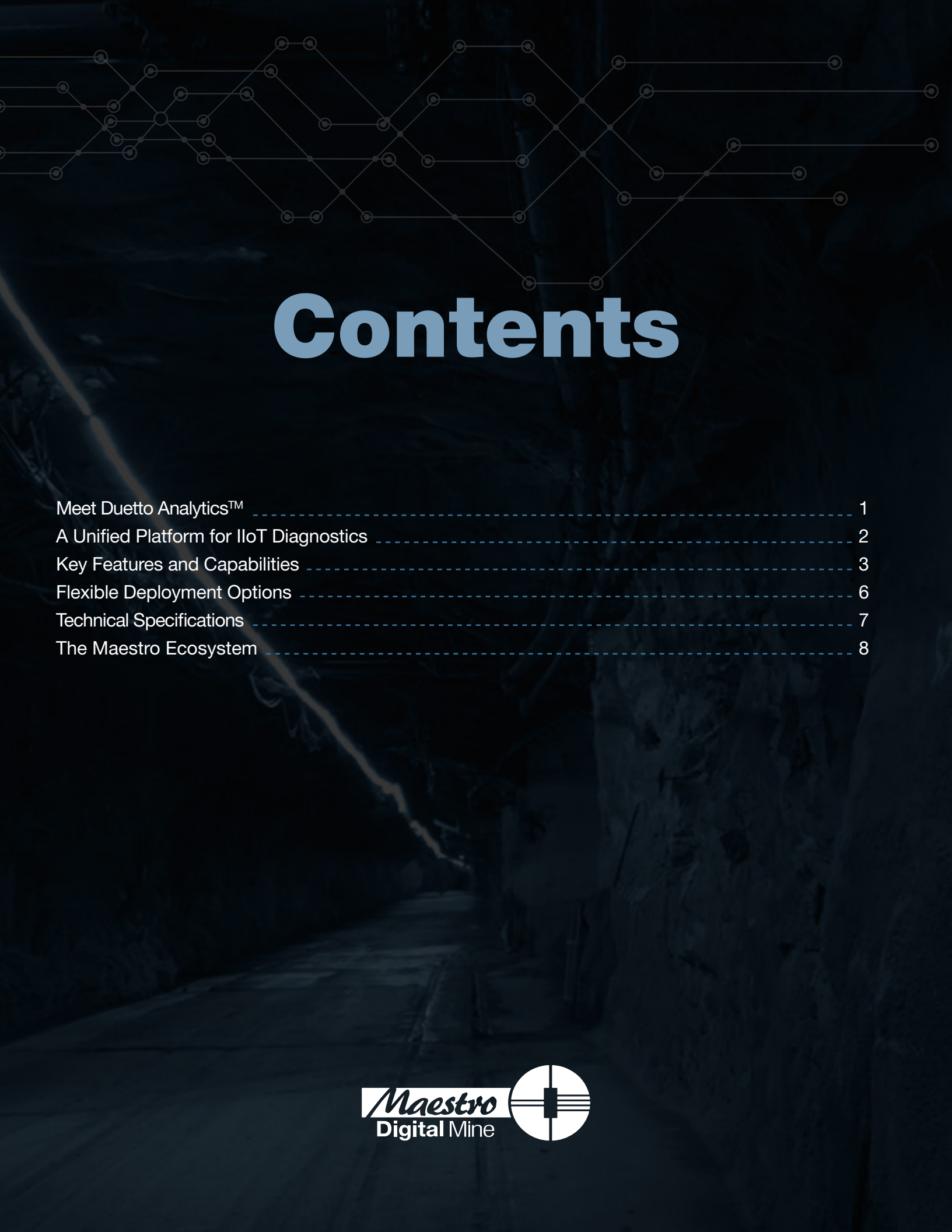


Real time data means more time at the face.





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Meet Duetto Analytics™

The Duetto Analytics™ is Maestro Digital Mine's intelligent diagnostics and analytics platform designed to unify your operational data into one actionable interface. Built to operate securely within your process control network, Duetto empowers operations teams with real-time visibility, advanced trending, and predictive maintenance tools across a wide range of IIoT infrastructure.

