

Strata RigGuard™

Toxic and combustible gas early warning detection system



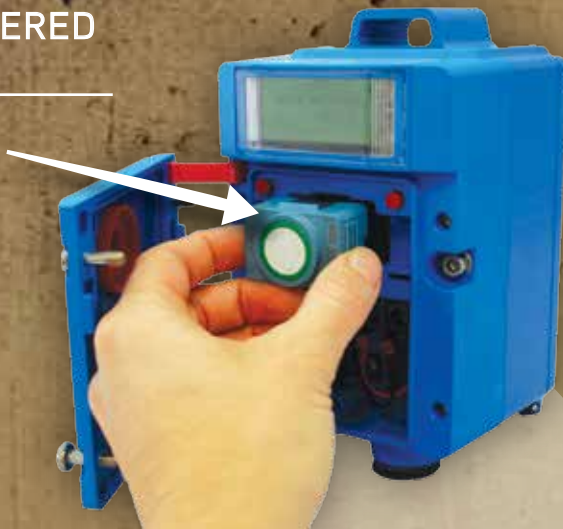
RigGuard is a completely wireless, battery-powered gas monitoring system that detects and alerts drill rig personnel of toxic and combustible gases such as Hydrogen Sulfide (H₂S), Methane (CH₄), Carbon Monoxide (CO), and Oxygen (O₂) during drilling operations.

Magnetically mounted to the drill rig, RigGuard continuously monitors gas concentrations and emits audible and visual warning alarms when levels rise. The system's quick and easy installation enables the sensors to be moved and relocated as needed.

RigGuard utilizes Strata Worldwide's secure communications network to automatically transmit data from the sensors to an operator's PLC display in the doghouse. Continuous gas concentration levels, battery life, and warning alarms are monitored. The network can also interface with the Internet via cellular or satellite, enabling remote monitoring and centralized data collection across multiple rigs.

BATTERY POWERED SENTRO

Exchangable E-Module sensors



Doghouse with PLC inside and antenna mounted to the outside.

SAMPLE TOXIC GASES

- H₂S
 - CH₄
 - CO
 - O₂
- (Up to 64 options)

