

# SONIC14

## Equipment for Sonic/Ultrasonic Test, P.I.T. Pile Integrity Test

### :: METHODOLOGIES ::

Sonic test  
Sonreb  
Ultrasonic Pulse Velocity  
P.I.T. Pile Integrity Test



Sonic14 is an innovative device for non Destructive Tests and surveys which uses sonic or ultrasonic methodologies, due to its modularity features, this device is extremely versatile and can be useful for a wide set of surveys both on concrete and cement works such as diaphragm poles or structural elements and masonry works. Depending on the kind of survey required, it is possible to connect to the equipments the necessary accessories such as various frequencies probes for ultrasonic tests or the impulsive source instrumented or not for pulse tests.

The equipment management is easy and user-friendly and it is achieved by smartphone or tablet equipped with android operating system which on demand can be provided in rugged mode with display of 5" – 7" – 10" size according to customs' survey needs. Instrument setting and measurements execution is easy and immediate in all conditions due to wireless interface between the instrument and visualization unit (tablet) and due to extremely reduced size of SONIC14 basic unit

SONIC14 instrument together with the new Controls digital sclerometer can be used for Sonreb tests

Available versions:

Cod. KSONIC14, SONIC14, ultrasonic pulse basic module  
Cod. KEXPSONIC14UM, SONIC14, sonic test with instrumented hammer basic module + expansion module  
Cod. KEXPSONIC14IT, SONIC14, I.T. test basic module + expansion module

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## SPECIFICATIONS

### Acquisition:

- Signal range:  $\pm 2.5$  V
- amplification factors: x1, x2, x4, x5, x8, x10, x16, x32
- generator with two levels of power: normal, high
- band width: 200 kHz
- filter for ultra-sounds: central frequency 50 kHz
- mode: manual (with push-button or hammer control) or automatic (with timing)

### Probes:

- Resonant frequency 52 kHz
- Diameter: 48 mm
- Excitation peak voltage: 500V (normal), 2000V (high)
- Maximum frequency for pulse emission: 1 per second

### Hammer:

- Trigger: piezoelectric
- Knockers: plastic and metal

### Generals:

- Normative compliance: ASTM C597-09 e UNI En 12504-4
- Totally managed by android palmtop through owner application
- Communication standard: Bluetooth 2.0
- No direct interaction with the instrument except for probes and hammer connection
- Graphic visualization of the signal acquired
- Interactive graphics with zoom functions and cursor reading
- Automatic zoom on cursor or on a temporal set up window
- Memorization of each single signal acquired
- Possibility of modifying acquisition parameters while measuring
- Saving measurements campaign in a single file
- USLab software for PC for report processing and generation
- Inner lithium battery of 6Ah
- Rechargeable by USB mini-B connector
- Typical consumption: 500 mA during rest, 1A during measurements
- Box with belt
- Operating temperature: 0-60°
- Sizes and weight: L. 120 x H. 65 x P. 120 mm, 1,5 Kg

*The continuous improvement of this product by engineering could create differences with the one specified. MAE reserves the right to make any changes to products without make public communication. All cited brand are registered by relative producers. Pictures of management devices are purely indicative, they can be changed according to the needs keeping indicated functional characteristics.*



[mae-srl.it/go/SONIC14](http://mae-srl.it/go/SONIC14)

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## RELATED PRODUCTS

 [KEXPSONIC14IT](#)  
Modulo di espansione SONIC14 per IT Test

 [A5000UM](#)  
Strumentazione per ultrasuoni a contatto + prova sonora con martello strumentato

 [WINSONIC](#)  
Software reportistica indagini a mezzo ultrasuoni a contatto

 [MNS1](#)  
Mazzuolo in gomma

 [KEXPSONIC14UM](#)  
Modulo di espansione SONIC14 per prova sonora su muratura

 [MNS2](#)  
Martello con testa in nylon

 [MSU3](#)  
Martello trigger per prova sonora