# Ventis<sup>™</sup> Pro Series in the Mining Industry



# Overview

Underground mines are confined spaces that can accumulate significant concentrations of gases and particles—both those produced naturally by the mine itself and those produced by the equipment used in the mine. Mining applications require a multi-gas instrument.

# Sensors

While the most commonly requested sensors are  $CH_4$ ,  $O_2$ , CO,  $NO_2$ , and  $H_2S$ , requirements for mining may vary based on the application. Common configurations include:

- Coal mining (MSHA requires O<sub>2</sub>, CO, and CH<sub>4</sub>): O<sub>2</sub>, CO, and CH<sub>4</sub>. NO<sub>2</sub> may be added based on the specific application.
- Metal/non-metal mining: LEL or CH<sub>4</sub>, O<sub>2</sub>, and CO are commonly required with NH<sub>3</sub>, HCN, H<sub>2</sub>S, NO<sub>2</sub>, and SO<sub>2</sub> added based on the hazards present in the specific application.
- If diesel-powered equipment is used, an NO<sub>2</sub> sensor is needed.

# **Key Features**

- Configurable for multiple uses: Flexible sensor configurations allow mining companies to use Ventis Pro Series instruments for various applications including seal checks, personal protection, and fire bossing. One instrument that fills many needs reduces training costs and simplifies the user experience.
- Wearable: It's lightweight, compact, and features an easy-to-use suspender clip. Ventis Pro Series instruments are comfortable to wear and won't interfere with day-to-day tasks.
- One dual-range methane sensor can replace two sensors: A Ventis Pro Series instrument can meet MSHA requirements for methane detection from 0–5% for personal protection and 5–100% for seal checks using a single dual-range methane sensor. The resolution is 0.01% for the 0–5% range and 0.1% for the 5–100% range.
- Rugged: Ventis Pro Series instruments are backed by the Guaranteed for Life<sup>™</sup> warranty program and exceed the mining industry's needs for a rugged instrument.
  - Resist damage from water, dirt, and dust: With an IP68 rating, Ventis Pro Series instruments have the highest level of protection from damage caused by dust/dirt and can withstand being submerged in water at a depth of 1.5 meters (4.9 feet) for one hour.

- Withstand extreme temperatures: Ventis Pro Series instruments operate in temperatures ranging from -40 °C to 50 °C (-40 °F to 122 °F).
- Go ahead, drop it: Ventis Pro Series instruments are designed to pass industry drop tests and exceed the requirements outlined by 30 CFR Section 22.7(d)(3) and EN60079-0.
- Built to last: Rubber overmold edges are designed to resist peeling and tearing.
- Work safer: Man-down and panic alarms protect workers from hazards beyond gas. For example, if a Ventis Pro Series user is unable to move or drops an instrument without knowing it, the mandown alarm will sound. A dedicated panic button makes it easy for an instrument operator to warn others of hazards.
- Manage fleets on the go: iAssign™ Technology helps streamline the site and user assignment process by making assignments something that can be done quickly, anywhere, and at any time. Streamlined assignments make user and site data easy to collect and analyze.

# **Additional Features**

**Simple to care for** – Ventis Pro Series instruments are easy to service. The sensors can be replaced with a few simple steps. The rechargeable lithium-ion battery takes just moments to swap out. External dust filters can be peeled off when dirty and quickly replaced. The Ventis Pro Series is also compatible with the DSX Docking Stations and V-Cal Calibration Stations.

**Customize it to meet operator needs** – Customizable settings allow Ventis Pro Series instruments to be configured for use by experts in gas detection or simplified for use by operators who just need to know when there is a problem. For example, alarm action messages can be used to provide clear instruction when the instrument alarms.

**Ventis Slide-on Pump\*** – Ventis Pro Series instruments are compatible with the Ventis Slide-on Pump. Operators who primarily wear a gas monitor for personal protection, but occasionally require a pump for confined spaces, can convert a non-pumped instrument to a pumped and vice versa with just a few steps.

NOTE: \*Available in late 2016. | REV 0316



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