

WCCTV

Site Condition Monitoring Brochure



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Our mission is to detect, deter and provide digital evidence of crimes by supplying the highest quality surveillance technology backed by a comprehensive service and connectivity package.

David Gilbertson, CEO



WCCTV's Site Condition Monitoring Systems



Monitor Site Impact in Real Time

WCCTV's Site Condition Monitoring Systems track noise, dust, vibration, air quality and weather in real time. Designed for construction, demolition and infrastructure projects, these systems help you stay compliant, reduce disruption and demonstrate control throughout your build.

Designed as a bolt-on to our Rapid Deployment CCTV Towers, our Site Condition Monitoring Sensors enhance our service offering by combining remote project visibility, construction site security and environmental compliance into one system.

All sensor data is accessed through the same online dashboard used for your CCTV footage, giving you real-time oversight of both activity and impact. The units require no additional power source, can run without fixed infrastructure and are ideal for sites operating near sensitive areas.



Site Condition Monitoring Features and Benefits



Live Alerts and Threshold Warnings

You will receive instant notifications when your site exceeds pre-set noise levels, dust limits, vibration thresholds or air quality parameters, allowing you to act quickly before issues escalate.



Designed for Sensitive & High-Risk Locations

Our sensors are ideal for sites near homes, schools, hospitals, protected land or live infrastructure. They help to demonstrate best practise and reduce the risk of enforcement or delay.



Exportable Reports for Stakeholders

We generate reports to support Section 61 compliance, ESG reporting and local authority updates. This keeps your teams, clients and partners informed with clear, accurate data.



Multiple Environmental Monitoring Systems

Our sensors can measure the environmental factors most likely to trigger complaints, regulatory breaches or stoppages, including air quality, noise, vibration or extreme weather.



Gas & Particulate Sensor for Site Condition Monitoring

How does it work?

Our Gas & Particulate Sensor is a smart environmental monitoring device designed to track air quality in various settings. It detects key pollutants such as, gases and particulate matter while also measuring temperature and humidity levels.

This device collects and stores data over time, allowing users to monitor trends and ensure compliance with environmental standards. With remote access capabilities, users can conveniently retrieve real-time information through different platforms. Its durable design ensures reliable performance in different environments.



Product Benefits:

- Advanced Air Quality Detection
- Real-Time & Historical Data
- Remote Accessibility
- Automated Alerts & Controls
- Seamless System Integration

Product Applications:

- Construction Sites
- Industrial Facilities
- Commercial Buildings
- Schools & Universities
- Public Transport Hubs

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Weather Station for Site Condition Monitoring

How does it work?

The Weather Station is a wireless, all-in-one device that tracks various weather conditions in real time. It measures temperature, humidity, wind speed, wind direction, rainfall, UV levels and solar radiation. Designed for accuracy, it works in both extreme hot and cold environments, supporting both metric and imperial units.

With built-in calibration and reliable data publishing, it provides essential weather updates for various applications, such as outdoor monitoring, safety planning and environmental tracking.



Product Benefits:

- Comprehensive Wireless Weather Monitoring
- Real-Time & Historical Data
- Supports Both Imperial & Metric Units
- Calibration for All Measured Parameters

Product Applications:

- Construction Sites
- Farming & Agriculture
- Hospitals & Healthcare
- Wind & Solar Farms
- Transportation & Logistics

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Audio Sensor for Site Condition Monitoring

How does it work?

Our Audio Sensors help construction projects monitor and regulate noise levels for environmental and community considerations. The noise sensor uses a high-sensitivity condenser microphone that detects a range from 30dB - 120dB.

The high-sensitivity microphone can be utilised to take ongoing measurements around your site. Readings from the noise sensor are sent to the WCCTV Stellifii Platform, which presents the information within a graph. Ideal for urban projects, night works or sites operating near housing, schools or hospitals, the system helps you meet Section 61 requirements.



Product Benefits:

- Real-Time Noise Level Alerts
- Ensure Compliance with Noise Regulations
- Remote Monitoring via Online Portal
- Automatic Reporting & Audit Trails
- Seamless Integration with Tools

Product Applications:

- Residential Construction Sites
- Demolition Sites
- Quarries
- Excavation Sites
- Industrial & Civil Engineering Sites

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Vibration Monitoring for Site Condition Monitoring

How does it work?

