ADVENTUM TECH

Product Datasheet: LiveLoad

Product code LVL-01-01

OVERDESIGN

CO2
FOOTPRINT REDUCING

SAFETY EXCELLENCE

RoHS compliant

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Product Overview

LiveLoad is a wireless structural load monitoring sensor developed by Adventum Tech to control and verify loadbearing conditions throughout the construction process and into long-term operation. Designed for temporary and permanent loadbearing systems, LiveLoad provides real-time insight into actual loads, enabling safer construction, validated sequencing, and reduced risk of overload or collapse.

LiveLoad is ideally suited for skyfolding systems, temporary formwork, shoring strut systems, heavy-duty shoring, and falsework, where continuous load verification is critical. In permanent applications, LiveLoad sensors can also function as bridge bearings or embedded load sensors, delivering continuous loadbearing data for bridges and structural assets throughout their service life.

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Key Features

- Real-time loadbearing monitoring throughout construction
- Continuous verification of temporary works and shoring systems
- Immediate overload detection with alerting
- Wireless, maintenance-free operation
- Applicable to both temporary and permanent structures
- Enables data-driven construction sequencing and handover

Measured parameters

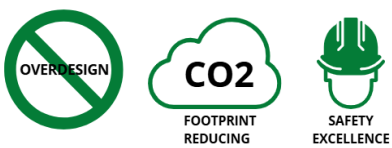
- Loadbearing capacity
- Support pressure distribution
- Cumulative applied load during reinforcement and concreting
- Earth anchor tension
- Uplift anchor tension

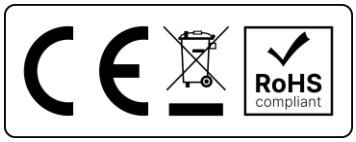
Construction Applications

- Scaffolding systems
- Temporary formwork and falsework
- Heavy-duty shoring and props
- Monitoring concrete placement and load buildup

Software & Data Integration

- Bridge bearings and load transfer points
- Permanent structural load monitoring
- Validation of design load assumptions





Technical Specification

Sensor type: LiveLoad Sensor Specification		
Parameters details Values	**Parameters details**	**Values**
Type	Strain Gauge	Strain Gauge
Internal memory	256 kB	GW 32GB
Power/Battery	18650 Li-ion battery	
LoadBearing - LiveLoad Technical Specification		
Parameters details **Values**		
Accuracy		±0.1kN
Resolution		0.01 kN
Range		0-150 kN
Physical Specification		
Parameters details **Values**		
Dimensions		120 x 120 x 85
Weight/Mass		1250g
Protection		IP 65
Material		Steel S355
Operating Temperature Range		Battery: -40° + 85°
		Sensor: -40° + 125°
Radio Specification		
Parameters details **Values**		
Range (estimation for urban and rural environment)		
Urban		0 - 1km
Sub-urban		1 - 3 km
Open space		3 - 5km
Fequency		868 MHz / 915 MHz
Data Transmission		Lora / LTE 5G
Configuration		Star Topology (Point to Point)
Battery Life (*estimation for static monitoring)		
Parameters details		
1 min		2 years
15 min		5 years
1h		10 years
6h		15 years
Dynamic mode battery lifetime depends on Project requirements and sensitivity