It's more than just a visualization tool — Duetto Analytics™ transforms your raw data into operational certainty.

Why Duetto Analytics™?

Underground mining operations depend on accurate data to drive ventilation, safety, equipment health, and productivity. But as infrastructure expands, keeping tabs on the condition, performance, and calibration of hundreds or thousands of sensors becomes overwhelming.

Duetto Analytics™ was purpose-built to address these challenges by:



Consolidating insights across Maestro's full product ecosystem.



Reducing downtime through predictive diagnostics and historical failure analysis.



Enabling rapid blast clearance assessment with advanced trending tools.



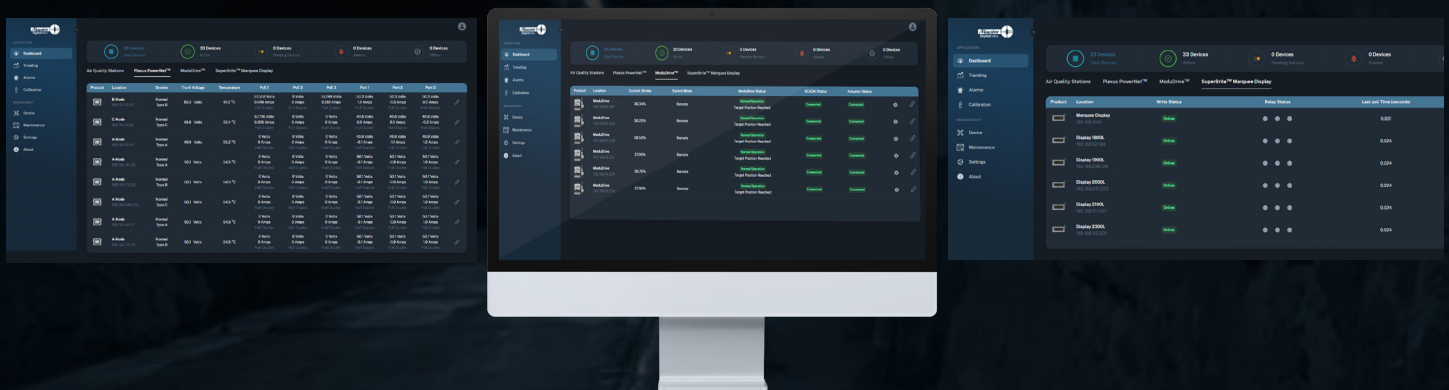
Strengthening compliance and performance tracking through calibration records and alarm logs.

Deployed virtually or as a dedicated appliance, Duetto Analytics™ helps mines operate smarter — with fewer surprises, and greater control.

A Unified Platform for IIoT Diagnostics

Duetto Analytics™ integrates seamlessly with Maestro Digital Mine's IIoT product suite, providing centralized access and control for:

Vigilante AQS™	Air quality monitoring
Zephyr AQS™	Environmental monitoring
ModuDrive™	Automated regulator control
MaestroFlex™	Automated ventilation regulators
Plexus PowerNet™	High-bandwidth, PoE digital backbone
Ethernet I/O™ (EIO)	Distributed digital input/output devices
DustMon PM™	Particulate monitoring systems



Whether you're managing airflow, tracking gas levels, or automating ventilation adjustments, Duetto consolidates these functions into a unified operational interface.

