

Galvibro (미진동측정기)

VM-7000



SPECIFICATIONS

| 시양 / 제품번호 | VM-7000 |
|--------------------------------|---|
| Measuring Range | |
| Acceleration (ACC) | 0.3Hz ~ 300Hz |
| Velocity (VEL) | 0.3 ~ 300Hz 0.1, 0.3, 1, 3, 10, 30m/s ² 6-ranges |
| Displacement (DISP) | 3 ~ 300Hz 1, 3, 10, 30, 100 mm/s 5-ranges 3 ~ 100Hz 0.1, 0.3, 1, 3, 10mmp-p 5-ranges |
| Indication | EQP, RMS value (ACC, VEL), EQP (DISP) |
| Accuracy | |
| Frequency Response | Within ±5% (at 16Hz typical) |
| Sensitivity Error | Within ±5% (at 16Hz FS) |
| Sensitivity Switching Error | Within ±2% |
| Meter Linearity | Within ±1.5% of F.S. |
| Output | |
| Waveform Output | AC OUT 0 ~ ±1V (with a load ≥10k Ω) |
| Level Output | DC OUT 0 ~ +1V (with a load ≥10k Ω) |
| Power Supply | |
| Battery | 6F22:1pce, Life time:20hrs approx. at continuous use |
| External battery | 9 ~ 18 V, 20mA max. |
| AC Power supply | 100VAC (with optional AC adapter) |
| Calibration Output | 16Hz sinusoidal wave Level is adjustable using variable resistor in battery box |
| Dimensions & Weight | Main unit: 80W × 166H × 38Dmm, 320g Pickup: 45W × 45H × 45Dmm, 200g |

VM-7000 용도

- 건축물의 지반과 바닥진동의 전달평가
- 반도체 제조설비와 레이저 등 진동에 민감한 정밀기계의 설치환경 계측
- 교량등의 구조물 진동
- 수력발전기계 등 저속기계에서의 보수관리
- 승차하는 제품의 미진동 계측

진동 측정 장비

Signal Conditioner (다-채널 소음/진동 분석기)

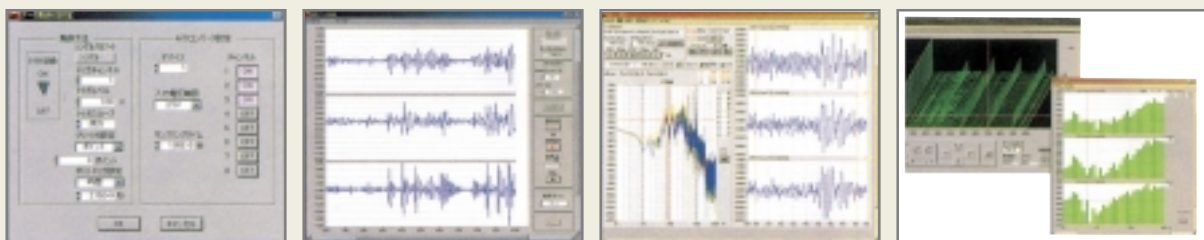
VM-5123/6



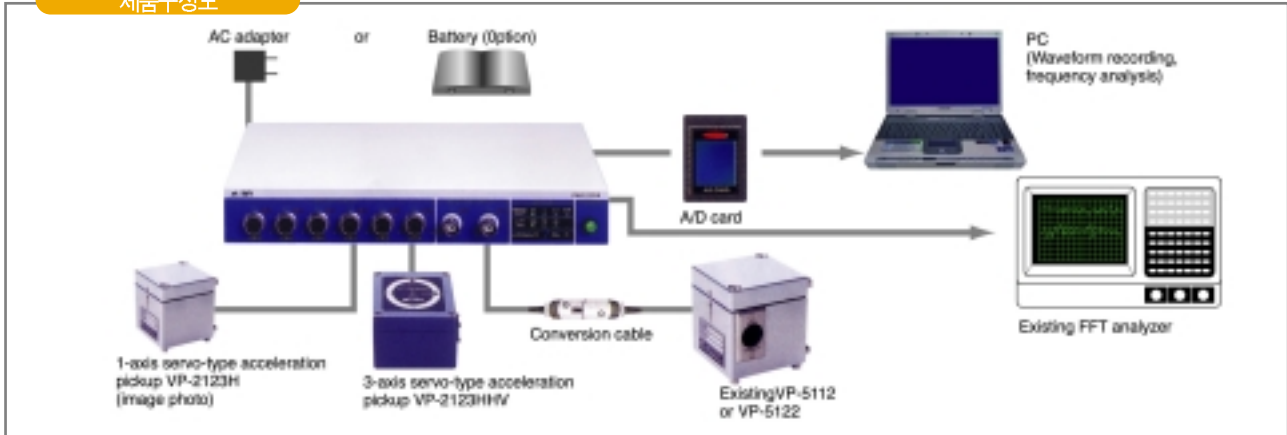
VM-5123/6 제품설명

- 8채널 소음진동분석
- FFT 분석기능, 1/1~1/24 octave band 분석기능
- 미진동 측정용 서보형가속도계 직접연결 가능
- 컴퓨터로의 빠른 데이터 전송

