# **ULTRASONIC PULSE VELOCITY (UPV) TESTER**



## 58-E4800



Non Destructive evaluation of concrete homogeneity and determination of dynamic elastic modulus. Conforming to EN 12504-4 and ASTM C597.



### **MAIN FEATURES**

- O New design, ergonomic and compact.
- O Lightweight and portable.
- O Fitted with rechargeable batteries assuring long running life.
- O Many test settings (gain, calibration, display power saving).
- O High quality/price ratio.

#### **General description**

58-E4800 UPV tester is used for quality control and inspection of concrete. It measures the transit time of ultrasonic pulses through concrete and can be applied to new and old structures, slabs, columns, walls, fire damaged areas, precast and prestressed beams, cylinders and other concrete forms.

Combined with an oscilloscope it is suitable to identify honey combs, voids, cracks and other non homogenous conditions in concrete.

Low and high frequency transducers are available.

## **ULTRASONIC PULSE VELOCITY (UPV) TESTER**

### Test procedure

Although the direction in which the maximum energy is propagated results at right angles to the face of the transmitting transducer, it is possible to detect pulses which have travelled through concrete in other directions: adjacent faces (semi-direct transmission) or same faces (indirect transmission).

#### **Technical specifications**

- Microprocessor incorporated
- Battery operated by internal rechargeable battery pack (2400 MAh) and external charger
- 14 working hours using 1 Hz pulse rate
- RS 232 output for PC/suitable printer
- Connectable to oscilloscope
- Transit time measurement from 0.1 to 1999.9 microseconds
- Pulse rate 1, 2, 5, 10 per second, selectable
- Resolution 0.1 microseconds
- Transmitter output 1200 V
- Frequency range 24 to 150 kHz
- Receiver input impedance 1 MOhm
- Dimensions: 240 x 120 x 75 mm
- Weight: 0,5 kg approx.



### **Ordering information**

#### **Tester**

Code	Description
58-E4800	Ultrasonic pulse velocity tester rechargeable battery operated
	Conforming to EN 12504-4 and ASTM C597

#### The unit is supplied complete with:

- Two 54 kHz transducer heads, transmitter and receiver, with 3 meters cable.
- Calibration rod.
- Coupling agent (250 cc bottle).
- RS 232 serial cable for the connection to PC/suitable printer.
- Battery charger.
- Shoulder strap.
- Carrying case and instruction manual.

#### **Accessories**

Code	Description
58-E0048/10	Oscilloscope
58-E0046/30	24 kHz transducer head (1 piece)
58-E0046/33	150 kHz transducer head (1 piece)
82-P0172/A	Serial printer battery operated

#### CONTROLS S.r.L.

Via Aosta 6 I-20063 Cernusco s/N. (MI) ITALY

Tel. +39-02921841

Facsimile +39-0292103333 E-mail: controls@controls.it

www.controls.it

CONTROLS is certified to ISO 9001:2000



