



Adventum Tech Ltd.

TempSense

Technical data sheet

CONTACT US

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about Adventum Tech

Adventum Tech Limited is a Latvian based company, that focuses on development of revolutionary hardware and software for unique applications within construction, production, mobility and energy sector.

Our Team has extensive experience within focus industries across Baltic and Scandinavian countries, that gives a strong advantage understanding the need of the end customer, and value to the end product.

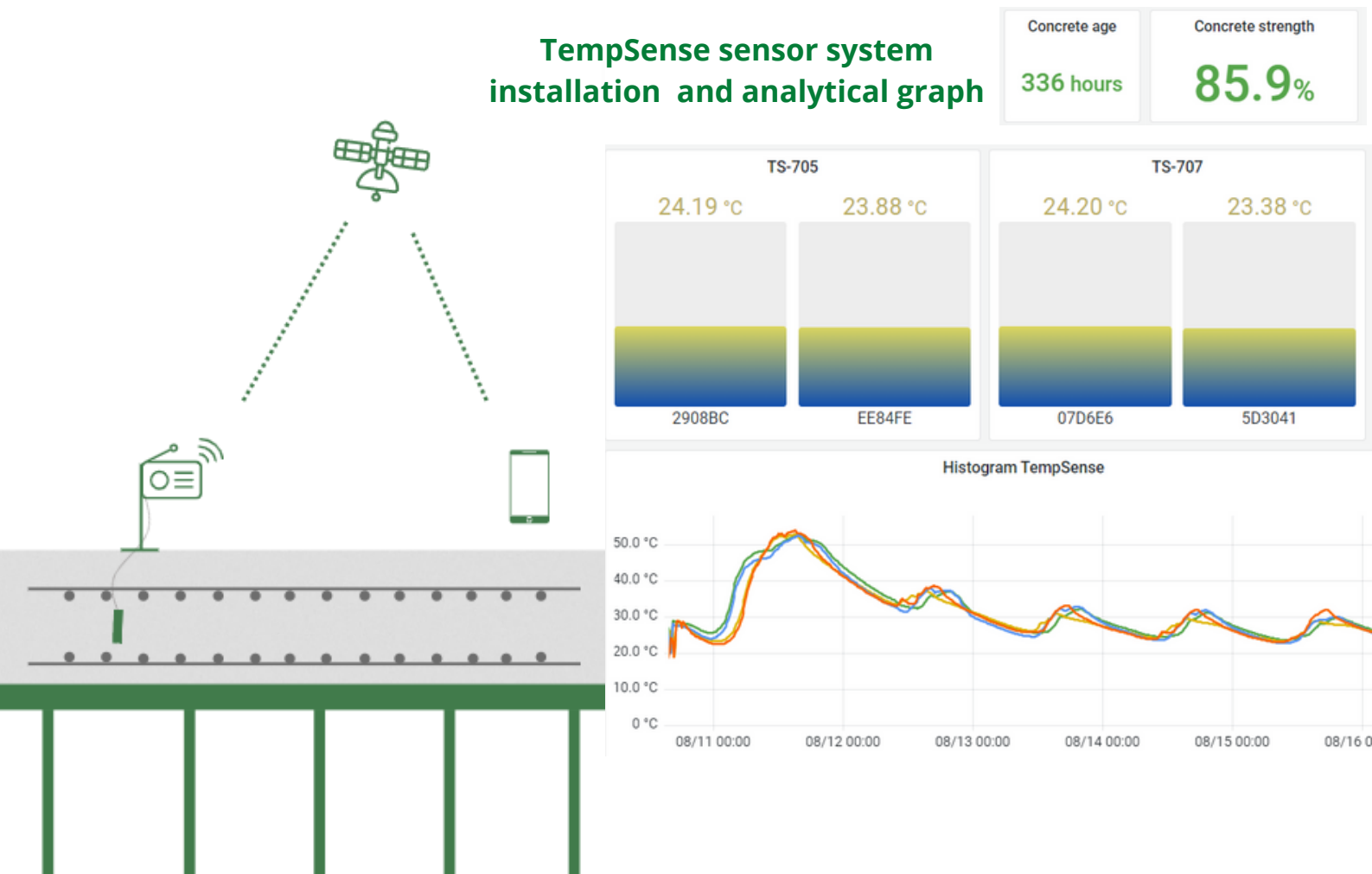


TempSense

TempSense is a hardware sensor solution designed to monitor curing temperature of concrete in reference to concrete's age. This sensor system is integral to the concrete curing process, facilitating precise data collection for subsequent analysis.

