

VIBRATING WIRE HANDHELD READOUT

DATASHEET RO-1-VW-3

PRODUCTS



FEATURES

- Lightweight (less than 500 grams)
- Compact (260 x 125 x 50mm)
- Runs on standard AA batteries (disposable or rechargeable)
- 4 sweep ranges means nearly all VW sensors can be read
- User selectable reading units
- Direct reading of temperature in degrees Celsius
- Display backlight



The Vibrating Wire Handheld Readout is a highly portable, lightweight device which can read most commercially available vibrating wire sensors. It is powered by standard AA cells and has a long battery life and an automatic switch off function. It is designed for one-handed operation for ease of use.

Four independent sweep ranges are selected via the front panel and the readings can be displayed in Hz, $F^2/1000$ or period units.

The readout can also read thermistors if fitted to the instrument, with the reading being displayed alongside the elected VW unit, in degrees C. For use at night, a display backlight can be switched on and off.

The VW Handheld readout is manufactured from durable ABS plastic, has an IP66 rating and is supplied with a protective TPE rubber housing. It is ideally suited to the rigours of a hard site life and can be used in all weathers.

TECHNICAL APPLICATIONS

THE SOIL INSTRUMENTS VIBRATING WIRE HANDHELD READOUT

The Vibrating Wire Handheld Readout can read any Vibrating Wire sensor which operates between 400Hz and 6000Hz, in reality this covers almost all VW sensors made by any manufacturer. It can display units in Frequency: Hz, Frequency²/1000 or Period, making the subsequent reduction of data to engineering units a simple task. The Vibrating Wire Handheld Readout is supplied with a fly lead which connects to the readout via a Lemo plug and socket. The standard lead terminates in 4 'crocodile' clips, two for VW reading and 2 for thermistor. If a terminal box is being used, then Soil Instruments can supply the correct lead for that box.

The user connects to the instrument to be read, turns the readout on (it can be left on between readings, turning off automatically after 20 minutes), selects the sweep range and the units to be displayed and then takes the reading and the temperature. Data are displayed on a high resolution backlit twin line LCD display, which makes reading easy to read in all conditions including bright sunlight. If no thermistor is fitted to the instrument being read, then a 'no thermistor' prompt will appear in the display.



FOR DETAILS ON:

Vibrating Wire and temperature logger, see datasheet RO-1-VW-1.

Vibrating Wire logger, see datasheet RO-1-VW-2.

Vibrating Wire minilogger, see datasheet RO-1-VW-5.

SPECIFICATIONS

Excitation range	450 - 6000Hz 5 volt square wave
Excitation type	Frequency sweep via 4 x user selectable ranges
Accuracy	±1Hz
Resolution	0.1
Display units	Hz, F ² /1000 or Period x 10 ⁷
Operating temperature	-10 to +50°C

THERMISTOR

Thermistor type	3kΩ
Thermistor range	0 to +60°C
Thermistor accuracy	±0.5°C
Thermistor resolution	0.1°C

BATTERY

Battery size	4 x AA, LR6, MN1500
Battery life ¹	12 hours continuous use
IP rating	IP66
Auto power off	20 minutes from last button press
Display	LCD, back light, 60 x 15mm, 2 rows of 16 characters

DIMENSIONS & WEIGHTS

Dimensions	L=260mm x W=125mm x H=50mm
Weight	490g

¹Dependant on battery type.

ORDERING INFORMATION

PART NO.	DESCRIPTION
RO-1-VW-3	Vibrating Wire handheld readout
RO-1-VW-2.7	Readout to terminal box flylead

CONTACT DETAILS:

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This information is intended as a general guide. For full installation instructions please refer to the relevant user manual. Our staff are available to provide technical support or to carry out complete installations as required.