Key Features and Capabilities

1



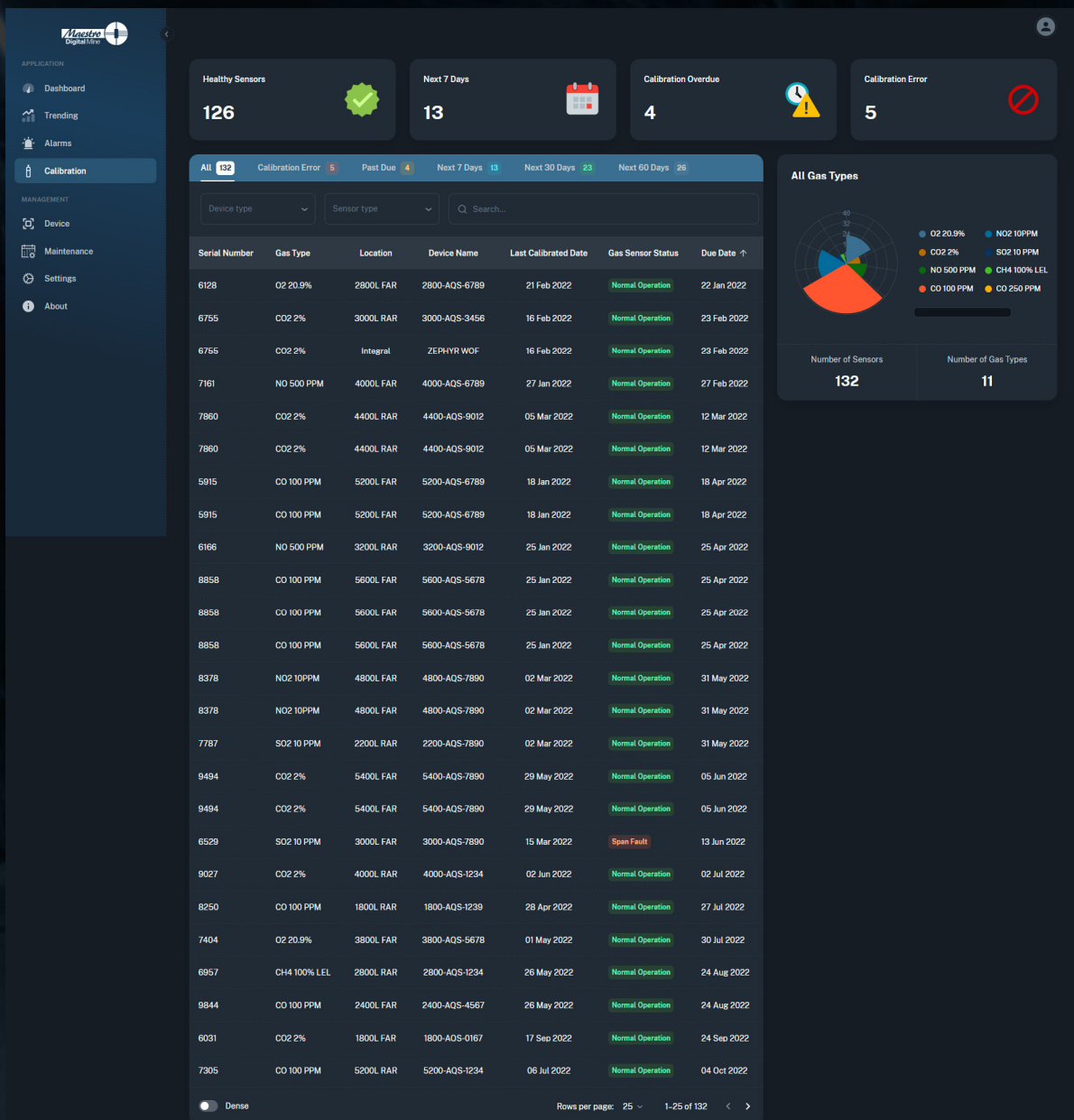
Diagnostics & Health Monitoring

Real-time condition monitoring of all connected Maestro devices

Identification of expired or defective sensors

Clear indicators for calibration status and device performance over time

Advanced failure analysis with historical data sets (airflow, temperature, humidity, gas values)



2



Trending & Historical Insights

Sensor-level trending with configurable dashboards

Simultaneous trending of multiple sensors for blast clearance workflows

Historical trending across one or more time windows, depending on memory and processing availability

Customizable dashboards per user, shift, or department



3



Alarm Management & Notifications

Configurable alarm severity levels with persistent logs
Email alerts for high-priority alarms (SMTP setup required)
Role-based access ensures relevant alarms are routed to the right personnel

APPLICATION

Dashboard

Trending

Alarms

Calibration

MANAGEMENT

Device

Maintenance

Settings

About

224 Records
Total

4 Records
Warning

142 Records
Alarm

78 Records
Acknowledged

All 224

Warning 4

Alarm 142

Acknowledged 78

Device

Start date

End date

Search...

