



### READOUT VIBRATING WIRE



Systel Vibrating Wire Readout Box model SIS I-100 is a portable unit that is designed for the readout of all vibrating wire gages and transducers, and is capable of displaying the reading in digits, frequency (Hz), period ( $\mu$ s), or microstrain ( $\mu\epsilon$ ). The readout also displays the temperature of the transducer (embedded thermistor) with a resolution of 0.1°C. All readings can be transmitted to a host computer and imported into spreadsheet and database applications.

### FEATURES:

- Robust, waterproof, easy to operate, low cost
- Display measured parameter frequency, frequency squared, time period
- Display the measured parameter directly in proper engineering units
- Storage facility for calibration coefficients of up to 700 reading of 100 transducers.
- A battery backed real time clock is provided for time and date stamping of each measurement stored.
- The read-out unit provides non-linearity correction using polynomial constants.
- Powered with internal 6 V rechargeable SMF batteries.

### IMPORTANT FEATURES:

- Robust, waterproof, easy to operate and low cost.
- Display the measured parameter in
- RS-232C serial output to connect a serial printer or IBM compatible PC.

### DESCRIPTION:

It can display the measured frequency in terms of time period, frequency, frequency squared or the value of the measured parameter directly in proper engineering units. Standard engineering units, which can be displayed, are  $\mu$ s (micro-strain), ksc (kg/cm<sup>2</sup>), kg, t, mm, m, C and deg. For sensors provided with an YSI 4405 or Dale 1C3001-B3 or Alpha 13A3001-B3 3 kW thermistor, the temperature can be displayed directly in deg C.

The stored readings can either be uploaded to a host computer using the serial interface or can be printed out on any text printer equipped with a RS-232C serial communications interface. The gage reading is displayed on a LCD dot matrix alphanumeric display, 16 characters x 1 line. The display is used to show the measured value and also for communication with the operator during data entry. A 16 key weather sealed membrane keypad is provided for data entry, set-up, storage, recall and other functions. An internal 6 V rechargeable sealed maintenance free battery is used to provide power to the indicator.



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ISO 9001-2008 Certified

A Fully charged new battery provides nearly 60 hours of operation on a single charge. A red lamp marked 'Low Batt' provided near the display lights up to indicate that the remaining battery power is less than 15 % of its rated capacity. A separate battery charger is provided with the SIS I-100 to charge the internal battery.

The read-out unit is housed in an enclosure with weatherproof connectors for making connections to the transducer and the battery charger.

#### **TECHNICAL SPECIFICATION**

##### **POWER SUPPLY**

Internal rechargeable SMF Battery 6V 4Ah, 220 VAC $\pm$  10% & Charger adopter

##### **INPUT**

Any two-wire vibrating wire type Transducer with 110-150  $\Omega$  sensor coil and 3 k $\Omega$  temperature sensor thermistor.

##### **DISPLAYED PARAMETER**

Frequency, frequency square, time period and engineering units. Standard engineering units, which can be displayed, are  $\mu$ s (micro-strain), ksc (kg/cm<sup>2</sup>), kg, t, mm, m, C and Deg.

##### **TEMPERATURE MEASUREMENT**

Temperature measuring range: 20<sup>0</sup> to 60<sup>0</sup>. Only external 3 k $\Omega$  thermistor.

##### **CPU**

Philips AT 89S52 or 89C51- 8 bit micro controller

##### **DISPLAY**

16 character X1 line alpha numeric LCD Display

##### **KEYBOARD**

16 key micro switch, keys are multi function

RTC A real time clock automatically stored data and time while storing data

##### **HOUSING**

205X165X130 mm Aluminum Plastic coated box and cover, shield with rubber joint DVST with a pocket and carry strip.