RPX CONSTRUCTION

INSITE

FASTER, SAFER CONCRETE

BUILD FASTER & MEET TOUGH TEMPERATURE SPECIFICATIONS

InSite loggers are made for the world's toughest construction projects. Providing critical temperature and strength information so the best decisions can be made at exactly the right time. These rugged loggers are designed with redundant systems and high-temperature components to ensure they survive in the hottest, harshest concrete environments.

InSite strikes a perfect balance between wired and wireless technologies, resulting in increased reliability, global accessibility, and every-job affordability. When combined with intelligent cloud-based software, InSite puts the concrete data you need in the palm of your hand.

KEY BENEFITS

- Faster Construction
- Meet Temperature Spec's
- Expand Construction Schedule
- Provide Peace of Mind
- Decreased Costs
- Improve Quality & Safety

INSITE WIRED LOGGERS

Bluetooth and RFID loggers that are fully imbedded in concrete may seem like a great idea at first, but the risks are great, and the cost can be very high in many ways. First, these loggers are expensive with high per-test costs. Second, these technologies and wet concrete often do not work well together. Critical data can be lost when communication with embedded loggers can't be established.

Self-Starting, 1-minute, 180-day Insite Concrete Logger connected to Wireless Remote

InSite loggers are wired to increase reliability and to reduce the per-test cost to your project

Each logger measures and records concrete temperature every 60 seconds. Accuracy and reliability are increased by using temperature data from three on-board thermistors accurate to within 1°C. This triple-redundant system ensures backup thermistors are available if one should fail.

To endure extreme temperatures at the core of many concrete pours, ordinary batteries will not get the job done. InSite logger batteries are rated to 125°C (257°F) so they survive well past the hottest curing temperatures.

SELF-STARTING

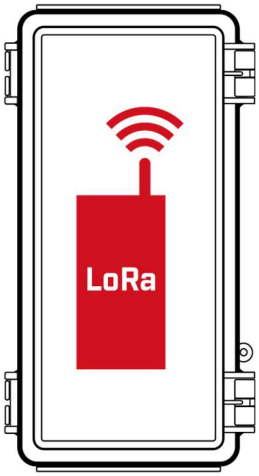
InSite loggers detect wet concrete and start logging data on their own at exactly the right time. When comparing temperature data or calculating concrete strength, start-time is critical. No need to waste time waiting for concrete to approach placed sensors. No need to adjust if concrete delivery is delayed. No need to worry - InSite starts autonomously.

INSITE WIRELESS COMPONENTS

InSite utilizes LoRa radios in all wireless components. These radios consume less power and have long ranges. This allows our Wireless Remotes to last 30 to 60 days in the field. They are powered by simple AA batteries. No charging cables to keep track of and no hazardous rechargeable batteries to worry about.

When power runs low, simply replace the AA batteries easily in the field. There is no need to bring wireless remotes back to the job trailer for recharging.

InSite wireless remotes are low cost and can be reused. There are no cell service costs to deal with each month and moving remotes from logger to logger or even jobsite to jobsite is easy!



InSite Wireless Radios communication via LoRa

CLOUD SOFTWARE

InSite data is accessible from anywhere via any computer or smart device. Through your account you can access current temperatures and historical temperature graphs from any number of loggers. The system can alert you when critical temperatures are reached so you can take action sooner and stay within specification. Not only can the InSite Cloud Software notify you via text or email when you have reached a key high or low temperature, it can also calculate the maximum difference in temperature of a group of loggers and alert you of that differential temperature. This type of alert is critical for mass concrete projects. Especially those with detailed thermal control plans. Knowing these temperatures early can ensure you meet specifications and avoid penalties, not to mention avoiding thermal cracking and other quality issues.

Knowing in-place early age strengths is the key to building faster and increasing safety. InSite's Cloud Software can calculate concrete strength via both the Nurse Saul and Arrhenius maturity methods. When you have achieved strength targets that you've specified, the system will alert you and your designated team via text and email.

Reports in .pdf format can be produced to share information as required and logger data can be exported in .csv format to work with your data outside the system when needed.

Managers control who has access to what data. Full access, including the ability to create projects, add loggers, setup users, establish alerts and manage devices - down to simple access for viewing of temperature/strength information, can be setup for each user.

InSite puts you in control and helps you deliver faster, safer concrete!

InSite Cloud Software on Wireless Device

INSITE SYSTEM SPECIFICATIONS

INSITE LOGGER SPECIFICATIONS

Operating Temperature	-20°C to 125°C
Max Storage Time and Temperature	85°C for 2 years
Max Temperature Measurement Range	-10°C to 110°C
Temperature Accuracy	+/- 1°C (-10° to 110°C)
Temperature Resolution	1°C
Time Accuracy	20 seconds per month
Temperature Measurement Rate	1 minute (resolution for max/min)
Maturity Integration Period	1 minute

INSITE WIRELESS REMOTE SPECIFICATIONS

Channels	Available in 1 and 4 channels
Powered By	6 AA Batteries
Modulation	N. America/Aus. LoRa 900MHz Radio Europe LoRa 868MHz Radio
Power Output	18.5 dBm
Receiver Sensitivity	123 dBm

INSITE WIRELESS BASESTATION SPECIFICATIONS

RADIO	
Modulation	LoRa
Frequency	923.3 MHz (Europe 868 MHz)
Power Output	18.5 dBm
Antenna Type (gain)	PCB Trace (1.7dBi)
Over-The-Air Encryption	AES-256
Agency Approval	FCC, RCM
POWER	Power-over-ethernet (IEEE 802.3af / Class1)
NETWORKING	
Network Interface	RJ-45, 10/100Base-T/TX Ethernet (IEEE802.3/802.3u)
IP Configuration	DHCP Only
CLOUD	
Interface	Data pushed to cloud over HTTPS on port 443
Password Requirements	Min 8 Characters, At least 1 Special and 1 Uppercase Character