142 results found

Status: alarm Clear

Station Name	Timestamp ↑	Alarm	Sensor	Description	Value	Duration	Acknowledged
DRIFT 1800 192.168.10.65	31 Jul 2025 11:10:22 AM	Alarm	CO 1800L_RAR	Gas Sensor Sensor Disconnected	-99.9 ppm	2 hrs 6 mins 10 secs	
DRIFT 1800 192.168.10.65	24 Jul 2025 11:16:45 AM	Alarm	Airflow 1800L	Airflow Sensor Sensor Blocked	0 ft/min.	5 mins 31 secs	
DRIFT 1800 192.168.10.65	24 Jul 2025 11:15:37 AM	Alarm	CO 1800L_RAR	Gas Sensor Sensor Disconnected	-99.9 ppm	6 mins 20 secs	
DRIFT 1800 192.168.10.65	21 Jul 2025 2:49:27 PM	Alarm	Airflow 1800L	Airflow Sensor Sensor Blocked	0 ft/min.	26 mins 58 secs	
DRIFT 1800 192.168.10.65	21 Jul 2025 2:47:51 PM	Alarm	CO 1800L_RAR	Gas Sensor Sensor Disconnected	-99.9 ppm	29 mins	
DRIFT 1800 192.168.10.65	21 Jul 2025 12:48:43 PM	Alarm	CO 1800L_RAR	Gas Sensor Sensor Disconnected	-99.9 ppm	7 mins 44 secs	
DRIFT 1800 192.168.10.65	17 Jul 2025 3:24:12 PM	Alarm	CO 1800L_RAR	Gas Sensor Sensor Disconnected	-99.9 ppm	0 mins 3 secs	
DRIFT 1800 192.168.10.65	17 Jul 2025 10:35:30 AM	Alarm	Airflow 1800L	Airflow Sensor Sensor Blocked	0 ft/min.	1 mins	
DRIFT 1800 192.168.10.65	17 Jul 2025 10:20:57 AM	Alarm	Airflow 1800L	Airflow Sensor Sensor Blocked	0 ft/min.	0 mins 33 secs	
DRIFT 1800 192.168.10.65	17 Jul 2025 9:46:25 AM	Alarm	Airflow 1800L	Airflow Sensor Sensor Failed	0 ft/min.	2 mins 23 secs	

