Production Equipment Evaluation
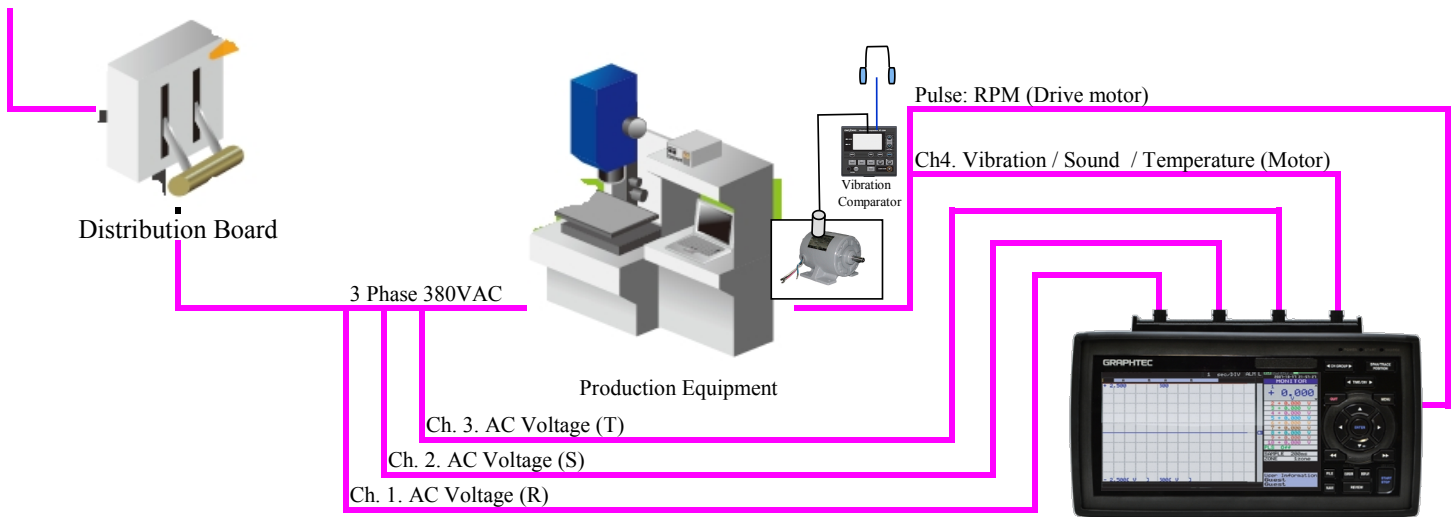## -GL2000 High Voltage (3 phase) Midi Logger-
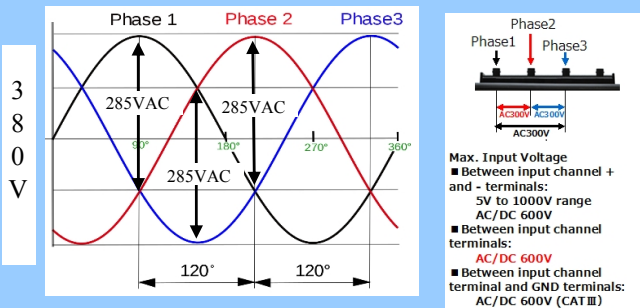
Proposal for preventive and corrective maintenance

Distribution Board

Pulse: RPM (Drive motor)

Ch4. Vibration / Sound / Temperature (Motor)

Vibration Comparator

3 Phase 380VAC

Production Equipment

Ch. 3. AC Voltage (T)

Ch. 2. AC Voltage (S)

Ch. 1. AC Voltage (R)

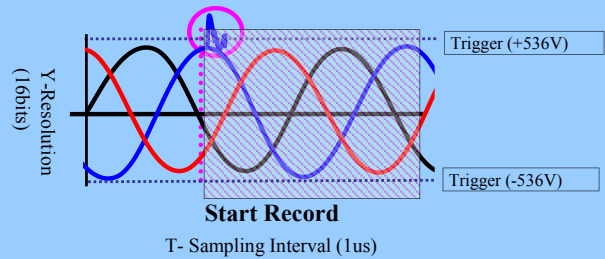## Why choose Graphtec GL2000?

