

Solo

**Digital integrating
sound and vibration
level meter**



01 dB-Stell
MVI technologies group

introduction

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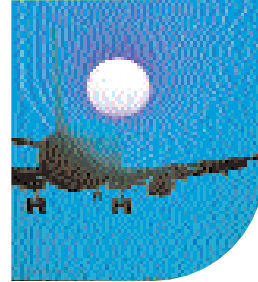
The result of 15 years experience, SOLO represents the newest generation of 01dB-Stell digital integrating sound level meters.

SOLO complies with the latest international standard (IEC 61672-1) on sound level meters.

Its versatility allows for various applications such as vibration measurements, vehicle noise, sound and vibration monitoring, 1/1 and 1/3 octave real-time frequency analysis, etc.

The use of new technologies results in unrivalled performances. In particular, the 24-bit analogue-digital conversion allows for measurement on a single dynamic range (117 dB) and the large memory capacity for storage of all data measured in parallel. Also, the USB interface turns SOLO into an acquisition front-end for real-time analysis on a PC. Using a modem or a GSM phone, SOLO may be remotely monitored and interrogated to retrieve all measured data, without disrupting the current measurement session.

In short, intelligence allied to simplicity makes SOLO the master of the sound and vibration instrumentation.



Virtuosity

- New digital technologies
- Compliant with IEC 61672-1
- Large memory capacity
- Parallel calculations (all data and weightings)
- Time history of pertinent acoustic descriptors
- External tachometric input
- Direct calculation of rotation speed from acoustic signal
- Battery life > 24 hours
- Input compatible with 0V polarization microphones and integrated electronics accelerometers
- Detachable microphone preamplifier



Applications:

- **Environment:** complaints handling, impact studies, monitoring,...
- **Building:** reverberation time, insulation, monitoring,...
- **Industry:** Sound and vibration control, machinery acceptance tests of bearings,...

SOLO



Communication

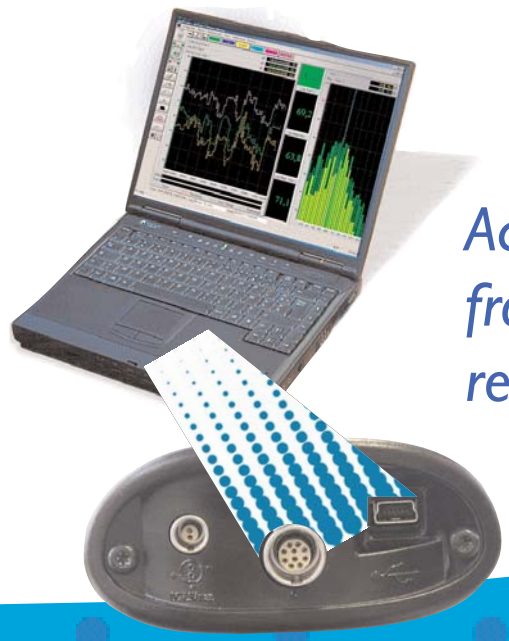
- Download of memory data via RS232C or USB interface
- Control and download of data by modem or GSM
- Transfer of digital signal to PC for real-time

Simplicity

- Large back-lit high resolution screen
- Simple and comprehensive multilingual menus
- Ergonomic keyboard
- Rapid access to functions
- Remote control box (option)

Versatility

- 5 versions:
 - Acoustics: SOLO PREMIUM and MASTER
 - Vehicle noise: SOLO VN
 - Vibrations: SOLO Vib and VibExpert
- Compatibility of application software (combination of versions in option)
- Options depending on versions: average and multispectrum 1/1 and 1/3 octave real-time analysis, additional memory, reverberation time and sound insulation,...



Acquisition front-end for real-time analysis



sts, sound power, vibration control

Technical specifications

SOLO PREMIUM, MASTER, VN acoustic versions

Common performances:

- Dynamic range: up to 117 dB (class 1 or 2 according to IEC 61672-1)
- Lp with F, S, I, P time constant
- Single and successive Leq Start/Stop with immediate and delayed start
- A, B, C, Z weightings except VN (only A)
- Language selection: F, GB, D, I, E, P
- Back erase 5 seconds of measurement
- Back-lit high resolution LCD screen and function keys
- Storage of up to 1000 values
- Battery life > 24 hours
- Option: average 1/1 and 1/3 octave (12.5 Hz - 20 kHz)
- Option: Modem with dBMODEM (modem not supplied)
- Options: 01dB-Stell software packages (dBEnv, dBBAI, dBFA) for memory download

SOLO MASTER specific performances

- Short Leq with time step of 20 ms to 10 s
- Time history of pertinent acoustic descriptors
- Standard 1Mvalue memory
- Peak number detection
- Programmable periods
- Optional signal transfer via USB interface for real-time analysis using 01dB-Stell software (dBEnv, dBBAI, dBFA)
- Option: multispectrum 1/3 octave (12.5 Hz - 20 kHz)
- Option: Reverberation T60 and sound insulation
- Option: laser tachometry

SOLO VN specific performances

- Acoustic detection of rotation speed
- Option: external CA23 tacho
- Option: neighbourhood noise (dBTRAIT + overall level PREMIUM firmware)

Accessories:

- PRE21S preamplifier
- MCE212 (class 1) or MCE 220 (class 2) microphone
- Built-in battery and charger power supply
- USB and Lemo 10/RS232 transfer cables
- Carrying case
- Windscreen (BAV)
- Manual (CD) + dBSLM (ASCII memory transfer software)
- Simplified getting started manual and metrology notebook
- Position setting stick and special tripod (VN only)

SOLO Vib and VibExpert vibration versions

Common performances

- Dynamic range: 117 dB
- Acceleration, velocity and displacement
- Data calculated over a single frequency band
- RMS, Max RMS, Peak and Peak to Peak (displacement)
- Option: laser tacho
- Option: temperature

SOLO VibExpert specific performances

- Data over various frequency bands (parallel calculations)
- Severity
- Equivalent severity
- Defect factor
- Peak factor
- Option: K factor

Accessories:

- Built-in battery and charger power supply
- USB and 10/RS232 Lemo transfer cables
- Carrying case
- Manual (CD) + dBSLM (memory transfer software)
- Simplified getting started manual and metrology notebook
- 10 mV/g integrated electronics accelerometer
- Lemo/ μ dot cable, IM/01 magnetic stud
- Isolated SF/02/A cementing stud

SOLO common options

- dBSOLO1 with dBTRAIT for memory transfer (except VN when no neighbourhood noise and Vib, VibExpert)
- dBSOLO2 with dBBAI for Reverberation T60, D and spectra memory transfer
- dBSOLO3 with dBFA for memory transfer (except VN)
- TRIG TOR (TOR on exceeded level) with cable
- Carrying case
- External battery charger
- Additional battery
- Serial printer DPU 414
- Laser tacho (except VN)
- Hand probe (Vib - VibExpert)
- Bees wax (Vib - VibExpert)

Benefits

- Sound level meter
- Vibration meter
- Real-time acquisition front-end
- Dynamic range: 117 dB
- Large memory capacity
- Parallel internal calculations
- USB interface
- MODEM or GSM communication

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