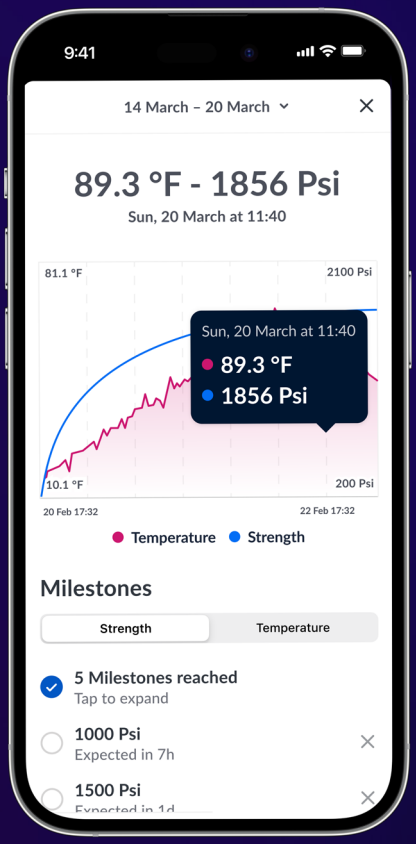
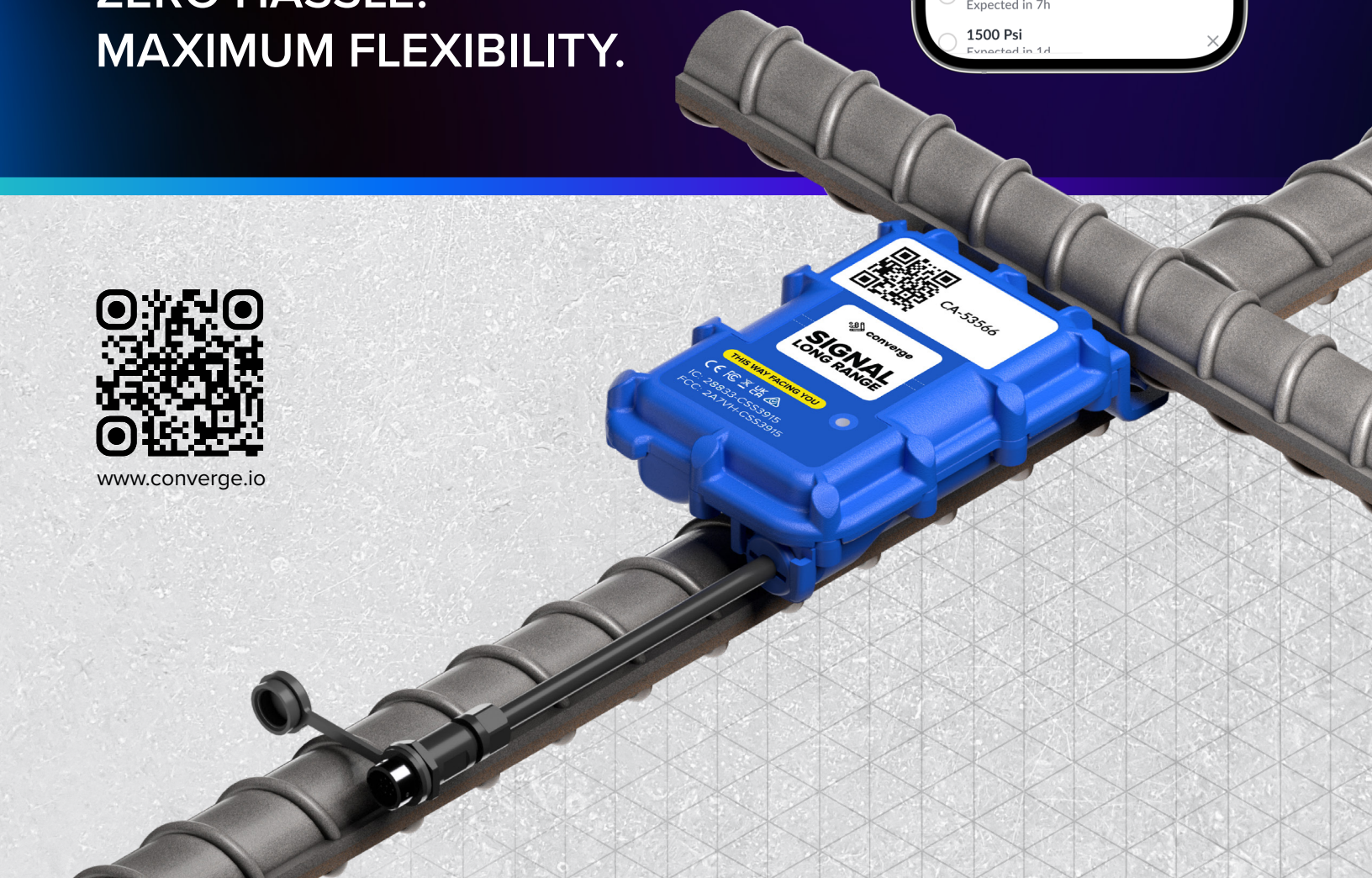
converge