Data분석 Software



제품구성도



VM-5123/6 HARDWARE

Standard Function

| Item | Functions | Specifications | Remark |
|---------------------------|--|---|--------|
| Measurig Channel No. | Vibration input ×6 (CH1 ~ CH6) | Servo-type acceleration pickup (1-axis & 3-axis type available) | |
| | Voltage input ×2 (CH7 ~ CH8) | Voltage input from sound level meter, manometer, themometer and hygrometer etc. | |
| Input Coupling | CH1 ~ CH6 AC/DC CH7 ~ CH8 DC | CH1 ~ CH6 AC : 0.1Hz~DC, Zero adjustment, Gravity acceleration cancel function CH7 ~ CH8 DC only | |
| Frequency Response | CH1 ~ CH6 0.1Hz/DC~12Hz(±0.5dB) 0.1Hz/DC~30Hz(±0.5dB) 0.1Hz/DC~60Hz(±0.5dB) CH7 ~ CH8 DC ~ 12kHz(±0.5dB) DC ~ 50kHz(±0.5dB) | CH1 ~ CH6 Setting by variable low-pass filter (fc=20Hz,50Hz,100Hz) CH7 ~ CH8 Setting by ON/OFF of low-pass filter (fc=20kHz) | |
| Amplifier Measuring Range | CH1 ~ CH6 0.01m/s ² , 0.1m/s ² , 1m/s ² , 10m/s ² CH7 ~ CH8 Voltage signal of ±5V full scale | | |
| Output Signal | ±5 full scale waveform output | 2-system (for recorder, waveform recording, for analysis) | |
| Linearity | ±0.5% full scale | | |
| Range Error | ±2% | | |
| S/N Ratio | 60 ~ >100dB | >100dB (measuring range:10m/s ²) >96dB (measuring range:1m/s ²) >80dB (measuring range:0.1m/s ²) >60dB (measuring range:0.01m/s ²) | |
| Calibration Signal Output | Equivalent to 12Hz full scale | Calibrated at 0.01m/s ² range | |
| External Control | Measuring range: Low-pass filter | Control by TTL level signal | |
| Power Supply | 9 ~ 12VDC, 2A | | |
| Power Consumption | 4W | When picup is connected, 0.8Xaxis number is added | |
| Ambient Temperature | 0 ~ +50 °C | | |
| Outer Dimensions | 240(W) ×150(D) ×35(H)mm | | |
| Weight | 920g approx | | |

Optional Function

| Item | Functions | Specifications | Remark |
|-------------------------|-----------------------------|--|---|
| Hardware | Output Cable | Mini plug-BNC 1.5m | |
| | Battery Pack | Continuous drive >3hrs at 6-ch measurement | Battery for note PC |
| Waveform | A/D card | 16 bit, 8-ch | |
| Data Recording Software | Exclusive software analysis | Waveform data recording. analysis | Standard package/ full package |
| Analysis System | Note PC | Windows 98 model | Exclusive software install, operation check |

WAVEFORM DATA RECORDING, ANALYSYS SYSTEM SOFTWARE

Standard Function

| Item | Functions | Specifications | Remark | |
|-------------------|--|--|--|---|
| Recording | Recording Channel | Max. 8 | | |
| | Max. Sampling Rate | 50kHz / Channel number | | |
| | Recording Operation | Momentary recording, continuous recording | | |
| | Trigger Function | Single, Repeat | | |
| | Waveform Display | Time width 10,000 point fix | | |
| | Recording Time | Depends on available HDD space | Consumption(MB)= 4xsampling rate(Hz) × Channel No. ×Recording time(sec) ×10 ⁶ | |
| Analysis | Remote Control | Control of VM-5123/6 | Control of filter, measuring range | |
| | Time Series | Normal display | Zoom between cursor, Auto scale | |
| | Waveform Display | All data compression display | Thinning display | |
| | Time Series | Max. value, Min. value, Threshold | | |
| | Time Series | Waveform Search | | |
| | Time Series | Waveform Edit | Calculation between cursor | Average value, rms value, double amplitude, time difference |
| | | Any filtering | HPF, LPF, Band-pass, Band stop | |
| | | Differential. Integral function | 1-time differential, 2-time differential, 1-time integral, 2-time integral | |
| | | DC processing | Delete, Extract | |
| | | Calculation among channel | + - × ÷ | |
| | | Unit conversion | Any setting | |
| | | Envelop | | |
| | | Moving average | | |
| | Frequency Axis Display | Window function | Hanning, Hamming, Rectangular, FlatTop, Blackman | |
| Cursor function | | Frequency difference, level difference, rms value calculation between cursor | | |
| Zoom function | | | | |
| Analysis Function | Averaging function | Vector average, RMS average, peak hold, Waterfall | | |
| | Transfer function | | | |
| Text File Output | Time series wavefor, Frequency axis data | | | |
| Others | Temperate | Save of | | |
| | Save function | all environmental setting | | |

Optional Function

| Item | Function | Specifications | Remark |
|-----------|--------------------------------|---------------------------|--------------------------------------|
| Recording | Voice memo function | Wave data file generation | Sound board, microphone is necessary |
| Analysis | Sound sensitivity Compensation | A.B.C curve | |
| | Octave Analysis | 1/1,1/3,1/6,1/12,1/24 | |
| | Histogram Analysis | | |