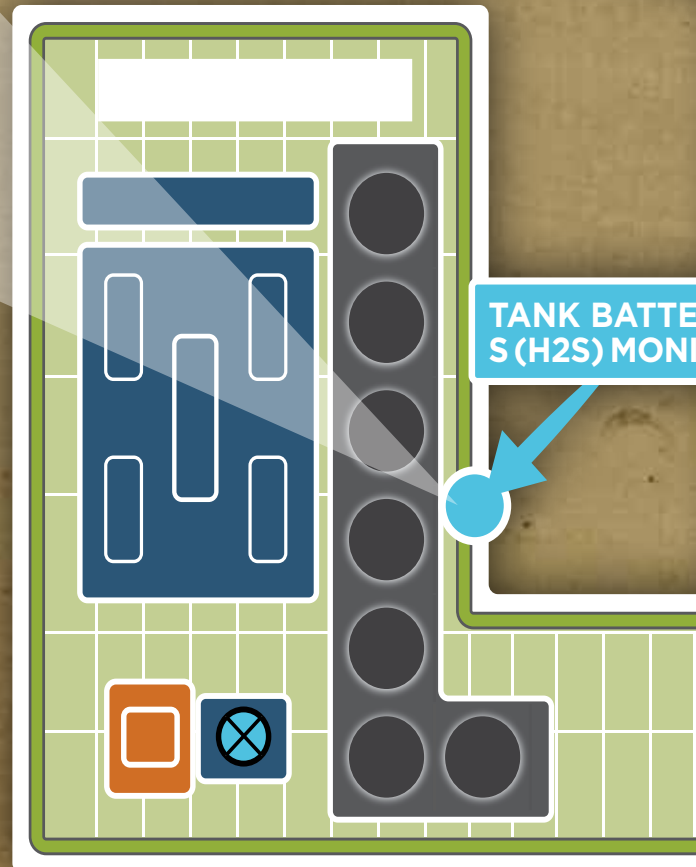
ADDITIONAL SENSOR OPTIONS

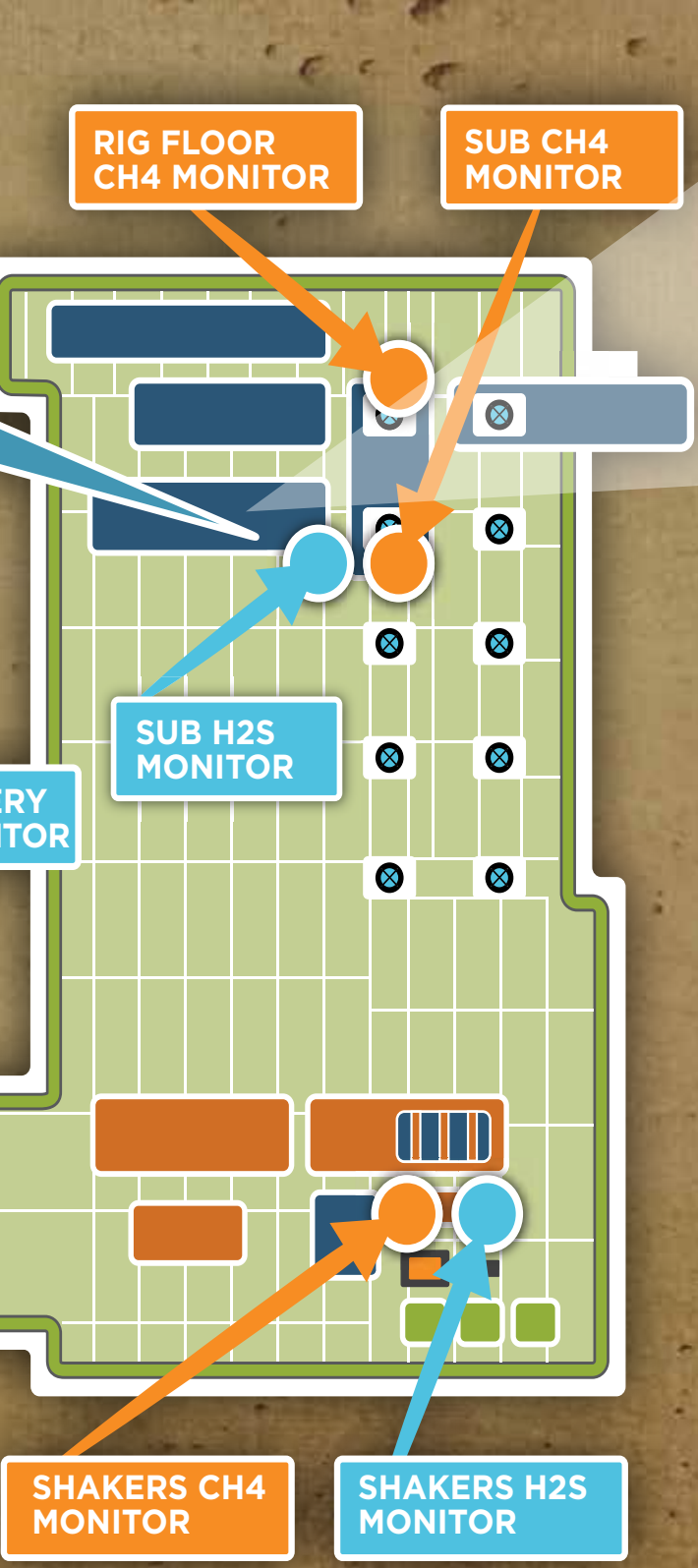
- Tank Levels
- Fluid Flows
- Site Security

DASHBOARD DISPLAY

Configurable / Custom Display

- Gas Levels
- Sensor Levels
- Battery Voltage
- Unit Operating Status
- Central Alarm - Audible & Visual Alarms

