This product is available only for licensing. Please contact us for further details.

PRODUCT DESCRIPTION

Witness® 301 (patent pending) is a portable, microprocessor controlled, multi-functional data logger used as shipping recorder. It provides long autonomy and large data memory.

Witness® 301 has to be attached (as a "black box") to the sensitive merchandise's package and is suitable for terrestrial, naval or aerial transport monitoring. It helps the users in solving various problems generated to valuable goods by packing and shipping operations. It is a useful instrument in choosing the right method of transport in order to comply with the ISO 9000 prescriptions.
Monitoring the handling conditions of the merchandise and addressing insurance matters can be significantly simplified by using this device.

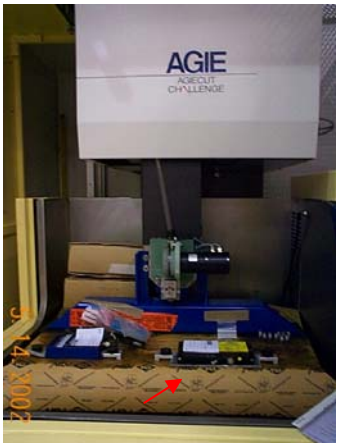
Witness® 301 is compact (170 x 31 x 64 mm, 0.3 kg without batteries) and low cost.

Witness® 301 can measure (through built-in sensors) and store important environmental parameters like shocks, temperature and humidity within programmable ranges. 2 other parameters can be monitored according to the user's needs.
The built-in clock helps the user to identify the exact time when a certain critical condition occurred and to track the shipping history of the merchandise.
It has a ruggedized construction (IP65) and a good measurement precision. By being password protected the recorded data cannot be tampered or cancelled by unauthorised persons.
It is designed according to EMI and safety standards. The estimated MTBF is 200'000 hrs.

Witness® 301 user software (operating under MS Windows 95, 98, NT, ME, 2000, XP, 7) and communication features allow a fast and complete analysis of the logged data.
The recorded histograms and peak values can be easily transferred (through an RS232 serial interface) and processed in a PC data base as tables or graphs.

APPLICATION EXAMPLES

Airplane body shipment monitoring-
Finmeccanica Group (Italy)



Machine tool shipment monitoring-
AGIE Charmilles Ltd. (Switzerland)

Packing system improvement-
CELTIBOX Srl. (Italy)

NEXTYS
SWITZERLAND
www.nextys.com

WITNESS® 301 Environmental Monitor

Mechanical & Environmental

Dimensions : 31 x 64 x 170 mm (H x D x L)
Mounting method: 4 x ∅4 mm holes in flange (55 x 160.5 mm)
Weight: 0.3 kg without batteries
Protection degree: IP65
Operating temperature: -30°/ +75°C (with Lithium batteries)
Storage temperature: -50°/ +80°C

Shock and Vibration Measurements

Transducer type: built-in 3 axis piezoelectric accelerometer
Accuracy: +/-1g and +/-10% of reading
Bandwidth: 0.5 ... 100Hz; analog filter
Range: 1g...100g with 1 g resolution
Sampling rate: 2 ms
Shock waveform length: 86 samples (172 ms)/ waveform
Pre-trigger position: 8 samples
Available data: shock amplitude and duration

Temperature and Humidity

Temperature range: -30° ... +75 °C/ -22°...167°F
Temperature transducer: built-in semiconductor transducer
Accuracy (typical): 1°C for-10°/+40°C, < 2°C for the rest
Humidity sensor: built-in polymer sensor
Humidity range: 5 - 95% RH
Accuracy (typical): 2% RH
Sampling rate: 1 min^{-1}

Data Storage & Security

Data format: date, time, measured values
Memory type, capacity: non - volatile FLASH, 8 Mbit
Data protection: - password protected against erasing
- system alarms register
- anti tampering enclosure

Power Sources

Internal: 3 x 9V / 1200 mAh standard Li batteries
External: external battery pack or DC power source (9 – 14.4V)
Runtime: Li batteries >3'000 h, Alkaline batteries >1000 h

Interfaces

RS 232 for PC / serial printer connection, **magnetic key**, **LEDs.**

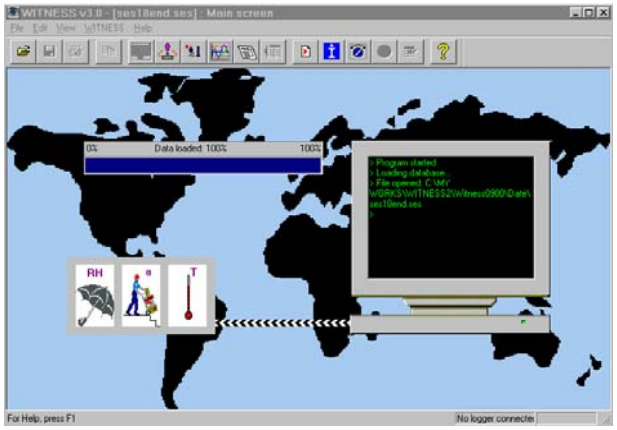
User Software

Data transfer and processing software under MS Windows 95, 98, ME, 2000 and NT. All data compliant with MS Office software.

