

# Strata**CONNECT** Wireless AMS

Completely Wireless & Battery-Powered  
Atmospheric Monitoring System (AMS)





## WIRELESS ATMOSPHERIC MONITORING

Strata's AMS is a wireless and battery-powered system designed for harmful gas detection and atmospheric monitoring in underground environments. The system uses battery-powered Sentro Wireless units which can each monitor a variety of different gases. These devices operate on the StrataConnect Wireless mesh network to transmit the data to the surface.

Operators on the surface can monitor any number of Sentro Wireless devices on the network and receive real-time gas readings from all installed areas underground.

Sentro Wireless can function as an internal relay contact enabling remote on/off control of underground devices and can be used in automating processes such as underground ventilation control. (See Strata's Automated Ventilation and Control System for more information)

## BENEFITS

- Completely wireless and battery-powered
- Hassle-free and cost-effective installation and maintenance
- Fully operational in the event of power loss
- Pre-calibrated input sensing "eModules" that detect a range of gases
- Fixed-point heavy-duty sensor and long-life battery

- Two-way communication for remote command and control of sensors
  - On/Off
  - Reading and setting I/O
  - Manipulate thresholds
  - Alarm activation/deactivation

## DATA TRANSMISSION & GUI DISPLAY

- Secure data transfer over Strata wireless networks to a central control server and Graphical User Interface (GUI)
- Data can be displayed on the StrataConnect GUI or be integrated into an existing automation software through Strata's MODBUS Gateway and OPC Interfaces

### Data displays include:

- Individual sensor operating status
  - Normal
  - Alert
  - Alarm
- Individual sensor maintenance status
  - Battery voltage
  - eModule status
  - Serial number status
  - Communications network connection
  - Date of last calibration



eModules



## SENTRO WIRELESS

- Wireless gas detector suitable for hazardous and harsh environments. Intrinsically safe
- Up to 64 different gas options (CO, CH4, O2, CO2, H2S, ++)
- Large LED screen
- Built-in visual alarms LEDs
- Programmable alarm setpoints
- IP65-rated and EMC-protected
- 4 x Energizer E95/EN95 D-type Alkaline Cells
- Single gas sensor with quick and easy removal and exchange. Calibration onsite or remote