TempSense sensor system tasks are:

- to record concrete's curing temperature
- to record concrete's age
- to record air temperature
- to input recorded data for further analytics to estimate concrete's maturity and strength



Methodology

TempSense is wireless temperature measuring system that uses real-time concrete temperature to present curing status of in-situ casted concrete. The concrete strength is estimated based on the temperature history using the Maturity Method (ASTM C1074). The concept of maturity is based on the temperature history of the concrete which can be used both as a quality control measurement of concrete temperature as well as in-place strength of concrete prediction.

Temperature measurement is performed by using type K or digital thermocouple.

Standard concrete mixes are ready for use from Adventum Tech library. Available concrete mixes: C25/30, C30/40, C40/50, C45/55.

For individual concrete recipes the maturity development curve must be established. Contact Adventum Tech for more information.



TEMPERATURE MEASUREMENT

Range	from -100°C to +200°C
Thermo couple	Type K, Digital
Precision	± 1.5 °C (Type K) ±0.3 °C (Digital)

DIMMENSIONS

Size, mm	125 x 100 x 70
Weight, g	250

CONNECTICITY

Data transmission	4G, Wireless, LTE
Frequency	868 Mhz
Protocol	LoRa

BATTERY

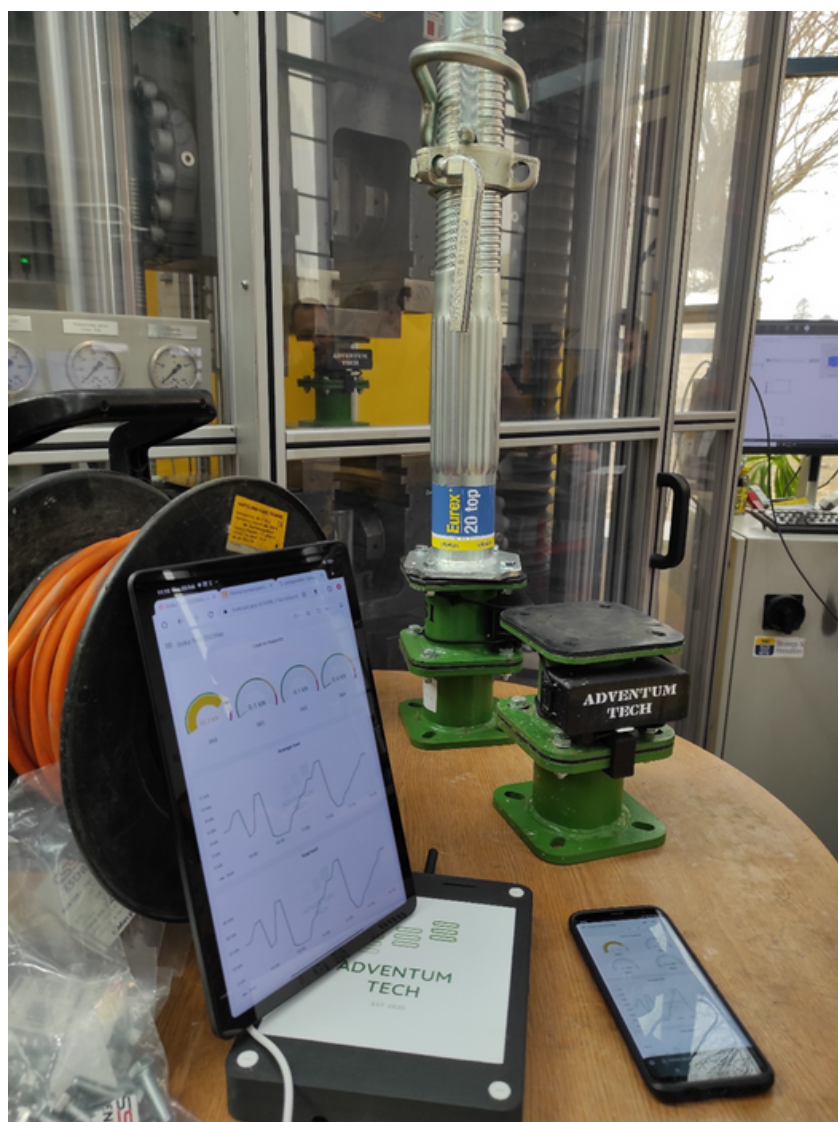
Type	Li-ion
Expended duration on 1 charge	1 year
Rechargable	Yes

ACCESSORIES

LED display
PV panel
Extended battery
Digital thermocouple

Liveload.app

All data is transmitted to the internet based software solution developed by Adventum Tech Ltd - **liveload.app** where the data is collected, stored, analyzed and displayed. Liveload.app service allows to keep valuable data with easy and protected access to all involved stakeholders in one place. The data is easily perceived and can be designed and modified according to the customer metric needs.



MEASURING THE INVISIBLE



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