



MineARC Aura-FX

Digital Fixed Gas Monitoring System

Designed to individually monitor gases via a series of user-friendly, digital screens.



auraFX



MineARC Systems - Built for Safety.

www.minearc.com



Aura-FX

Digital Gas Monitoring

Gas monitoring is an essential aspect of maintaining a life supporting atmosphere within the refuge chamber. During entrapment, occupants consume oxygen and expire carbon dioxide (CO₂) and carbon monoxide (CO) as part of their normal respiration. CO can also enter the chamber during occupant entry and if the compressed air intake is compromised.

Closely monitoring gas levels in the chamber allows occupants to take corrective actions to maintain a safe and inhabitable environment.



AURA-FX-RM

MineARC's Aura-FX Digital Gas Monitoring System is a fixed gas monitoring unit, designed specifically for use in refuge chambers and safe havens.

A vast improvement on current Digital Gas Monitors (DGMs) on the market, Aura-FX provides a more convenient solution to internal refuge chamber gas monitoring. Aura-FX has the ability to individually monitor up to 11 gases, plus the internal chamber temperature, via a series of user-friendly digital screens.

Audible voice alarms are linked to the Aura-FX unit and will prompt occupants to replace scrubbing chemicals or adjust oxygen supply levels into the refuge chamber as required.

Aura-FX is standard on all new MineARC Refuge Chambers and Safe Havens. It is also available to retrofit to most existing chambers during an upgrade or refurbishment. Aura-FX is available as a Rack Mount (up to 11 gases) or Compact Model (3 gases).

Standard Features

- Real-time gas monitoring with live analysis
- Triple gas monitoring as standard, with option to monitor up to 11 gases if required
- Internal chamber monitoring, with option to test external atmosphere if required
- Intuitive scrolling digital display shows gas level trends
- Audible alarm and instructional voice prompts for procedures
- Ethernet connectivity allows remote monitoring over the network
- Secure, anti-theft in-built design
- Reduced risk of human error
- Greater servicing efficiency and cheaper replacement parts compared to other digital gas monitors



AURA-FX-CM

Aura-FX

Digital Gas Monitoring

Gas Sensor Range

The gas sensor range for the Aura-FX Digital Gas Monitor includes oxygen, carbon monoxide and carbon dioxide as standard.

Additional gas sensors available for site requirements include: ammonia, hydrogen sulfide, chlorine, nitric oxide, nitrogen dioxide, sulfur dioxide and methane.

Gas sensors are easily clipped into the Aura-FX unit, then calibrated to verify they are operating correctly. Aura-FX gas

sensors can be calibrated insitu, without the need to bring the unit to the surface. Each sensor is flooded with calibration gas of known composition, and the sensor reading is adjusted to match the target accordingly. This is conducted using the touchscreen interface on each monitor.

When sensors reach the end of their service life, they are replaced simply by removing the click-in cover, pulling out the old sensor board, pushing in the new one, then followed up with a bump test (functional test).



Service

In contrast to most other Digital Gas Monitors on the market, Aura-FX sensors require a service and calibration just once every 12 months.

During a service, a trained technician will conduct a visual inspection of all hardware; verifying that it is operating correctly by adjusting the environment surrounding the sensors and ensuring that they respond appropriately.

Calibration may also be required after emergency use, after high exposure to gases (for example, if the chamber door has been left open), or after chamber commissioning.

Aura-FX software includes an internal clock that will alarm to indicate sensor change-out and calibration. Sensors are automatically time-stamped upon installation, prompting the appropriate countdown of either 12 months or 36 months.





DANGER
NO SMOKING
PURE OXYGEN

8-9



AIR CONDITIONING
RUN AT 30° C (86° F)
ON BATTERY ONLY

3

MARCISORB CO₂ MARCISORB CO₂

CO₂ CO₂ CO₂

MAINS BREAKER
BATTERY ISOLATION SWITCH

DANGER
MAINS POWER
220-240 VOLTS
AC 50/60 HZ

3

A/C BURNER
MANUAL GAS SAMPLING
OXYGEN REGULATOR
OXYGEN CANDLE
IGNITOR MATCH

2

10

4



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