## STRATACONNECT™ SERVER WITH GRAPHICAL USER INTERFACE

Multi-layered interface to toggle between system displays

Wireless Connection

Monitor Battery Voltage

Status Alert/ Alarm Status

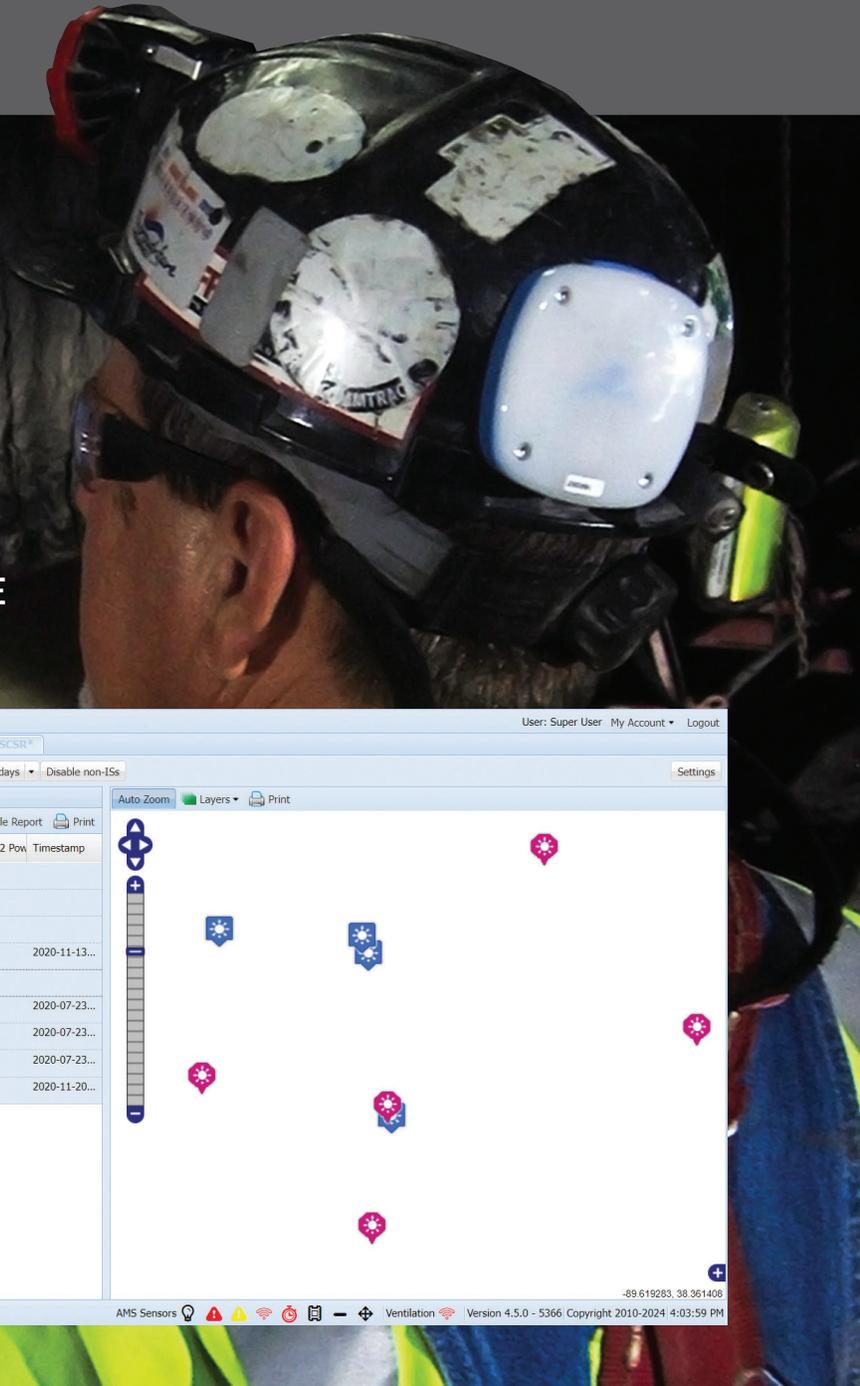
Maintenance Status

Visual mine map plotting location and displaying status of individual sensors

Name	Network ID	Type	Value	Units
Crusher To...	4808	none	0	none
Take - up M...	3734	CO	0	PPM
1R Belt Driv...	4820	none	0	none
Upper #2 B...	3444	IR-CH4	0	%
2W Section ...	4824	none	0	none
MW XCS E4...	3351	CO	0	PPM
MW XC13 E...	3352	CO	0	PPM
MW XC17 E...	3425	CO	0	PPM
MW XC21 E...	3335	CO	0	PPM
1R Belt Driv...	4817	none	0	none
Lower #2 B...	3381	IR-CH4	0	%
1R Headrol...	7358	CO	2	PPM
SM XC 18 E4	7360	CO	0	PPM
WAC1 Secti...	4852	none	0	none
2W Headrol...	7604	CO	0	PPM
2W Belt Dr...	3339	CO	0	PPM
4W Section ...	4853	none	0	none
3W Section ...	4838	none	0	none

## Sentro Wireless Technical Information

Supply voltage:	6V DC from internal batteries
Wireless output signal:	915MHz
Alarm output:	Alarms can be selected to operate at two adjustable set-points with option for built-in visual alarms
eModule working life:	Over 12 months dependent upon eModule type and monitoring conditions
Operating temperature range:	-20 to +40 °C (-4 to +104°F)
Humidity:	95% non-condensing
Storage temperature limits:	-20 to +60 °C (-4 to +140°F)
Housing materials:	Reinforced polymer
Protection classification:	Housing dust and waterproof to IP65, Gas port protected to IP54
Weight:	1.4 kg (3 lbs)
Mounting:	By attachment point on the top of the housing
Certification:	Group I - IECEx, MSHA, EAC



## VENTILATION MONITORING, REMOTE CONTROL AND AUTOMATION

Strata Admin | Admin | Proximity | Commtrac\* | AMS | Belt Monitoring\* | WIFI | Shaft Clearance | SCSR\* | User: Super User | My Account | Logout

1 of 1351 : 2024-01-02 20:20:21 - Unknown type ATest Second Sensor #262143 (New Device) has not been calibrated in 19726 days | Disable non-15s | Settings

Name	Network ID	Sensors	Fan 1 Spe	Fan 1 Power	Fan 2 Speed	Fan 2 Pow	Timestamp
Secondar...	2790		0	0	0	0	
Warehou...	3233		0	0	0	0	
Secondar...	3274		0	0	0	0	
Warehou...	6969		16	0	0	0	2020-11-13...
Secondar...	7300		0	0	0	0	
Chile PLC...	10901		15	0	0	0	2020-07-23...
Chile PLC...	10902		0	0	0	0	2020-07-23...
Chile PLC...	10903		15	0	0	0	2020-07-23...
Chile Ven...	10904		16	0	0	0	2020-11-20...

Map view showing sensor locations on a site map with various icons and a zoom control.

AMS Sensors | Ventilation | Version 4.5.0 - 5366 Copyright 2010-2024 4:03:59 PM



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