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4



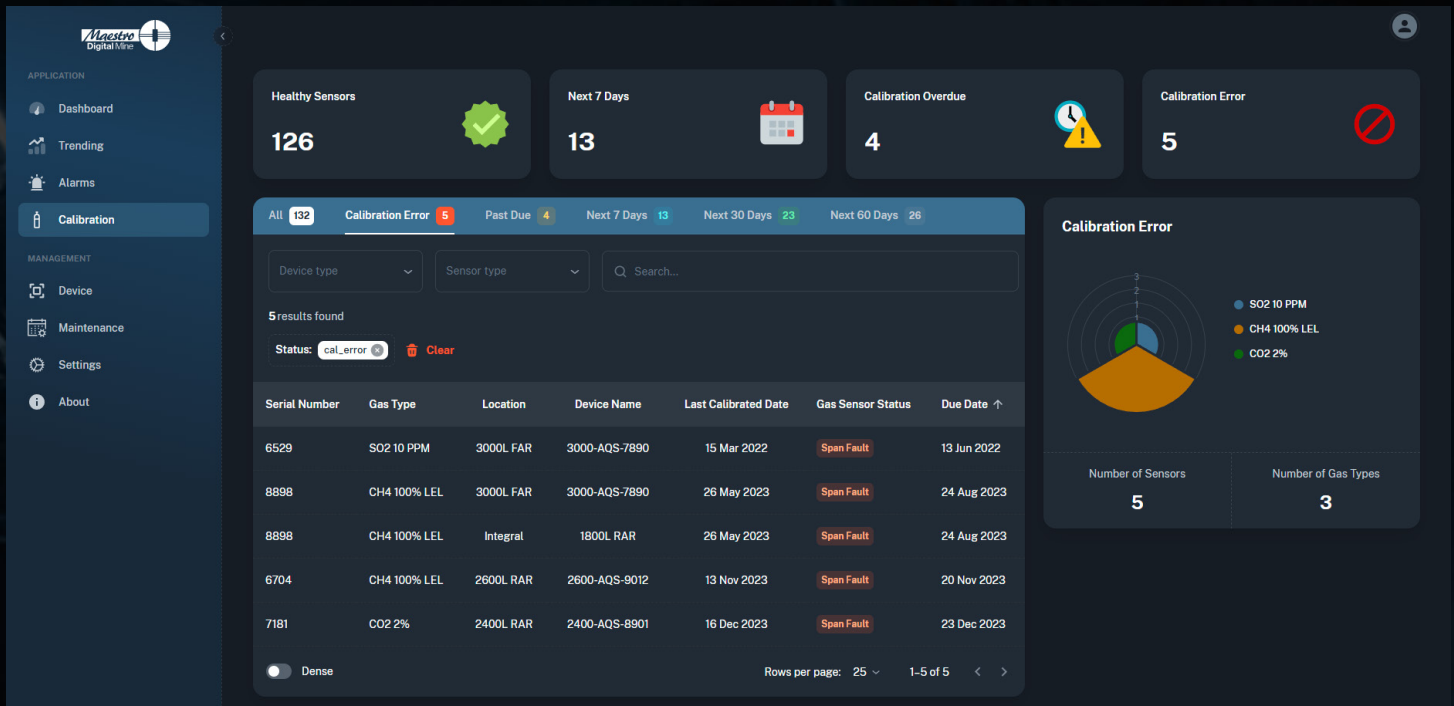
Predictive Maintenance Functions

Early detection of sensor or network issues through intelligent pattern analysis

Visual health maps by location, product, or system

Maintenance SOPs and documentation tied to individual device cards

Downloadable sensor diagnostics and calibration records for audit compliance



Flexible deployment options

Duetto Analytics™ can be deployed in two configurations

Physical Appliance (DAP-X-PLS)

Supplied as an industrial-grade compute module (Jetson Orin NX 16GB)
Passive cooling, PoE Ethernet, DIN/VESA/desktop mounting
Ruggedized for process control network use (no SCADA or internet required)

Virtual Installation (DAP-X-NR)

Hosted within Hyper-V or VMware on your existing infrastructure
No dependency on cloud, SCADA, or external servers
Compatible with internal security, backup, and network policies

Whether you're managing airflow, tracking gas levels, or automating ventilation adjustments, Duetto consolidates these functions into a unified operational interface.

Technical Specifications

(Appliance)

Computer Module

NVIDIA Jetson Orin NX 16GB
100 TOPS AI performance
8-core Arm® Cortex® CPU
1024-core NVIDIA Ampere GPU
2TB NVMe SSD (included)

I/O Interfaces

2x RJ45 GbE (2x PoE)
4x USB 3.1, 1x HDMI 2.1
1x DB9 Serial (RS232/422/485)
4x DI / 4x DO
1x Nano SIM

Environmental

Fanless, -20 to 60°C operation
DIN, desk, or VESA mount
Certifications: FCC, CE, RoHS, UKCA, KC

Ready to Operate Smarter?

Duetto Analytics™ is already in use across major mining operations looking to modernize their underground systems without the cost and complexity of traditional SCADA or third-party solutions.

Whether you're building a new site, scaling your ventilation control, or simply want to take the guesswork out of maintenance and alarms — Duetto gives you the tools to act with confidence.

The Maestro Ecosystem



Vigilante AQS™
Air Quality Stations



SuperBrite™
Marquee Display



Plexus PowerNet™



ModuDrive™
IoT Ethernet Actuators



Website
maestrodigitalmine.com



YouTube
[@maestrodigitalmine6760](https://www.youtube.com/@maestrodigitalmine6760)



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