TX6377
Data Sheet

Sentry
Transportable Environmental Monitoring System

Environments: Mining • Refuge Chambers

Features

- Based on the proven Sentro 8, intelligent plug-in sensing eModules are available for on-board gas detection in a self contained unit
- Four gases are monitored simultaneously without the need for complex system design
- Intrinsically safe design with a protected power supply switch
- More than one week (192 hours) of operation from a sealed lead-acid battery pack
- All functions can be programmed externally using the heavy-duty waterproof keypad
- Programmable alarm setpoints configured to activate the integral audio alarm and flashing visual warning
- Integral carrying handle and stainless steel panels for protection
- Dual monitoring capability for monitoring gas levels inside and outside refuge chambers
- Security code to prevent unauthorised tampering with system settings and configuration

Benefits

- Single unit operation: Only one Sentry unit is required per refuge chamber
- Designed for the mining industry: Sentry has been designed specifically for exceptional quality refuge chamber environment monitoring, and to comply with and exceed MSHA regulations
- 6 month maintenance cycle: Battery change and sensor calibration is every 6 months
- 192 hours battery life from a single battery charge: Even at incident level temperature and humidity levels
- High performance: Sentry incorporates the latest sensor technology for high accuracy, long-life and exceptional robustness in challenging environments
- Low maintenance costs: Sentry is 83% cheaper to maintain in labour costs alone, compared to other options

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Functional Overview

The TX6377 Sentry is a self-contained transportable environmental monitoring system with the Sentro eModule at its heart. The eModule is an intelligent standardised gas sensing module that detects a range of toxic and flammable gases. Dynamic data is stored within the eModule, together with the condition of the gas sensing element and its service history. Sentro eModules are installed to monitor four different gases simultaneously.

The Sentry is powered by a rechargeable sealed lead acid battery pack which is easily and quickly removed for fast maintenance. The Sentry has a low maintenance requirement needing only a calibration, check and recharge of the battery every six months.

eModule - fitted inside the Sentry - pre-calibrated with an easy click in/click out replacement

Technical Information

Supply voltage:	Removable sealed lead-acid battery pack
Battery usage between charges:	192 hours - more than one week
Battery life in storage:	36 months if stored at ambient temperature between 0 to 30°C (32 to 86°F) If stored at higher temperatures, replace more frequently
Alarm output:	Built-in visual alarms can be selected to operate at two adjustable set-points. 81 dB at 300 mm (12 inches)
Operating temperature range:	-10 to 40°C (14 to 104°F)
Humidity:	95%RH, non-condensing
Storage temperature limits:	-20 to 60°C (-4 to 140°F)
Housing materials:	Reinforced polymer EMC protected and proof against surface electrostatic charge Integral carrying handle, stainless steel skid-panel baseplate, top and back
Protection classification:	Housing dust and waterproof to IP65
Weight:	15 kg (33 lb)
Mounting:	Free-standing and transportable
Maintenance:	Every 6 months, 18 months and 3 years

Sentro Sensing eModules

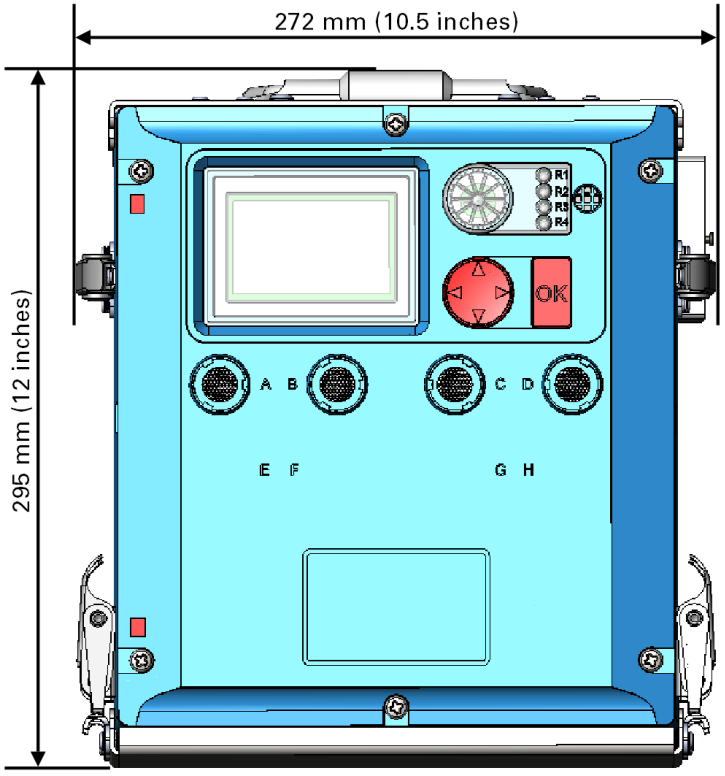
Sentro eModules are fitted to the Sentry. Each eModule has its own processor for intelligent data storage and signal conditioning circuits. The eModules will detect the most commonly occurring toxic and flammable gases, Carbon Dioxide, Carbon Monoxide, Methane and Oxygen. Sentro eModules are fitted to the Sentry in dedicated locations.