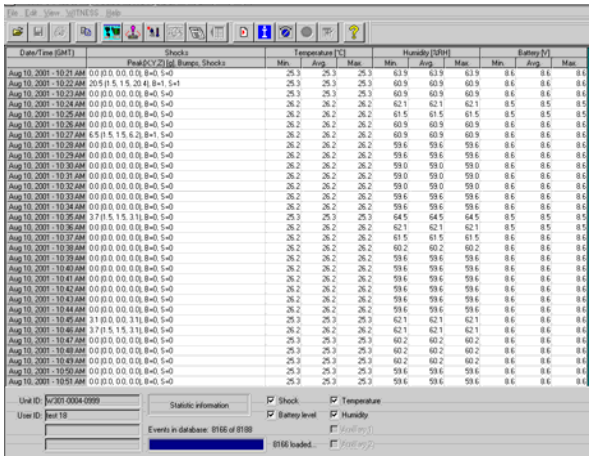
Standards Compliance

EM Immunity: EN 50140 / Class A
Radiated Emissions 30 MHz...1 GHz: EN55022/Class B
Immunity to ESD: EN 50082-1/EN 61000-4-2 Class A
Markings: CE

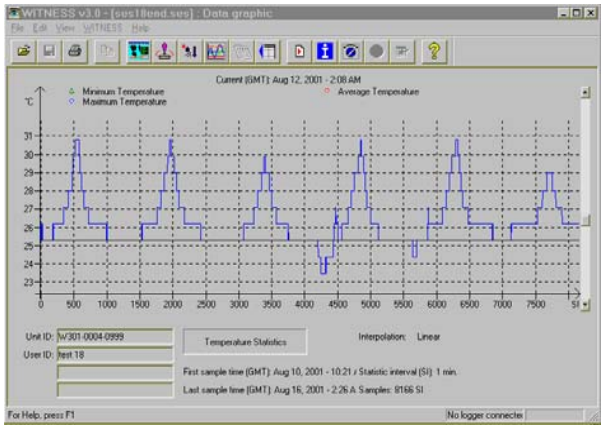
Specifications subject to change without notice



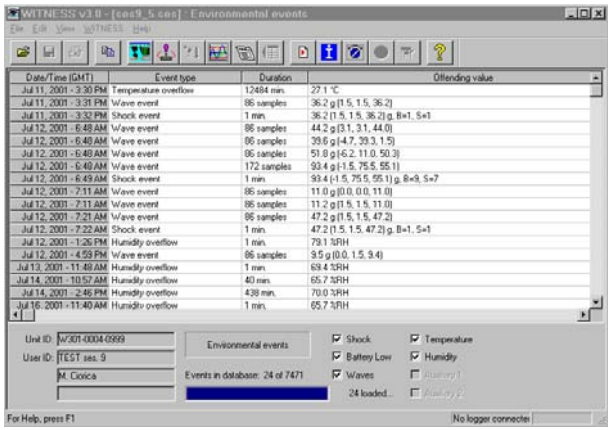
User interface



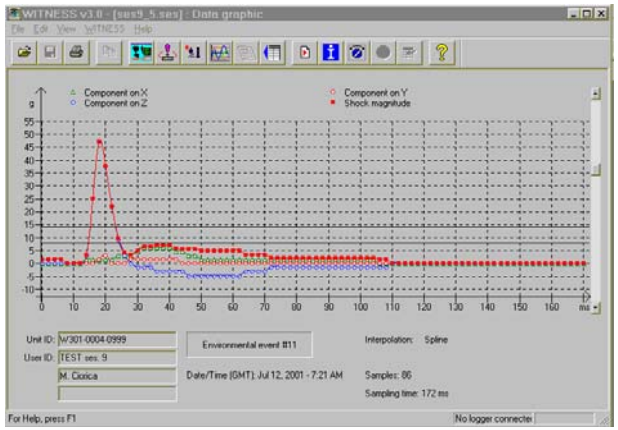
Statistic measurements spreadsheet



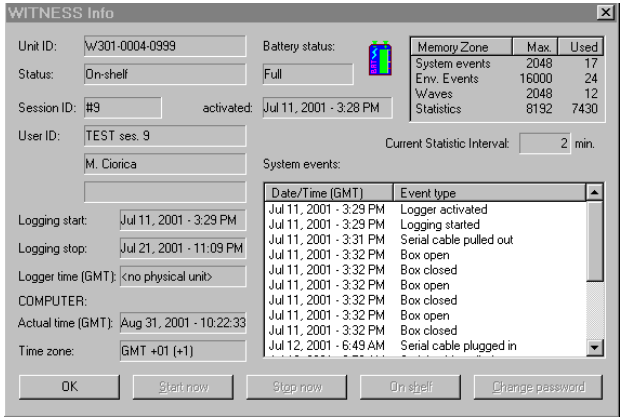
Statistic graphic of the temperature



Environmental Events Spreadsheet



Shock graphic representation



Info screen