

DustCloud

Cloud-Based Dust Monitoring Service



Real-Time Monitoring,
Alerts and Reporting for
Dust Measurement Data

DustCloud - When Dust Measurement Points Are Spread Across the Site

Industrial dust monitoring often involves multiple measurement points, sometimes across several locations. Measurement data is useful only if the right people can see what is happening, recognize abnormal conditions and find the measurement point that needs attention. Without centralized access, checking measurement trends, device status and alarms requires separate systems and local data collection.

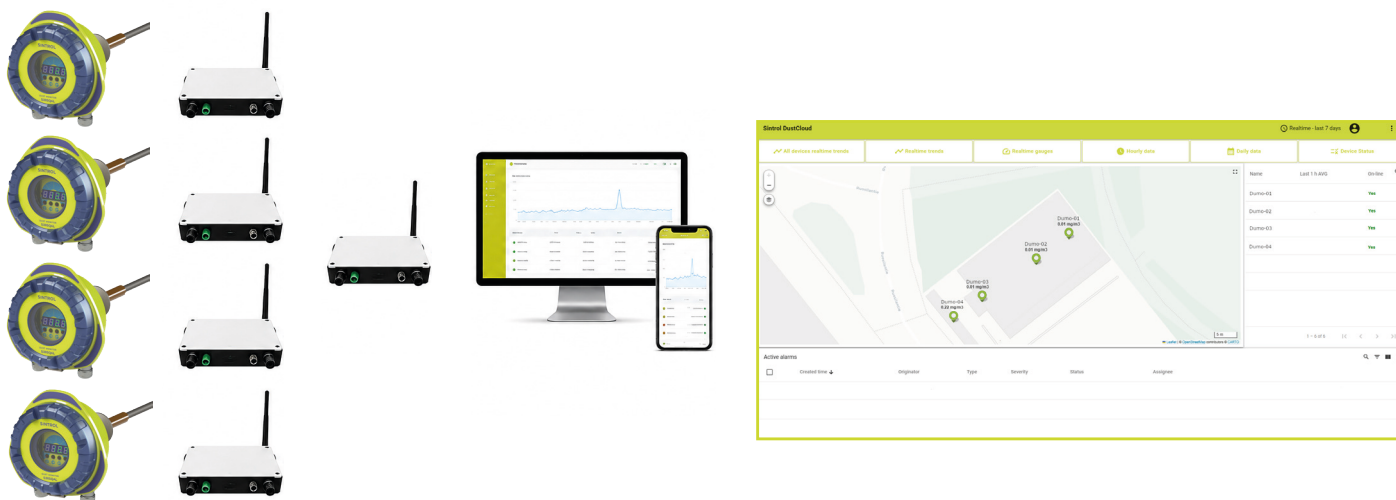
DustCloud brings measurement data, device condition and alerts into one view

DustCloud is a cloud-based SaaS platform for collecting, storing, visualizing and reporting measurement and diagnostic data from Sintrol dust monitoring devices. It gives authorized users remote access to current and historical measurements, device status and alerts through web and mobile interfaces.



Centralized oversight

- Monitor multiple Sintrol dust monitors and measurement locations from one DustCloud environment.
- Use map, device-list and overview views to identify the status of connected devices.
- Open a single measurement point directly from the overview for closer review.



LoRaWAN®

Connect multiple dust monitors across your site via LoRaWAN® wireless communication, eliminating the need for costly communication cabling. Monitor all devices at a glance and receive instant alerts whenever action is required.



4G

Receive measurement data from anywhere in the world via secure 4G connectivity. Consolidate all critical monitoring information in one platform for effortless reporting, faster decision-making, and rapid response to abnormal process events.

Current and historical measurement data

- View measurement trends for individual devices or compare several devices in the same view.
- Review 15-minute, hourly and daily averages over a selected time period.
- Use historical trends to distinguish an isolated event from a recurring or longer-term change.

Alerts when attention is needed

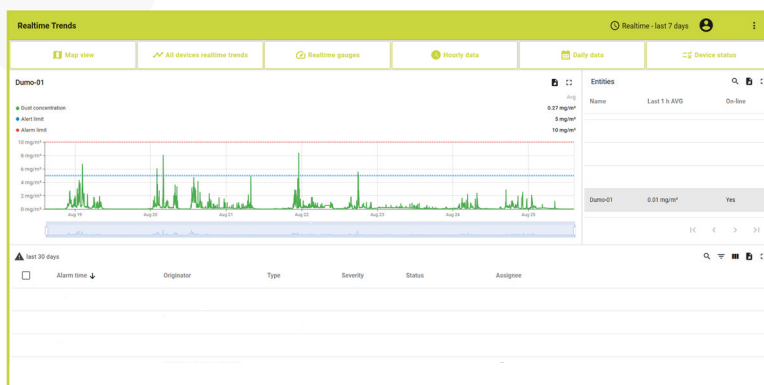
- Measurement threshold exceeded.
- Device offline.
- Diagnostic condition or detected device fault.
- Notifications by email and/or SMS according to the configured alert settings.

Monitor Measurement Trends, Alarms and Device Status

A high dust value and an instrument problem require different actions. DustCloud shows measurement trends together with communication status and device diagnostics in the same monitoring environment.

Device-specific monitoring

- Current and historical measurement trends.
- Device communication status and last received data.
- Measurement alarm limits and active alarms.
- Device-generated diagnostics and fault indicators.
- Alarm history for follow-up and troubleshooting.