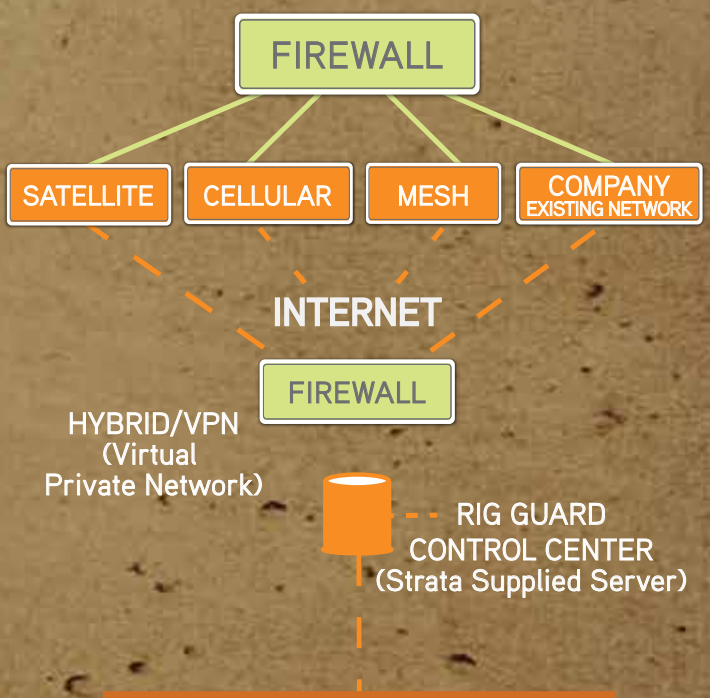




DOGHOUSE - CENTRAL CONTROL ROOM

Local Monitoring & Data Acquisition

All gas sensors send data / readings to central PLC display for complete drill rig monitoring.



REMOTE MONITORING & DATA ACQUISITION

View on Desktop/Laptop

Cellphone/Tablet

RIGGUARD GAS DETECTORS

RigGuard is powered by the Strata/Trolex Sentro 1 gas detector.

Sentro unit:

- Completely wireless & battery powered
- Intrinsically Safe
- IP65 rated & EMC protected
- 4 D-cell Energizer EN 95 batteries – 45 to 50 day life
- 2 I/O for additional monitoring options

E-Module sensor:

- Fast removal and exchange onsite
- Calibration onsite or remote
- Ability to interchange gas sensors with automatic reconfiguration

RIGGUARD DATA ACQUISITION

Local:

- Secure wireless network for two-way data transmission
- Wireless, battery-powered communications node mounted on rig (as needed)
- Remote control & command of individual sensors
 - Manipulating thresholds
 - Alarm activation/deactivation
- Supports open standard MODBUS and OPC formats

Remote:

- Secure transfer of data over the Internet – VPN/Hybrid VPN
- Satellite, cellular, mesh or company LAN
- Firewall protected
- Remote server
- Data display on any Internet-enabled computer, phone and/or tablet

SERVICE PLANS

Strata provides turn-key installation and service plans

- Performed by certified Strata personnel
- Installation, set-up and training
- Routine maintenance – including battery replacement
- Repairs and hardware replacement

Strata AIR™ RENTAL PROGRAM

Strata Worldwide offers an all-inclusive rental program that enables companies to rent the RigGuard system and capabilities at one low, fixed rate. Rental prices include:

- Hardware
- Software
- Installation & Set-up
- Maintenance
- Repairs
- Parts (including batteries)
- Labor
- Battery replacement
- Sensor calibration and replacement

Strata AIR™ Advantages:

- Month-to-month contract
- No upfront costs
- Low, fixed rates for life of the system
- No freight or installation costs
- Includes all future maintenance, parts and labor
- Significant reduction in operating costs
- 100% tax deductible

* Excludes physically damaged parts.