



SMART BOX™

WIRELESS SENSOR FOR CONCRETE RESISTIVITY AND TEMPERATURE

OVERVIEW

Giatic Smart Box™ is a compact wireless device for the measurement and monitoring of electrical resistance and temperature in fresh concrete. The continuous measurements are recorded on Smart Box™ and can be downloaded using the mobile application on Android smartphone/tablet.

The electrical resistivity of fresh concrete has been shown to provide a good indication on the water content as well as setting and hardening of concrete. Smart Box™ provides an efficient tool for various research studies in these areas.



APPLICATION

Smart Box™ can be used to monitor the electrical resistivity of fresh concrete. This can provide information on:

- Water content in fresh concrete
- Prediction of setting
- Setting time measurement
- Crack detection in concrete

FEATURES

The followings are unique features of this device:

- Wireless technology
- Compact design
- Simultaneous measurement of electrical resistance and temperature
- Optimized frequency for fresh concrete
- Long battery life (about 3 months*)
- Mobile application for Android smartphone and tablet
- Easy data sharing
- Patent pending



TECHNICAL SPECIFICATIONS

General

Reading Range	Measurement Frequency	Accuracy	Measurement Time
1 – 3000 Ω	10 kHz	$\pm 2\%$	<1 s

Operating Conditions

Type	Value
Operating temperature	-20 ~ 45 °C
Operating humidity	10 ~ 90%
Battery Charger Specification	Input:100-240Vac (50-60Hz)/Output:5Vdc(500mA)
Dimensions of Smart Box™ unit	85 x 55 x 22 mm

Note: Specifications are subject to change without notice.