Reporting and data export

- Hourly averages.
- Daily averages.
- 15-minute averages and detailed 15-minute measurement data.
- Highest 15-minute averages for hourly and daily review.
- Export from supported views to Excel or CSV for further analysis.

From the Measurement Point to DustCloud

From measurement data to action

- Your connected Sintrol dust monitor sends measurement and diagnostic data to DustCloud.
- DustCloud stores the data and presents it in dashboards, trend views and history views.
- Configured rules evaluate measurement thresholds, communication status and diagnostic conditions.
- DustCloud generates alerts when a configured condition is met.
- Authorized users access the same information through authenticated web and mobile interfaces.

Installation and Commissioning

DustCloud is delivered as a pre-configured service. Sintrol prepares the DustCloud environment, user access and alert settings based on customer-provided information. The customer or authorized Sintrol partner installs the measurement equipment and provides the required power and connectivity. The service is commissioned when the devices successfully connect to DustCloud.

Customer or authorized partner

- Mechanical installation and power supply
- 4G SIM card or other connection
- Plug and play operation



Sintrol

- Supply pre-configured hardware.
- Pre-configure the DustCloud environment for the customer.
- Create and configure user access based on customer-provided information.
- Configure alert recipients and notification methods.
- Operate, maintain and update the DustCloud service.



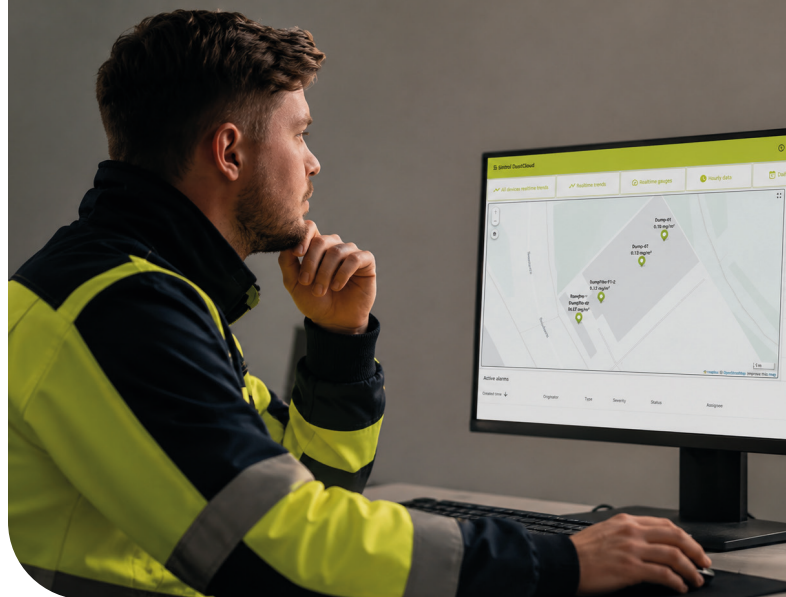
Included in the DustCloud service

- Secure data acquisition, transfer, and storage safeguard valuable measurement information.
- Full use of dust monitor diagnostics supports data validation, ensuring confidence in measurement and reporting accuracy.
- Use it anywhere: web interface or mobile app for Android and iOS.
- A wide range of preconfigured dashboards, historical views, and reporting tools for efficient data analysis and decision-making.
- Intelligent alert management directs critical notifications to the appropriate personnel for rapid response.



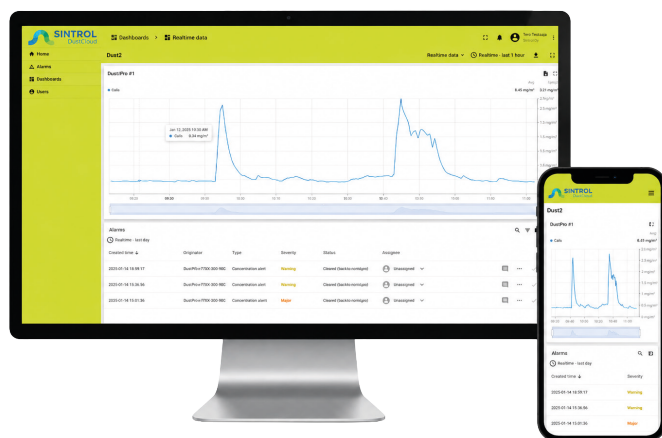
Data and service

- The customer retains ownership of its measurement and diagnostic data.
- Measurement data can be exported on request in a commonly used, machine-readable format.
- Personal data is hosted within the European Union unless otherwise agreed in writing.
- Role-based access control, authentication, logical customer-data separation, monitoring and logging are used to protect the service.



Typical use cases

- Monitoring dust emissions from industrial processes.
- Environmental monitoring in industrial environments.
- Centralized monitoring of multiple measurement locations.
- Compliance and internal follow-up reporting.
- Early detection of abnormal dust levels or device malfunctions.



Technical Specifications

Parameter	Value
Service model	Cloud-based SaaS
Supported devices	Supported Sintrol dust monitors and approved communication modules
Data collection	60 seconds with LoRaWAN; 20 seconds with 4G
Standard views	15-minute, hourly and daily averages; current and historical trends
Connectivity	4G or LoRaWAN, depending on device configuration
Access	Web browser, Android, iOS
Device communication	One-way
Communication package power supply	24 VDC +/-10% / 100-240 VAC, 50-60 Hz Up to 10 W
System setup	Pre-configured by Sintrol
Standard data retention	12 months
Service availability target	99% per calendar month for core functions, subject to SLA exclusions



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Sintrol Oy is certified to ISO 9001.
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