Point 1: Three-phase power supply waveform measurement
Support 3-Phase 380V 50Hz Measurement (Typically in Factory)
High withstanding voltage upto AC/DC 600V

Phase 1 Phase 2 Phase3

380V

285VAC 285VAC
285VAC
90° 180° 270° 360°
120° 120°

Phase2
Phase1 Phase3

AC300V AC300V
AC300V

Max. Input Voltage
■ Between input channel + and - terminals:
5V to 1000V range
AC/DC 600V
■ Between input channel terminals:
AC/DC 600V
■ Between input channel terminal and GND terminals:
AC/DC 600V (CATⅢ)

What can be used for?
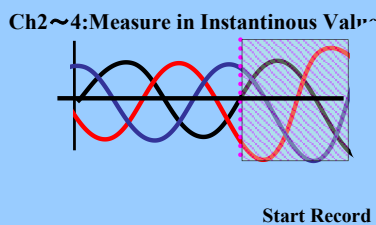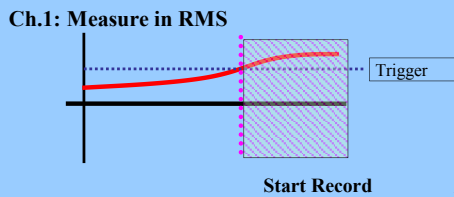Monitoring for 3-Phase 380V

Point 2: High speed 1 MS/s simultaneous sampling
Max 1MS/s (us) all the channels simonteniously.
High speed & High Resolution that can be seen!!

Y-Resolution (16bits)

Trigger (+536V)

Trigger (-536V)

Start Record

T- Sampling Interval (1us)

High Resolution means?
Oscilloscope 4 bit (2^4 = 16 div)   Data Logger 16bit (2^{16} = **65,536 div**)
8 bit (2^8 = 256 div)

What can be used for?
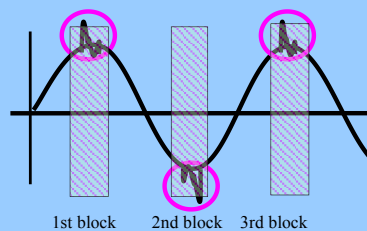Fast and micro variation: (Noise from power surge (Switching surge, Lighting surge)

Point 3: Realtime RMS (Root Mean Square) Measurement
Detecting AC Voltage fluctuation in RMS. Setting trigger when irregular signal happen.

Ch.1: Measure in RMS

Trigger

Start Record

<u>**Easy to set trigger**</u>

<u>**Data Size will be smaller**</u>

Ch2～4:Measure in Instantinous Value

Start Record

What can be used for?
DIP (Voltage Drop), Momentary Stop

Point 4: Block Segmentation of Built-in RAM
4MW RAM Memory will divide into 1, 2, 4, and 8 blocks
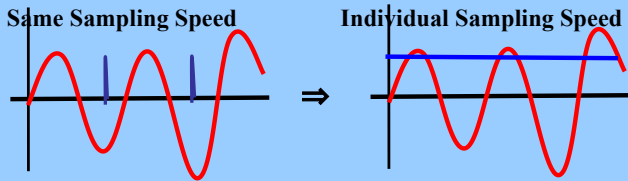Multiple events can be recorded!!

1st block   2nd block   3rd block

1.Block Segmentation
Max. 8 events can be recorded

2. Overwrite(Continuous)
New data saved and old date will be deleted.

3. Auto-back-up
RAM data will be auto-copy to Internal Flash memory

What can be used for?
We don't know when it will happen. Multiple event will happen.

Point 5: Individual Sampling Speed Setting for Pulse and Analogue input
The Rotation is slow, but analogue sampling need to be high speed.

Same Sampling Speed

Individual Sampling Speed

⇒

RPM Signal (10us)
Analogue Signal (10us)

RPM Signal (10ms)
Analogue Signal (10us)

What can be used for?
Actual RPM trend can be monitor (Especially for Slow RPM)

Point 6: Portable Design
Light weight, Battery operation, and tough design for on-site use

Battery Operation
1 piece : 5 hrs
2 pieces : 10 hrs

Protection Cover
Drop & Shock

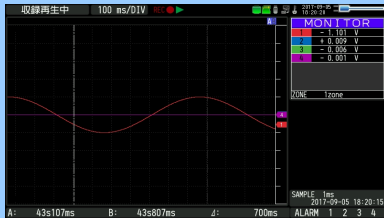**Light Weight:1.4kg**
250(W)x 161(H)x80(D)mm

In compliance with JIS Vibration Test Method for Automobile Type 1 Class A.

What can be used for?
Hand carry to on-site measurement.
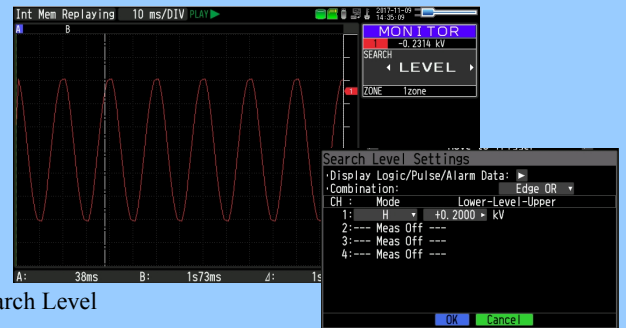
Point 7: On-site Data Review
Recorded data can be check on device (PC Free). 7.0 TFT (Wide Display) that can be seen!

■Data can be review while recording

■ Statistical Calculation

■Search Level

What can be used for?
The recorded data can be seen on-side. Simple analyze can be done on machine.