to 6000 Hz, 5 Volt Square Wave
Resolution	0.001 Hz
Timebase Accuracy	\pm 50 ppm
Temperature Range	-10 °C to +50 °C
Dimensions (L x W x H)	210 x 165 x 185 mm



Model FPC-2 Field PC

The Model FPC-2 is a rugged, handheld, easy-to-use field PC that is particularly useful in harsh environments, too extreme for a typical laptop PC. It can read Digital Inclinometer Probes and Tiltmeters when used in conjunction with Model GK-604D, and Vibrating Wire Sensors when used in conjunction with Model GK-405. The FPC-2 is a stand-alone device for reading Model 3810A Addressable Thermistor Strings and the Model 6101D MEMS Digital Tiltmeter. It can also be used to take compass bearings (with Inclinometer Probes) and to program and retrieve data from Model 8002 (LC-2) Series Dataloggers using LogView Mobile software.

Specifications

Processor	Texas Instruments 4470 dual-core @ 1.5 GHz
Operating System	Microsoft® Windows® Embedded Handheld 6.5.3
Memory/Disk	1 GB RAM/4 GB iNAND Flash
Battery	Li-ion, 3.7 V 5200 mAh (19.2 Wh) (Warm-swappable) with smart gauge
Operating Temperature	-30 °C to 60 °C, MIL-STD-810G, 501.5/502.5 Procedure II and III
Dimensions (L x W x H)	191 x 80 x 35 mm



Model GK-406 Vibrating Wire Analyzer

The GK-406 is field ready and used to quickly measure a sensor, save the data, and communicate the results with custom PDF reports and spreadsheet output. The VWA uses spectral-analysis technology (VSPECT™), which can be helpful for reading sensors in electrically noisy environments. The large color display offers an easy-to-view graphical presentation of the sensor output and operation, and a Project File maintains Site/Sensor information for 40 unique sites, with up to 22 sensors per site. Site/Sensor locations are geolocated, allowing the internal GPS to guide a user directly to a sensor location.

Specifications

Resolution	0.001 Hz RMS
Excitation	2 V, 5 V, 12 V (user selectable)
Accuracy	±0.005% of reading
Battery	Five AA (1.5 V)
Temperature Range	-20 °C to +70 °C
Dimensions (L x W x H)	200 x 100 x 58 mm



Model GK-502 Load Cell Readout

The Model GK-502 Load Cell Readout is designed to read 4- and 6-wire GEOKON Model 3000 load cells (see page 11). The readout incorporates a 12 Volt, 1.4 Ahr Sealed Lead Acid battery, 16 x 2 graphic LCD with backlight, membrane keypad, and battery charger circuit. Two side-mounted **Bendix**® connectors are provided for load cell and communications/battery charger connection. The GK-502 displays the output in Digits, mV, mV/V, or in engineering units (lbs, Kg, Kips, etc.) by entering a gauge factor and zero reading.

Specifications

Range	±31250 digits
Resolution	±1 digit
Accuracy	±0.05% F.S. (±30 digits)
Power Requirements	12 VDC @ 22 mA (operating); 12 VDC @ 16 mA (off)
Operating Temperature	-30 °C to +50 °C
Dimensions (L x W x H)	102 x 165 x 232 mm (enclosure)



Model RB-500 MEMS Readout

The Model RB-500 MEMS (Micro-Electro-Mechanical Systems) Readout is designed to read the voltage output from MEMS sensors. The RB-500 incorporates a 12 volt, 1.2 Ahr lead acid battery, a 4½ digit liquid crystal display (LCD), a power on/off switch and an A/B selector switch. The RB-500 supplies +12 V power to the MEMS sensor and displays the sensor output in volts, which is proportional to the angle of inclination.

Specifications

Range	±4.000 volts
Display Range	±1.999 volts
Resolution	1 mV
Accuracy	±0.06% F.S.
Power Requirements	12 VDC @ 50 mA
Operating Temperature	-30 °C to +50 °C
Dimensions (L x W x H)	102 x 165 x 232 mm (enclosure)



Model 4999 Terminal Box

The Model 4999 Terminal Box allows instrument leads to be grouped in one convenient location, thereby saving time when readings have to be made on a number of instruments. Housed in a fiberglass enclosure, the Terminal Box provides a quick and easy means of taking sensor readings. The Terminal Box can handle up to sixteen 4-conductor sensors (e.g. 16 vibrating wire gauges with their thermistors) or thirty-two 2-conductor sensors (e.g. 32 vibrating wire gauges). It's protected from lightning damage by plasma surge arrestors and a suitable earth-ground connection. (4 and 8 channel Terminal Boxes also available.)

Specifications

Switching Current	0.25 A (typical), 4 A (maximum)
Contact Resistance	50 mΩ (maximum)
Insulation Resistance	> 10,000 MΩ
Switch Life	> 25,000 cycles
Enclosure	NEMA 4X fiberglass
Temperature Range	-20 °C to +80 °C
Dimensions (L x W x H) ¹	342 x 301 x 160 mm

¹Does not include mounting feet. Other sizes and configurations available (please contact GEOKON for details).



Model 4999-12L/E LAB3 Surge Module

The Model 4999-12L/E LAB3 Surge Protection Module is designed to protect GEOKON transducers, dataloggers and power supplies from short duration, high voltage surges that may be induced in the transducer or interconnecting cables. Protection is provided by circuitry including tripolar plasma surge arrestors, transient suppression diodes and inductors.

Specifications

Breakdown Voltage	6 V, 16 V or 30 V nominal
Peak Current	10 kA (20 μs) maximum
Temperature Range	-20 °C to +80 °C
Dimensions (L x W x H)	160 x 74 x 76 mm