CONCRETE MONITORING FOR EVERY JOBSITE

ZERO HASSLE.
MAXIMUM FLEXIBILITY.



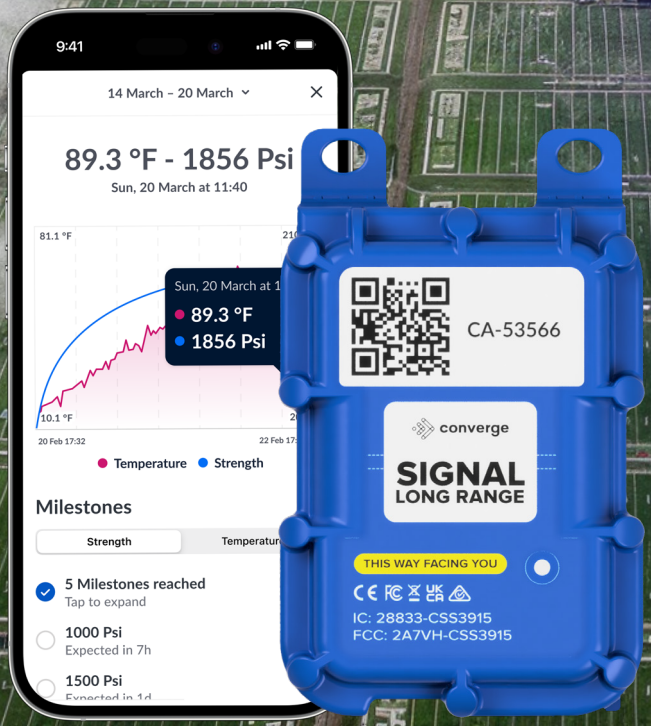


www.converge.io

SIGNAL LONG RANGE™

AUTONOMOUS CONCRETE MONITORING THAT GOES THE DISTANCE

55 FOOTBALL FIELDS COVERAGE



FULLY EMBEDDED:

No cables, no trip hazards, no breakage risks. Just set it and forget it.

ALWAYS ON:

Power via mains, solar, or 12 V adaptor keeps you connected anywhere.

SECURE FIT:

Innovative attachment prevents rotation on rebar for reliable, consistent data.

MORE DATA PER DEVICE:

Multi-probe tails deliver more measurement points per embed.

REMOTE CONVENIENCE:

Automatic monitoring saves time and labor — no daily visits or weekend checks.

UNMATCHED ACCURACY:

±0.9°F (±0.5°C) precision, exceeding ASTM C1074 standards.

ULTRA THIN DESIGN:

