

# WITNESS'301 Environmental Monitor

## Mechanical & Environmental

**Dimensions :** 31 x 64 x 170 mm (H x D x L)  
**Mounting method:** 4 x Ø4 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<sup>-1</sup>

## 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**.

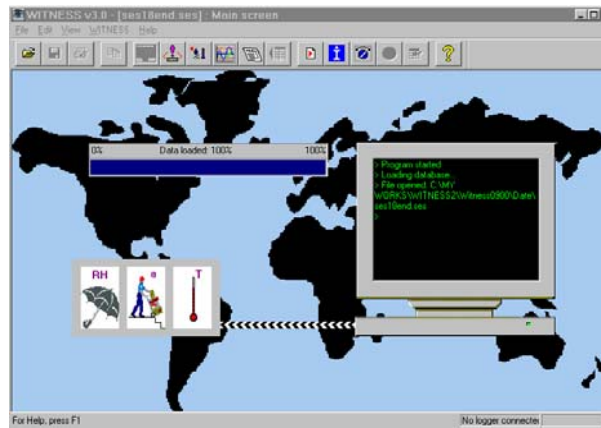
## User Software

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

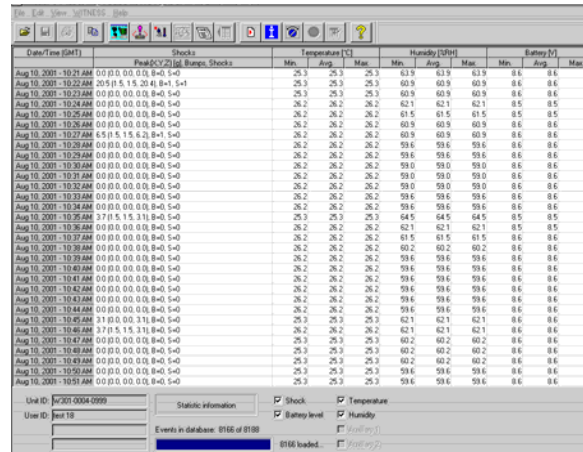
## Standards Compliance

**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

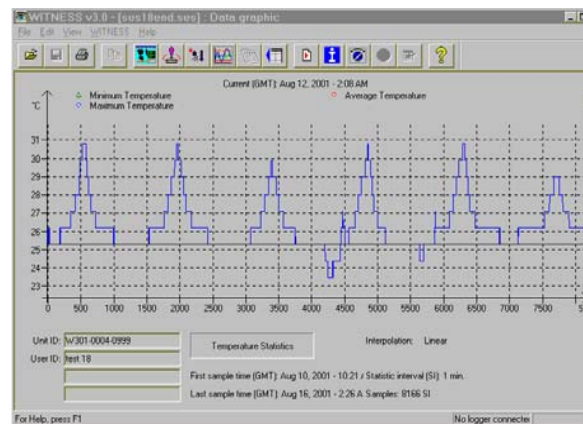
Specifications subject to change without notice



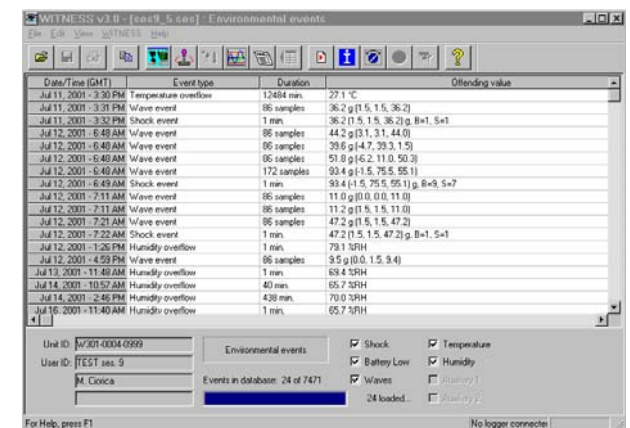
User interface



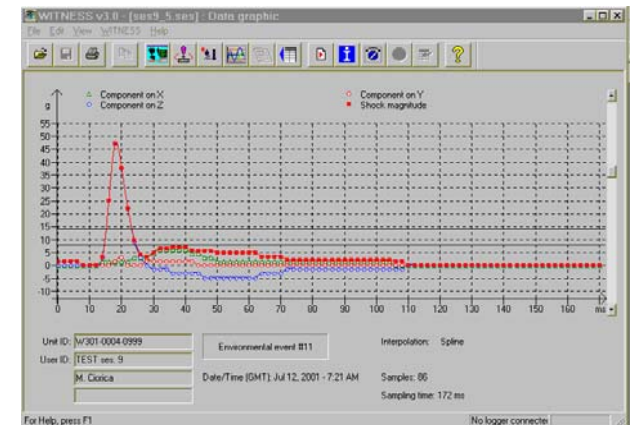
Statistic measurements spreadsheet



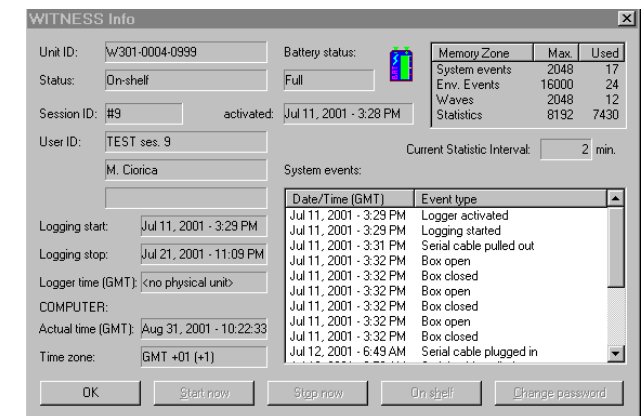
Statistic graphic of the temperature



Environmental Events Spreadsheet



Shock graphic representation



Info screen