Consensor 2.0
Concrete Maturity System

LT-C5000 | Automatic measurements and online monitoring

Temperature • Weighted maturity • Electrical conductivity



2.0

CONSENSOR SYSTEM

GPRS/Web

REMOTE DATA ACCESS

TS 13508 • Embedded concrete sensor • Data transfer through Data Box

Photographs and System Components

Sensor, connection cable and Data Box measurement unit

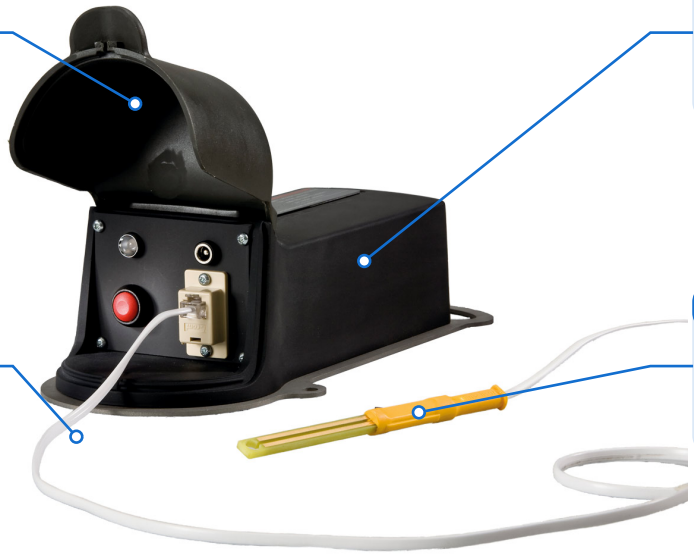
Consensor 2.0 automatically monitors concrete hardening. The embedded sensor connects to a Data Box, which transfers data to the server through the mobile network. Project results are accessible over the internet.

PROTECTIVE COVER

Cover over the Data Box connection region. Check its condition after positioning the unit.

DATA BOX

External unit that receives sensor measurements and sends them to the server. Match the point with its project record.



CONNECTION CABLE

Connects the embedded sensor to the external unit. Protect the cable during placement and check the connection.

CONCRETE SENSOR

Embedded for temperature and conductivity monitoring. Record its position and depth in the concrete.



Data Box and communication unit

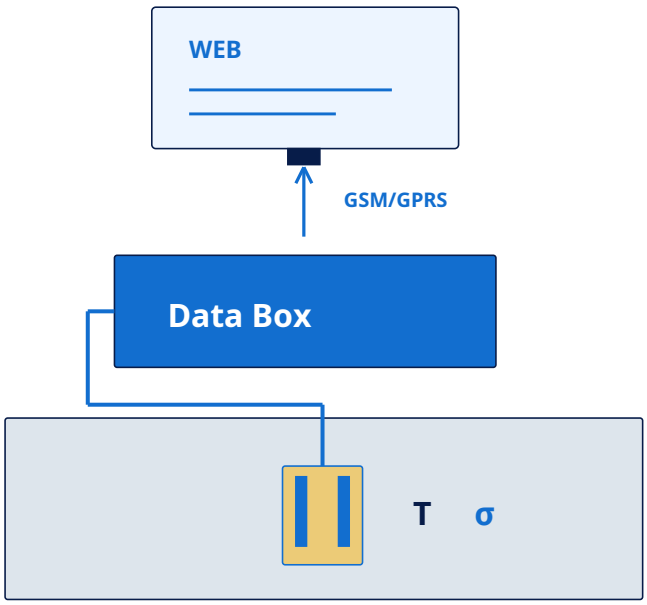


Sensor cable and connection detail

Measurement and Data Transfer Principle

Create project • Place sensor • Transfer data • Monitor development

SENSOR / DATA BOX / WEB • SCHEMATIC



TEMPERATURE AND CONDUCTIVITY IN CONCRETE

DATA + CALIBRATION = ESTIMATED STRENGTH

SCHEMATIC VIEW • NOT TO SCALE

Position and Identify

Fix the sensor at the selected location. Associate the mix, pour and sensor position with the project record.

Measure and Transfer

Collect sensor data through the Data Box. Check transmission to the server over the GSM/GPRS connection.

Monitor and Assess

Follow temperature, maturity and conductivity online. Assess strength development with suitable calibration.

The sensor supplies temperature and electrical conductivity data. The system uses measurements over time to assess maturity and strength development. The strength result is an estimate based on calibration associated with the concrete mix.

Calibration and Mix Records

The relationship between weighted maturity and compressive strength is established for the relevant concrete mix. Conductivity-based evaluation also depends on an appropriate calibration relationship.

Record mix changes and verify that the selected curve represents the concrete placed. Review maturity and conductivity results for the same measurement location and time period.

Location and Project Decisions

Sensor position and depth determine the part of the concrete represented by the measurement. Keep pour time and curing conditions with the project record.

Strength development provides data for assessing formwork removal or loading plans. Make application decisions with project requirements, responsible technical assessment and any required verification tests.

LT-C5000

Technical Specifications and Project Workflow

LT-C5000 • Consensor 2.0 | Online • GPRS/Web supported system

Specification	System Information
Product Code	LT-C5000
System	Consensor 2.0 | Online
Operation	Fully automatic measurement
Temperature	Concrete temperature monitoring over time
Maturity	Weighted maturity method
Conductivity	Electrical conductivity measurement
Strength Development	Assessment with mix-specific calibration
Data Unit	Data Box
Sensor Connection	One sensor per Data Box
Data Transfer	GSM/GPRS to server
Project Access	Web; username and password
Standard	TS 13508

Mix, Sensor Location and Data Checks

Record the concrete mix and sensor depth. Select suitable calibration and check data transfer. Assess strength development alongside the project criteria.

Concrete Development Monitoring

01
Define Project
Record mix, pour and measuring location.

02
Place Sensor
Fix the position; connect to Data Box.

03
Measure and Send
Check measurement and mobile data transfer.

04
Monitor
Assess with calibration and project criteria.

Product Page | liyatest.com.tr/en/urun/consensor/