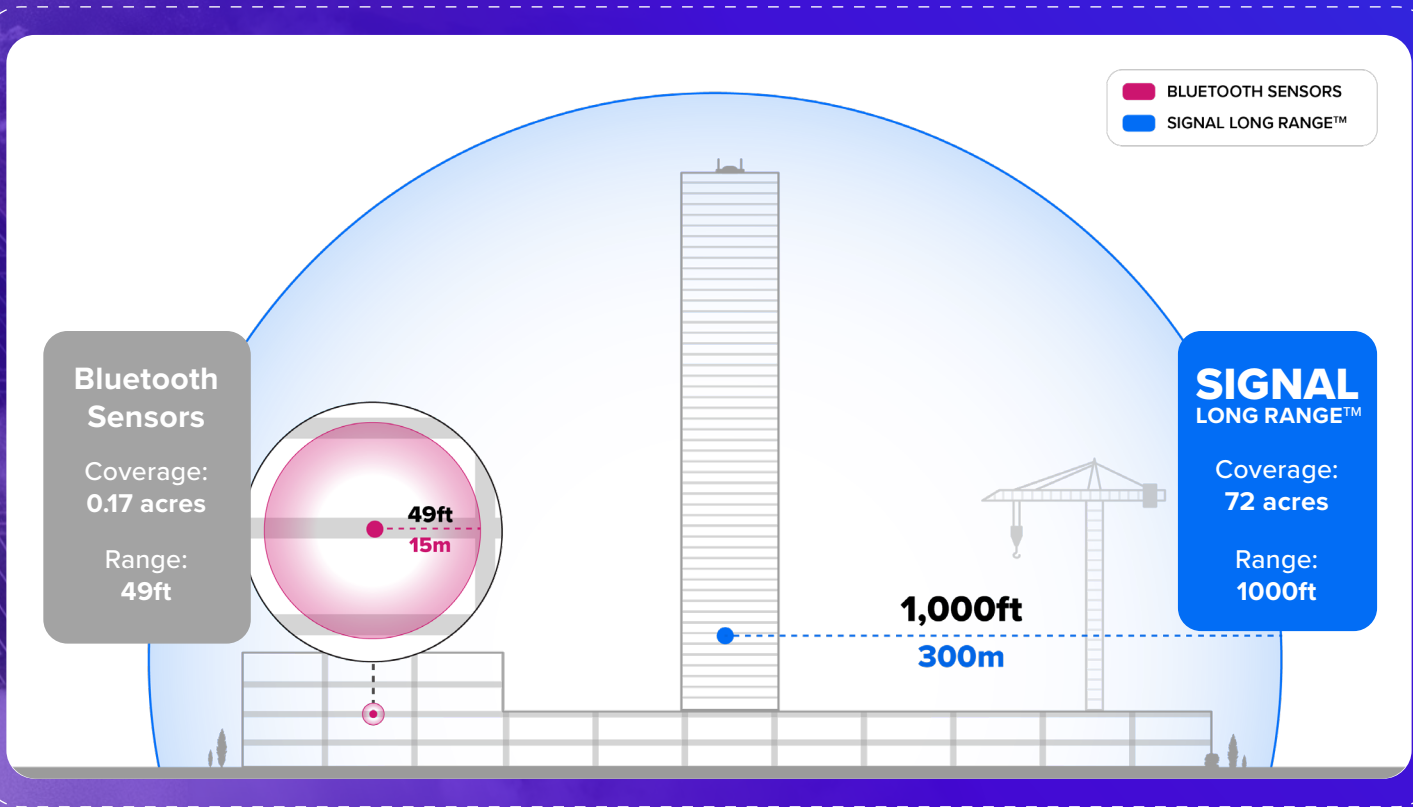
With its slim profile, our sensor is the thinnest on the market, delivering reliable data even in low-cover concrete — ideal for slipform construction.

COMPLETE SITE COVERAGE:

Up to 72 acres (≈55 football fields) with 1,000 ft range. Place it once — no moving, no hassle.

SIGNAL LONG RANGE+™:

Works with all Thermal Tails™, offering up to 4 measurement points and custom lengths up to 95 ft (29 m) — the longest digital probes on the market.



