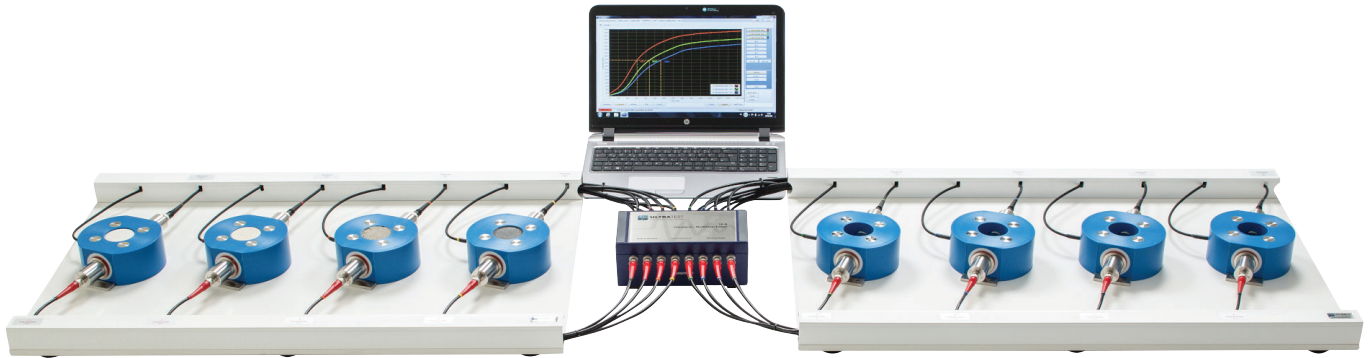


HC-3070.3F Ultrasonic Measuring Systems IP-8



This 8-channel, ultrasonic measuring system is specifically designed to measure the setting times of materials, such as cement, mortar, gypsum and concrete. The system is comprised of eight (8) measuring units with ultrasonic probes and temperature sensors, which are connected to an 8-channel hub. This hub is connected, via a USB cable, to a PC computer running the control software, which allows control and evaluation of each measuring unit.

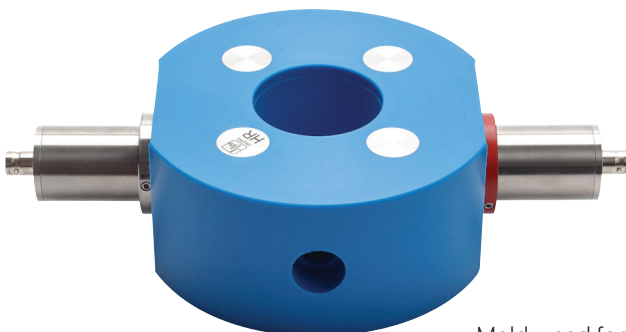
The system provides a high-precision (0.05 μs resolution) monitoring of the complete setting process from mixing to 28-day consistency in one test. The software provides an intuitive user-interface with direct-reading results from different modelings. The system provides a very-high reproducibility of the measurement results. It is able to detect deviations in the results early in the testing stage, which can speed up the testing process and provide an optimal process for maintaining quality control of production and a substantial reduction in development times and costs.

Main Features

- High-precision measuring system (resolution 0.05 μs)
- 8 independently controllable channels
- Intuitive software for control & evaluation
- Simple and easy to use in everyday lab work
- Suitable for industrial applications
- Optional PLC control & integration in production lines

Applications

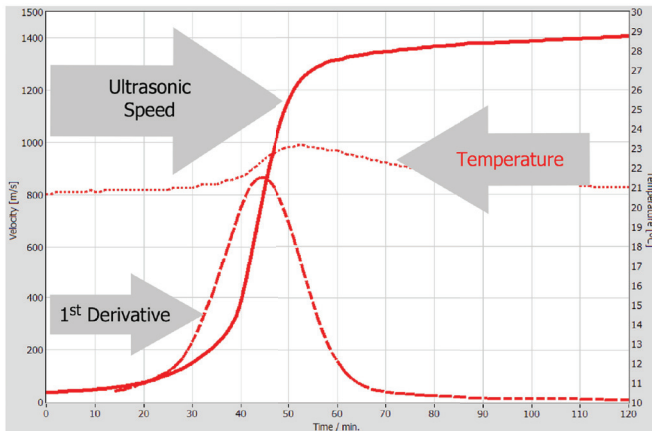
- Any material with a setting process (e.g. cement, mortar, gypsum, concrete, adhesives systems)
- Heat insulation & render systems
- Construction chemicals, additives
- Refractories, castables
- Food industry



Mold used for sample

HC-3070.3F Ultrasonic Measuring Systems IP-8

Analysis of Ultrasonic Speed



UltraTestLab® - Control and Evaluation Software

- During measurement simultaneously visible:
 1. Ultrasonic speed in m/s or runtime in μ s
 2. Curve derivation (acceleration) or curvature
 3. Temperature inside the sample (-20 ... +125 °C)
 4. Compressive strength correlation (optional)
 5. Shrinkage/swelling by connection of "shrinkage grooves" (optional)
- Reproduction of characteristic points such as e.g. initial set and final set with
- graphic markers
- Permissible deviations against reference measurements definable with envelope function
- Evaluation, Excel export and printouts possible during measurement
- Dynamic elastic modulus calculation and display
- Measurement of prisms and other hardened test specimens
- Flexible user interface allows operation in various languages

Advantages of Ultrasonic Measurements

- Precise display of the setting process enables a new era of product development
- Immediately visible results are one of various reasons for saving in time and cost (30 % confirmed by users)
- Exact reproducibility of measurement results allows identification of deviations at an early stage
- Strength development from initial mix to 28-day strength in a single measurement
- Intuitive software operation makes it perfect for laboratory use
- Easy cleaning and refilling of the measuring moulds is a key to permanent use
- Special tools such as e.g. graphic marks and envelope make the system ideally suitable for quality assurance and production

Specifications:

Dimensions for Setup

4-Channel System with 1 platforms:	130 x 60 cm
8-Channel System with 2 platforms:	220 x 60 cm

Power Supply

Input:	110V .. 240V AC / 50-60 Hz / 0,25 A max.
Output:	12V DC / 0,5 A max.
Power consumption IP-8:	2,0 W typ.
Euro plug or US plug	

Minimum System Requirements

Operation System:	Microsoft Windows 10/11
RAM memory:	Min 4 GB
HDD	Min 10 GB free
Processor:	Intel i-series , AMD Ryzen
Free USB 2.0 port:	1
Not older than 4-5 years	



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