



News Release

Released: April 2005

Introducing a Revolution in Open Path Gas Detection

Senscient, Ltd. introduces “**Enhanced Laser Diode Spectroscopy™**”, a revolutionary technology for line-of-sight gas detection systems. Using a separate transmitter / receiver configuration, these systems detect and measure gas concentrations at specific target gas absorption wavelengths over distances of up to 200 meters. The detector measures absorbance changes along the line-of-sight path when a combustible or toxic gas passes through the beam. **Enhanced Laser Diode Spectroscopy (ELDS™)** utilizes highly reliable, solid-state laser diode sources similar to those used in demanding telecommunications applications. Innovative signal processing methods significantly increase sensitivity down to fractions of a % LEL meter of combustible gases and low ppm meter levels of toxic gases. ELDS addresses problems experienced by traditional laser diode systems including laser Relative Intensity Noise (RIN), absorption by atmospheric gases, and coherence / fringe effects. ELDS uses a combination of techniques that significantly enhance the ability of an OPGD to detect small fractional absorbencies with an extremely low false alarm rate.

ELDS-based OPGD systems bring significant advantages to the marketplace by providing reliable, sensitive detection of both flammable and toxic gases at low ppm concentrations. Toxic gases of primary interest include hydrogen sulfide, hydrogen fluoride, and ammonia. These systems also offer three orders of magnitude in increased sensitivity for hydrocarbons, greatly increasing the probability of detecting a flammable gas leak before it reaches catastrophic proportions. Current NDIR methodology fails to provide warnings early enough, or reliably enough to facilitate any significant remedial

action. ELDS-based OPGD units can be produced for combinations of toxic and / or flammable gas hazards, significantly reducing the cost for a comprehensive gas detection system. The unique **Simu-Gas**™ feature provides the long sought-after ability to accomplish remote, on command, electronic functional testing of open path gas detectors either locally or from the control room.

ELDS techniques allow customers to finally meet stringent regulatory and safety integrity requirements with a false-alarm free system for low level combustible and toxic gas detection. **Senscient, Ltd.** – ***“Fulfilling the promise of Open Path Gas Detection”***

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