CONVERGE SENSOR SUITE

THE MOST MODULAR CONCRETE MONITORING ECOSYSTEM

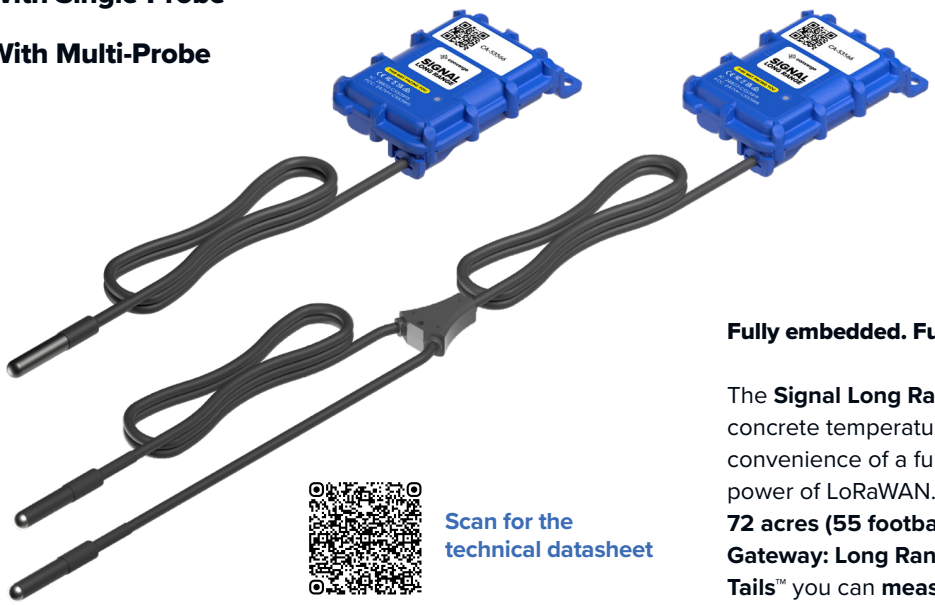
SIGNAL LONG RANGE™

EMBEDDED LONG RANGE

SIGNAL LONG RANGE WITH FIXED TAILS™

With Single-Probe

With Multi-Probe



Scan for the technical datasheet

SIGNAL LONG RANGE+™

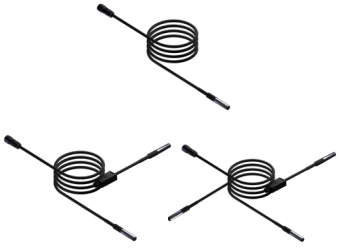
Fully embedded. Fully autonomous. Unrivalled convenience.

The **Signal Long Range**™ is the ultimate way to measure your concrete temperature and strength. This sensor combines the convenience of a fully embedded design with the long-range power of LoRaWAN. No exposed cables, and coverage up to **72 acres (55 football fields)** when paired with a **Converge Gateway: Long Range**™. When paired with modular **Thermal Tails**™ you can **measure up to 4 points** in your pour, the most possible with an embedded sensor.

THERMAL TAILS™

Pair **Thermal Tails**™ with our sensors to measure concrete temperature and strength at multiple points with these embedded digital probes.

Compatible with **Signal Long Range+™, Signal+™ & Helix®**



Accuracy	±0.9°F (±0.5°C)
Thermocouple Comparison	3x more accurate: ASTM compliant

THERMAIL TAILS™

3ft Single-Probe (1m)
10ft Single-Probe (3m)
46ft Single-Probe (15m)
6.5ft Multi-Probe x2 (2m)
13ft Multi-Probe x2 (4m)
20ft Multi-Probe x2 (6m)
16ft Multi-Probe x3 (5m)
20ft Multi-Probe x3 (6m)
26ft Multi-Probe x3 (8m)
32ft Multi-Probe x3 (10m)
40ft Multi-Probe x3 (12m)

Up to 95 ft (29m) custom available upon request

CONVERGE GATEWAY™

The **Converge Gateway**™ autonomously collects data from the suite of Converge sensors, giving you remote and real-time data. No need to visit the site to monitor your concrete. With solar power, batteries, and vehicle power adapters, you can get your data in the most challenging conditions.

LONG RANGE

Compatible with **Signal Long Range+™ & Helix®**

BLUETOOTH

Compatible with **Signal Sensor+™**

MONITOR YOUR CONCRETE TEMPERATURE AND STRENGTH WITH REAL-TIME PRECISION AND REMOTE CONVENIENCE.

All compatible with CONCRETE DNA CURE™

HELIX®

REUSABLE LONG RANGE

HELIX® NODE

Scan for the technical datasheet

Reusable. Long-range. Engineered for scale.convenience.

The **Helix**® system is our most cost-effective solution for long-term or high-volume infrastructure projects.

With reusable Long Range Network nodes and replaceable **Thermal Tails**™, Helix® combines absolutely massive range (up to **1.5 miles**), low total cost of ownership, and robust performance.

