

Ventis™ Pro Series Sensor Flexibility for a Variety of Applications



Portable gas detection equipment is required across a range of industries and applications. Each target gas requires different sensors, and sometimes different sensing technologies, based on the application. Ventis™ Pro Series instruments are designed to be configured with flexible sensing options in order to cover a variety of four- or five-gas monitoring applications.

Sensing Combustible Gases

Most applications for multi-gas instruments require detection of combustible gases. Ventis Pro Series instruments have a number of combustible gas sensing options. A standard catalytic bead sensor can be used to detect combustible gases on the scale of 0–100% of the lower explosive limit (LEL). The same catalytic bead sensor can be configured to detect methane on the scale of 0–5% of volume. For combustible gas monitoring applications in environments that may have oxygen concentrations below 10% of volume or may have a high level of contaminants that will poison a traditional catalytic bead sensor, the Ventis Pro5 may be configured with an infrared combustible gas sensor. An LEL (Propane) infrared sensor is offered to detect a range of combustible gases on the scale of 0–100% LEL propane. Instruments used for detecting methane or natural gas can have an infrared sensor installed that will autorange readings between a 0–100% LEL methane scale and a 0–100% of volume methane scale. Instruments configured with infrared sensors will provide longer battery run times; however, caution should be taken in applications where hydrogen or acetylene may be encountered as these gases will not be detected by an infrared sensor.

An added benefit of using infrared sensors for combustible gas detection described above is the option to detect carbon dioxide (CO₂) from 0–5% of volume using the same sensor. Carbon dioxide detection may be required in many monitoring applications within the mining and food and beverage industries. Like combustible gas detection, most multi-gas monitoring

applications require the ability to detect oxygen. An oxygen sensor is available in the Ventis Pro Series instruments to detect oxygen from 0–30% of volume.

Sensing Toxic Gases

Ventis Pro Series instruments can be configured with electrochemical gas sensors to detect up to four different toxic gases simultaneously* along with oxygen. Sensors are available to detect carbon monoxide (CO), hydrogen sulfide (H₂S), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), hydrogen cyanide (HCN), phosphine (PH₃), or ammonia (NH₃). The measuring ranges of each of these sensors are among the widest available in portable gas monitoring instruments. A carbon monoxide sensor with a low hydrogen cross interference level is also available for use in applications where concentrations of hydrogen are present that may typically create false carbon monoxide alarms. The Ventis Pro4 and Ventis Pro5 are the first multi-gas instruments that can also be configured with DualSense® Technology when detecting oxygen, carbon monoxide, and hydrogen sulfide. Gas monitor data shows that a user with an instrument using the redundant sensors provided with DualSense Technology is eighty-five times safer than one using a standard single sensor configuration.

Whether your application requires the simplicity of a single sensor monitor or the complexity of a full five-gas instrument, the variety of sensors and configuration flexibility of Ventis Pro Series instruments can meet your gas detection needs.

To learn more about how the sensors available in the Ventis Pro Series can work for you, visit our website at www.indsci.com/ventispro or contact your local Industrial Scientific representative. Contact information can be found at www.indsci.com/offices.

NOTE: *Some sensor configuration limitations do exist.

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www.indsci.com

AMERICAS

Phone: +1-412-788-4353 | Fax: +1-412-788-8353
1-800-DETECTS (338-3287) North America
info@indsci.com

ASIA PACIFIC

Phone: +65-6561-7377
Fax: +65-6561-7787
info@ap.indsci.com

EMEA

Phone: +33 (0)1 57 32 92 61
Fax: +33 (0)1 57 32 92 67
info@eu.indsci.com