Excessive ground vibration can damage nearby structures, trigger complaints and lead to costly investigations or delays. Our Vibration Monitoring Sensors track movement in real time and alert you when thresholds are exceeded, helping you act before issues escalate.

The system is ideal for piling, demolition, excavation or any activity taking place near buildings, utilities or sensitive infrastructure. It gives you the data you need to stay within limits and provide reassurance to project stakeholders and neighbours. Data is visible through the same dashboard used for your CCTV and environmental sensors.



Product Benefits:

- Real-Time Vibration Threshold Alerts
- Ensure Compliance with Vibration Limits
- Integrated Dashboard for Full Oversight
- Customisable Thresholds and Reports
- Reduced Risk of Project Delays

Product Applications:

- Piling Operations
- Demolition Projects
- Excavation Work
- Urban Construction Sites
- Sensitive Infrastructure Protection



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Product Specifications

Audio Sensor

Resolution	0.1dB
Measuring Range	30dB~130dB
Frequency Range	20Hz~12.5kHz
Response Time	≤3s
Noise Accuracy	±0.5dB (at reference pitch, 94dB@1kHz)

Weather Station

Temperature	Indoor Range	-40°C to 60°C
	Outdoor Range	-40°C to 60°C
	Accuracy	+/-1.0°C
Humidity	Measure Range	10% to 99%
	Accuracy	+/-5%
Wind	Speed Measure Range	0-50m/s
	Speed Accuracy	<10m/s:+/-1m/s, >=10m/s:10%
	Direction	0-359 degree
	Direction Accuracy	+/-12 degrees
Rainfall	Range	0-6000mm
	Accuracy	+/-10%



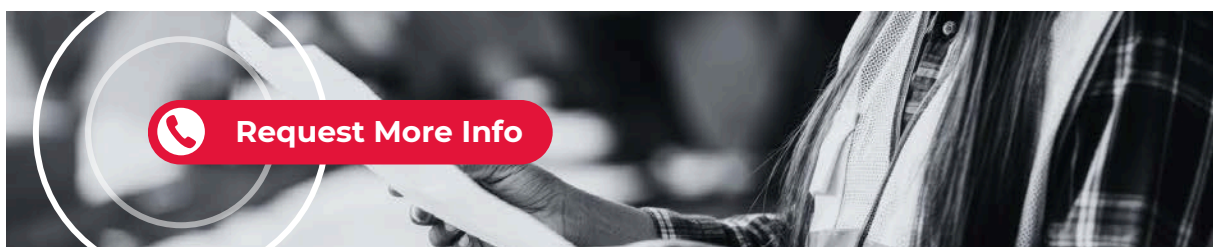
Gas & Particulate Sensor

Temperature	Range	-10~ +50°C
	Resolution	0.1°C
	Accuracy	±0.6°C
Humidity	Range	0 ~ 100% RH
	Resolution	0.1% RH
	Accuracy	±5% RH
	Life Time	10 Years
Dew Point	Range	Calculated using temperature and relative humidity
	Resolution	0.1°C
CO Measurement	Range	0 to 1000 ppm (Electrochemical)
	Resolution	1 ppm
	Accuracy	±5% of measured value
	Response Time	30 seconds
	Warm-up Time	60 seconds
	Life Time	5 years
	Range	0 to 9999 ppm (NDIR)
CO2 Measurement	Resolution	1 ppm
	Accuracy	±30 ppm ±3% of measured value
	Response Time	120 seconds
	Warm-up Time	300 seconds
	Life Time	15 years



WCCTV Gas & Particulate Sensor Continued

PM1/PM2.5/PM10 Measurement	Range	0 to 1,000 µg/m ³ (Laser Type)
	Resolution	1g/m ³
	Accuracy	±10% of FSR.
	Response Time	1 second
	Warm-up Time	20 seconds
	Life Time	5 years, Customer has to replace the filter patch
Particle	Sizes	0.3µm, 0.5µm, 1µm, 2.5µm, 5µm, 10µm,
	Life Time	5 years, customer has to replace the filter patch
TVOC Measurement	Range	0 ppb to 60000 ppb (MEMS Metal Oxide)
	Resolution	1 ppb
	Accuracy	±15%
	Response Time	60 seconds
	Warm-up Time	180 seconds
	Life Time	5 years



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