SIGNAL™

EMBEDDED BLUETOOTH

SIGNAL SENSOR™

Scan for the technical datasheet

SIGNAL SENSOR+™

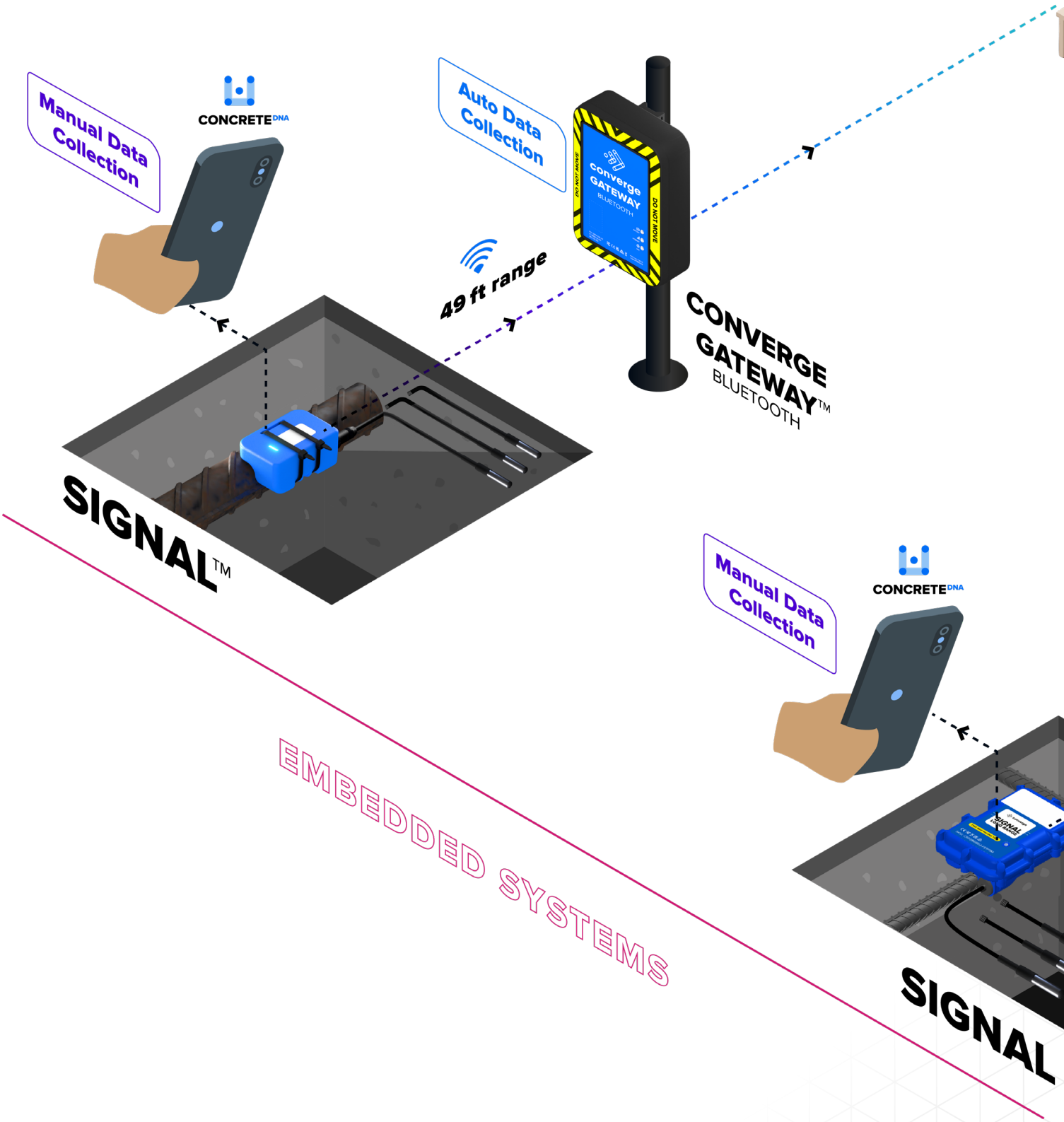
Fully Embedded. Simple. No-Fuss.

The **Signal Sensor**™ is the no-fuss, fully embedded option for teams who want real-time concrete monitoring without cables or complexity. Ideal for projects where reliability and simplicity matter most.

