HALEX by TAKAMISAWA

気象庁検定品

Officially certified by
Japan Meteorological Agency

Equipped with long-period earthquake motion scale calculation function.
Equipped with real seismic intensity calculation method.

SEISMIC ACCELEROGRAPH + INTENSITY METER

GG-900 MODEL

This device uses a seismic intensity calculation algorithm stipulated by the seismic intensity meter technical data standards established by the Japan Meteorological Agency to automatically measure and display the seismic intensity scale from 0 to 7 when an earthquake occurs. It also displays various information associated with the earthquake. This product has a function to record and save data, as well as communication function to report that data to a higher-level system, and has passed the Japan Meteorological Agency Certification.

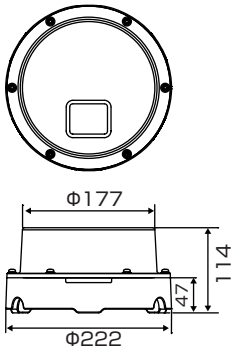
Specifications

Measuring Unit: GG-900 Specifications

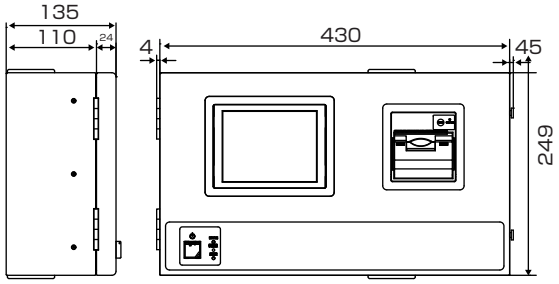
Item	Specifications
Sensor Type	Force serve type acceleration sensor
Measurement Components	3 components (X-axis, Y-axis, Z-axis)
Measuring Range	±4000Gal (However, the vertical component includes 980.665Gal of gravitational acceleration)
AD Converter	△Σ (Delta-Sigma) Converter
Formal Resolution	32-bit
Dynamic Range	132dB or more
Distortion	0.001 % or less
Scale Factor	0.6231 mGal/LSB
Sampling	100 Hz (3-components simultaneous sampling)
Low Pass Filter	Minimum Phase or Linear Phase fc=30 or 40Hz Selectable
High Pass Filter	fc=0.001 Hz, attenuation -6dB/oct
Off-set Cancel	Zero correction for installation inclination at startup
Output Data	Our original method earthquake trigger judgment calculation Waveform (100 sample/1sec x 3 components :WIN Format Compression)
Communication	RS422 38400bps,max cable length 400m ※ ※When using recommended cable KNPEV-SB-0.3sq-7P
Measurement Section Test	By command from the processing unit, each component + 980 Gal Conducted considerable vibration test
Pulse Synchronization	Measurement synchronization with 1PPS for time synchronization from the processor
Power Supply	DCI 5V (DCI 2V—DC1 (V), supplied from processor)
Anti-power outage	To be covered by built-in power back-up battery from processor
Dustproof/ waterproof	IP68 (IPX8 depth 2m /24 hours)
Outline Dimension	ϕ222 x H114 mm (excluding mounting bracket, cable, etc.) /3.6 kg

Dimensions (mm)

Measuring Unit: GG-900



Processor: GG-900



Processor: GG-900 Specifications

Items	Specifications
JMA Certification	Certified as to conform seismic intensity category of 7 on the calculation basis of specified algorithm by JMA
Calculation Data	Earthquake observation time, instrumental seismic intensity , scale of seismic intensity, max acceleration (3-components), max measured acceleration, max acceleration observation time, predominant period, SI value, response, long period ground motion.
Computation Interval	1sec (overlap calculation of 10 secs. per 1 second)
Seismic Intensity Scale	Seismic Intensity 0. 1 . 2. 3. 4. 5 weak. 5 strong, 6 weak. 6 strong. 7 (10 levels)0.0 ～ 7.5
SI Value	0-0 ～ 999.9kine (kine=cm/sec)
Long period earthquake motion	Period 1-7 secs., Rank 0-4, Absolute speed response
Acceleration	3 component composite 6403Gal, horizontal 2-component+4000Gal, vertical 1-component
Starting Method	3000Gal (980.665Ga ¦ =9.80665m/s2) Trigger Level Method (select from options below) Measured Seismic Intensity 0.00 ～9.99 (0.01 steps) 3 Component Composite acceleration 0.0 ˜ 9999.9Gal (0.1 Gal step) ※ SI Value 0.0 ～ 999.9kine (0.1 kine step) ※ Acceleration can be selected with or without bandpass filter
Display	5.7 Inch TFT color LCD with built-in touch panel, 6553 color back light automatic off / 1～9999 mins. (1min increments) Brightness adjustment 32 levels, continuous lightning 100,000 hours
Operation	Touch Panel Buzzer sounds , press-button life-span 1M times
Printing	Thermal Line Dot Printer 384 Dot, Recording width 48mm、Paper 58mm
Memory Card 1	Media CF Card 256MB Recording approx. 5,000 earthquakes ※ Earthquake information, waveform data (WIN32 Format)
Memory Card 2	Media MMC 32 GB Earthquake information, waveform data (WIN32 Format) Continuous waveform data recording (depends on settings)
Upper System Communication I/F	Serial 1 Port (RS232C) 1200bps ˜ 115.2kbps RS-232C/422 converter (option) can be installed LAN 2 Port (RJ45 Connector) 110 BASE-T/100BASE-TX/000BASE-T
External Device I/F	RS422 total extension distance 500m MAX (up to 4 units)
USB i/F	USB2.0
Clock Accuracy	1.9ppm time difference +0.00684 secs (ambient temperature 25℃)
Time Calibration	Automatic calibration using GPS receiver (error within + 1ms during calibration) Automatic calibration using NTP client Automatic or manual calibration by host system * Manual time calibration using panel
Web Server Function	Earthquake information, system information system
Power-supply Voltage	AC 220V±20V
Power Consumption	Stand-by: 16W (including measurement unit, excluding optional equipment) Charging: 25W (including measurement unit, excluding optional equipment) Battery used: Lead acid battery、12V/7Ah Back-up time : more than 4 hours (Including measurement unit, excluding optional equipment) Charging Method: Trickle charging method charging time : 1-2 hours or more
Outline Dimension	W430×D135×H249E(excluding protrusions <)/10