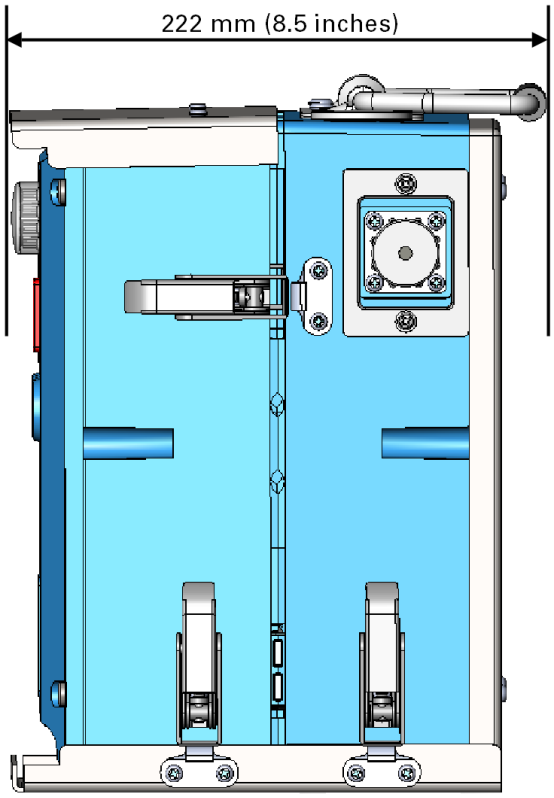
The modules are already calibrated so you can substitute them at any time with a replacement module. Each module contains its type identification and stores its full service history including gas identity, measuring range, data logging, set points, failure modes and alarm setting. All the acquired data stays with the module throughout its functional life.

There is no danger of inserting the wrong eModule in the wrong location. Each eModule comes pre-configured with insert codes and the Sentry automatically identifies the module that is inserted. Security coding is used to ensure that the same type of Sentro eModule is always used. The Sentry will recognise the module when it is inserted and will quickly configure itself for immediate operation.

eModule

Dimensions





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Order Reference

TX6377	Sentry front half with a set of four eModules and manifold, Sentry rear half battery pack with Quick Start Guide, base plate, gas sample kit (manual gas sample pump, gas sample hoses and flow indicator) and User Manual
TX6377.10	Sentry front half with a set of four eModules and manifold, and User Manual
TX6377.50	Sentry rear half battery pack with Quick Start Guide
TX6377.51	Sentry battery charger - option for region specific power lead
TX6377.52	Gas sample kit - manual gas sample pump, gas sample hoses, flow indicator and storage bag
TX6377.53	Sentry base plate
TX6377.54	Sentry manifold
TX6350.01.247	Trolex Sentry eModule
TX6350.01.250.50S	Trolex Sentry eModule
TX6350.01.250.1000S	Trolex Sentry eModule
TX6350.01.257S	Trolex Sentry eModule

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Certification

United States of America (MSHA)
IS Approval (Title 30 CFR Part 18) – Approval No. 18-A140004-0
Refuge Chamber Air Monitoring Component Approval (Title 30 CFR Section 7.507) – Approval No. LPA140001-0

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