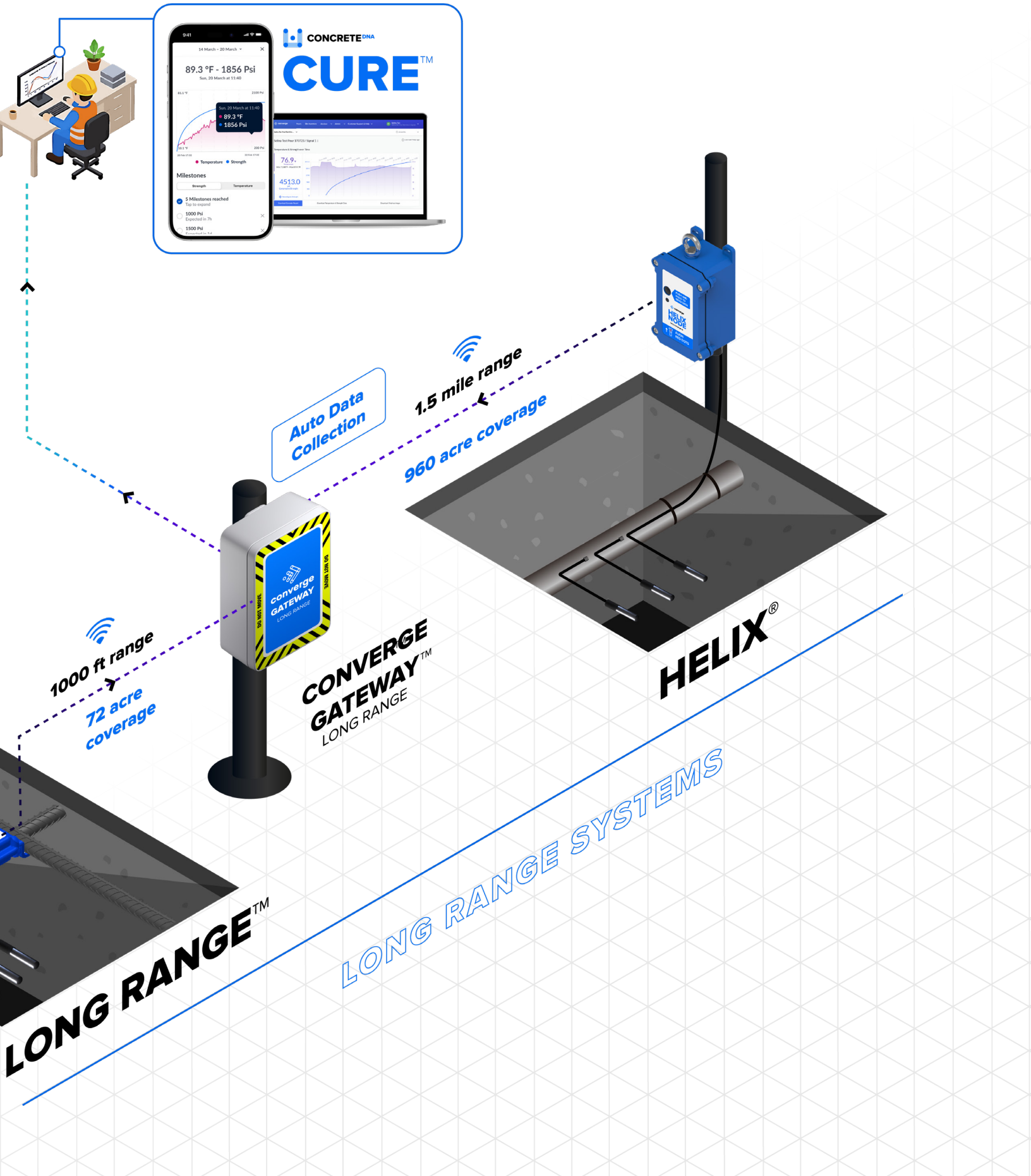
SYSTEM COMPARISON

FEATURE	SIGNAL™ (BLUETOOTH)	HELIX®	SIGNAL LONG RANGE™
Design	Fully embedded	Reusable node with exposed Tails	Fully embedded
Connectivity	Bluetooth (manual / Gateway)	Long Range Network	Long Range Network + Bluetooth
Range	~49ft (15m)	Up to 1.5 miles (2.4km)	1,000 ft (300m)
Reusability	Single-use	Reusable	Single-use
Measurement Points	Up to 4	Up to 3	Up to 4
Thermal Tail Compatibility	✓	✓	✓
Installation Effort	Very low	Moderate (move node, finish surface)	Low
Accuracy	±0.9°F (±5°C)	±0.9°F (±0.5°C)	±0.36°F (±0.2°C) (sensor body)
Ideal Projects	Commercial, residential.	Long-term large scale infrastructure, precast	Large-scale infrastructure
Key Benefit	Affordable simplicity	Range and cost-effective at scale	Maximum convenience and range
Compatible Converge Gateway	Bluetooth (formerly Signal Live Hub)	Long Range (formerly Helix Hub)	Long Range (formerly Helix Hub)

THREE SENSOR SYSTEMS
ONE PLATFORM
UNLIMITED POSSIBILITIES



WHATEVER THE PROJECT, WE'VE GOT YOU COVERED



HOW THE SOFTWARE WORKS

CONCRETE DNA
CURE™

NEXT LEVEL CONCRETE INTELLIGENCE, DATA MANAGEMENT AND MIX SELECTION

PROJECTS FINISH FASTER

When concrete is on the critical path of your construction schedule, can you really afford to wait for lab results?

