

PiezoMeter System PM100 Technical Specification

Piezoelectric d_{33} Testing System

Measuring d_{33} in two ranges, with 0.1pC/N resolution

Piezoelectric Tests	General Operation	Remote Operation
d_{33} - High Range d_{33} range: 10 to 1000 pC/N Accuracy: $\pm 2\% \pm 1$ pC/N Loading: 1.0uF	Response Time d_{33} Only: 5s to 1% of final reading	The PiezoMeter may be controlled by a computer, equipped with Windows 98, Windows 2000, or Windows XP. A free serial port is required. All PiezoMeter functions may be controlled.
d_{33} - Low Range d_{33} range: 1 to 100 pC/N Accuracy: $\pm 2\% \pm 0.1$ pC/N Loading: 1.0uF	Sample Size Maximum dimensions: 50 mm in polarisation direction. 68 mm perpendicular (i.e. maximum diameter of a symmetrically supported disc is 136 mm)	Remote control software for Windows, supplied separately.
d_{31} & d_{15} Adapters are available for various sample g	Maximum sample mass: 1 Kg with standard suspension.	Remote Interface Industry standard RS-232C interface, configured as data terminal equipment (DTE) using 9 pin D-connector. RS-232 parameters: 9600 baud, 1 stop bit, no parity. Connection is by a standard PC serial file transfer cable (supplied).
Polarity Sample polarity is indicated for both measurement ranges.	Different suspension mechanisms can be provided to special order for more massive samples or very thin or soft samples.	Printer Interface Industry standard parallel printer interface, using 25 pin D-connector, configured as for a standard PC. Connection is by a standard PC printer cable (supplied).
Test Frequency Frequency Range: 30 Hz to 300 Hz Setting: steps of: 1 Hz Accuracy: ± 0.1 Hz Calibration is at 110 Hz. Other frequencies may be used to tune away from system resonances with large samples.	Calibration The system is supplied fully calibrated and tested. d_{33} calibration may be checked using the reference sample provided. In normal use, recalibration is recommended annually. Calibration may be carried out to customer supplied reference samples using the remote interface.	Power supply 220-240V a.c. 50-60Hz 0.5A or 100-120V a.c. 50-60Hz 1A (Specify with order).
Force amplitude Testing is by an oscillatory force of approximately 0.25 N Static force of approximately 10 N used to grip the sample. This may be different for force head units with non-standard suspension (see section on 'Sample Size' below).	Data Storage The standard PM100 will store up to 100 measurements. All results are numbered and stored along with the test frequency and the measurement range in use. Data is retained when the PiezoMeter is switched off.	Temperature Limits Storage: 0°C to 50°C Operating: 10°C to 40°C System calibrated: 25°C
	Stand-Alone Operation 40 character by 4 line alphanumeric liquid crystal display showing sample number, d_{33} , test frequency and operation mode. Simple key pad to control all PiezoMeter functions for stand-alone operation. Printing facility when used directly with standard PC printer, providing tabulated output and statistical analysis.	Physical dimensions Electronics unit: 350 x 230 x 90 mm. Force unit: 145 x 150 x 175 mm. Total Unpacked Weight: Approx. 13 Kg. Total Packed Weight: Approx. 20kg.

For more details, or to arrange a demonstration, contact :-

European Union, UK and EEA: Piezotest Ltd Unit 204, 2 Old Brompton Road London SW7 3DQ UNITED KINGDOM Tel: +44 (0)20 7748 2248 Fax: +44 (0)20 7748 2249 e-mail: sales@piezotest.com	Asia Pacific & Global: Piezotest Pte Ltd 10 Anson Road #31-10 International Plaza (S) 088834 SINGAPORE Tel: +65 6714 6631 Fax: +65 6714 6632 e-mail: sales@piezotest.com
--	--