Charge Vibration Meter VM-1970

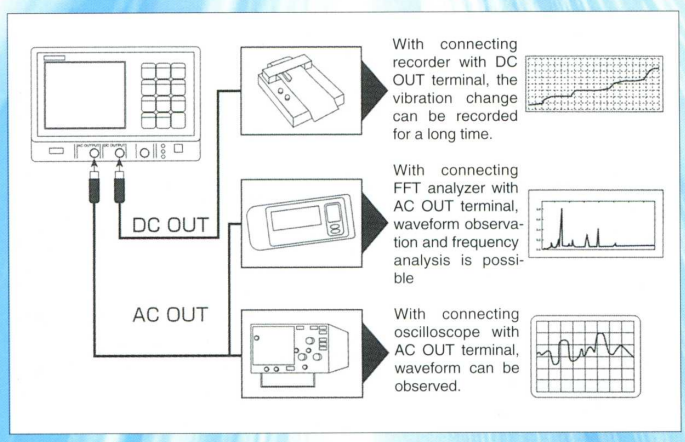
VM-1970 is the wide band digital charge vibration meter which covers frequency 1Hz to 100kHz.
All setting is interactive by the menu selection on the screen. Conversion of measuring value and change of unit is automatic. So it is free from troublesome operation and easy to reading.

■ FEATURES

- Display of measuring condition and decimal point of measured value and automatic conversion of units for quick data reading
- H-function is measurable for convenience of detecting bearing deterioration
- Alarm function is provided
  (Alarm contact output is option)
- Measurement of vibration severity in accordance with ISO-10816
- Frequency range of 1Hz ~ 100kHz
- Automatic data processing with GP-IB (option)

■ APPLICATION (Connection with external unit)

- AC OUTPUT (±5V at full scale, load≧10kΩ)
  Waveform output: Connect with oscilloscope, stroboscope, data recorder etc.
- DC OUTPUT (+5V at full scale, load≧10kΩ)
  Vibration level output: Connect with pen recorder



Accessories

No.	Name	Q'ty	Remarks
1	Power adapter	1	For 100VAC
2	Power adapter plug	1	
3	Output cable	1	1.5m
4	Small driver	1	(-) driver
5	Fuse	1	1A
6	Vinyl cover	1	
7	Instruction manual	2	

Option

No.	Name	Q'ty	Remarks
1	GP-IB board	1	
2	AUX output connector	1	For alarm contact
3	Down transformer	1	200/220/240V-100VAC

■ SPECIFICATIONS

Model	VM-1970
Input signal	Charge from accelerometer
Measuring Range Acceleration (ACC) Velocity (VEL) Displacement (DISP)	 1Hz ~ 100kHz (±3dB), 3Hz ~ 70kHz (±0.5dB) 3Hz ~ 6kHz (±0.5dB) 3Hz ~ 600Hz (±0.5dB)
Indication	EQP ,RMS value (ACC, VEL), EQP (DISP)
Measuring Range Acceleration (ACC) Velocity (VEL) Displacement (DISP) H-function	(When charge sensitivity 1.0~9.99pc/m/ s^2 is used.) 1,10,100,1000,10000m/s^2,5-ranges 3Hz~ 1,10,100,1000 cm/s 4-ranges 10Hz~ 1,10,100,1000 cm/s 4-ranges 30Hz~ 0.1,1,10,100,1000 cm/s 5-ranges 3Hz~ 1,10,100,1000 mmp-p 4-ranges 10Hz~ 0.1,1,10,100,1000 mmp-p 5-ranges 30Hz~ 0.01,0.1, 1,10,100 mmp-p 5-ranges Acceleration value by wave detection after passing band pass filter of 1kHz. Unit range is the same as acceleration.
Filter Characteristic	Low pass filter: (LOW.F):OFF (1Hz),3,10,30Hz High pass filter: (HIGH.F):300Hz,1,3,10kHz, OFF,(100kHz) Cut off characteristic: -18dB, butterworth
Indication	Rms: True rms value EQP: Sinusoidal wave equivalent peak value of average value PEAK: True peak value (option) P-HOLD: Hold of max. true peak value (option)
Alarm Function Alarm step Setting range Alarm output Contact capacitance	 1-step 0~110% of each range 1a relay contact output Individual TTL level output 30VDC, 0.5A, 120VAC, 0.5A
Output Waveform Output Level Output Calibration output	 0 ~ ±5V (with a load≧10kΩ) 0 ~ +5V (with a load≧10kΩ) 80Hz, Sinusoidal wave
Operating Condition	0 ~ 40°C, 0 ~ 85%RH
Power Supply Battery External battery AC Power supply	 aD 4-pcs, Life time: 10hrs approx. at continuous use 9 ~ 12 V, 100VAC ±15%, 50/60Hz, ≦20VA
Dimensions & Weight	200Wx150Hx290Dmm (without handle etc) 5Kg approx.