Get continuous, accurate, and real-time strength and temperature data, ensuring you always have the most up-to-date information at your fingertips.

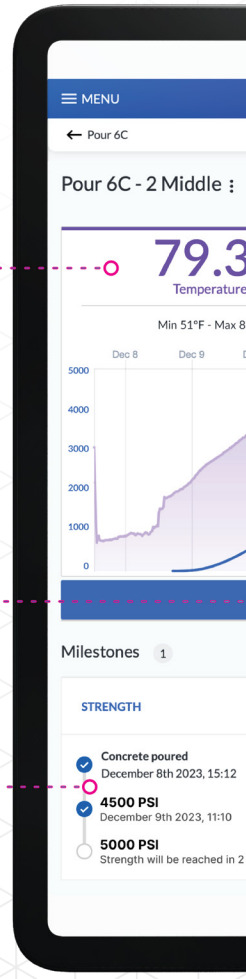
Use real-time monitoring and AI predictions on concrete strength and temperature to strike formwork up to 40% faster.

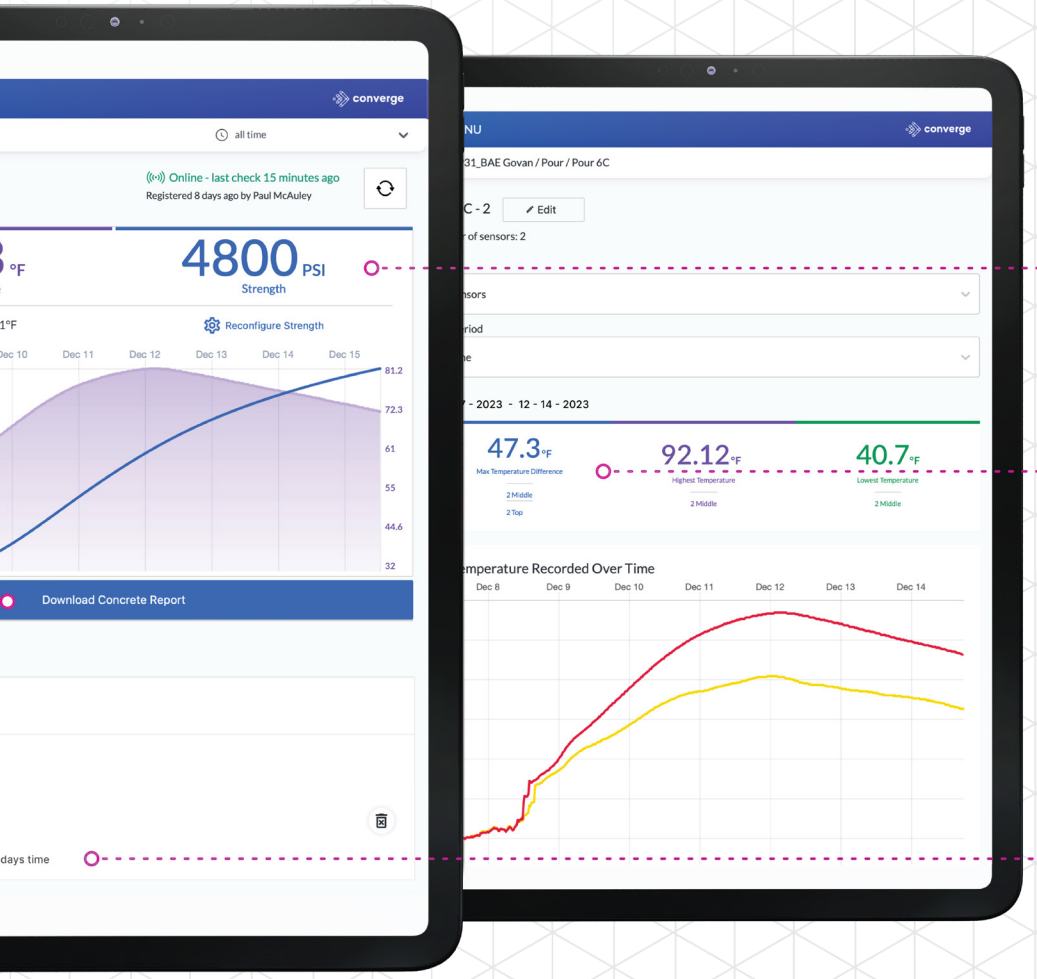
- Make faster, safer decisions on post-tensioning, formwork removal, road openings, and more.
- Ensure project milestones are met by reducing wait times associated with traditional third-party lab testing.
- Monitor temperature differential limits to avoid cracking.
- Minimize safety risks associated with premature formwork removal or post-tensioning.
- Provide an audit trail for quality assurance and safeguard against potential disputes with irrefutable data on in-situ maturity testing.

REAL-TIME POUR TEMPERATURE

EASY REPORTS

MILESTONES





REAL-TIME CONCRETE STRENGTH

THERMAL DIFFERENTIALS

AI CURING PREDICTIONS

CASE STUDY

AUSTIN COMMERCIAL

CASE STUDY

IMPACT ON A AUSTIN COMMERCIAL PROJECT

- **Project Scale:** 286 Signal Sensors deployed
- **Application:** Large manufacturing plant with 6ft thick mat foundations
- **Key Challenge:** Monitoring temperature differentials in massive concrete structures
- **Solution:** Strategic placement of sensors for real-time temperature monitoring
- **Outcome:** Met strict temperature limits and project specifications

KEY BENEFITS

- **Real-time data for informed decision-making**
- **Seamless integration into project workflow**
- **Effective monitoring of concrete curing processes**
- **Swift remedial actions when needed**
- **Easy access to data for all parties**

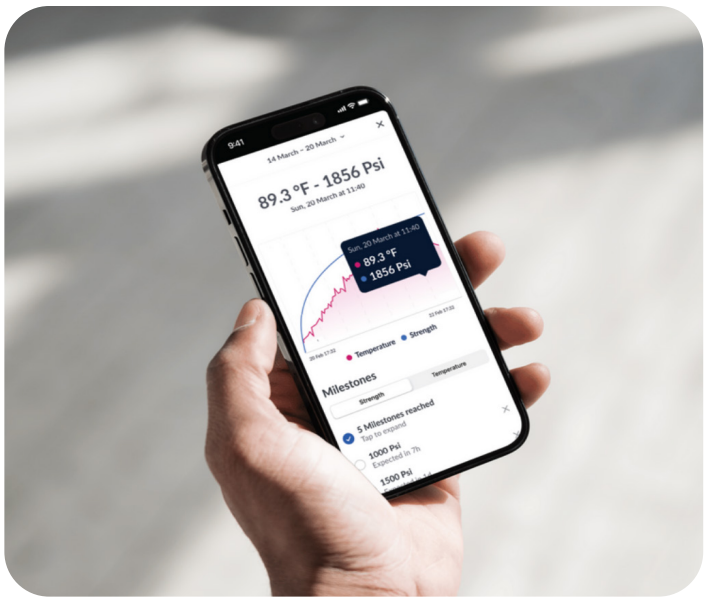
REAL-TIME INSIGHTS FOR SMARTER CONCRETE DECISIONS

MATURITY MONITORING
TRACK STRENGTH, SAVE TIME

CURE gives you real-time visibility into concrete strength development. It continuously measures temperature and calculates in-place maturity, so you know exactly when your pour hits target strength. Strip formwork, apply loads, and move to the next phase with confidence — saving time, cutting waste, and keeping your project on schedule.

THERMAL DIFFERENTIAL MONITORING
PROTECT QUALITY, PREVENT CRACKING

CURE gives you complete control over temperature performance in mass pours. It monitors internal and surface temperatures in real time, tracking gradients that can cause thermal stress and cracking. You'll spot potential risks early, protect concrete quality, and keep every structure strong and durable.



TRUSTED BY LEADING CONTRACTORS ACROSS THE US

Mortenson · Baker Concrete Construction · Lease Crutcher Lewis · Austin · McCarthy · STI Group · Litnko Contracting · Swinerton · Turner · Hensel Phelps · Pence / Kelly Concrete, LLC · Moore Concrete · Thalle Construction Company

And many more

PROJECT TYPES

- AIRPORTS
- DATA CENTERS
- HOSPITALS
- BRIDGES
- TUNNELS
- HIGH-RISE
- MIXED-USE BUILDINGS
- LARGE INFRASTRUCTURE

And many more

sales@converge.io
www.converge.io