

Draeger Flame 5000 - *Visual Flame Detector and CCTV in One*

The **Draeger Flame 5000** is a visual flame detector and a closed circuit television camera (CCTV) in one. It is engineered to combine these two technologies into the best flame detector that money can buy. It's the safest and most advanced flame detection system available, and has proven reliable and robust, even in the harshest environment. Superior flame detection technology is able to mask "friendly fires" without having to desensitize its fire detection capabilities. The Flame 5000 is one of the only units on the market today that has this ability.

The Flame 5000 is a color imaging based flame detector. Using advanced digital signal processing and software algorithms it can process the live video image and interpret the characteristics of a flame. Subsequently the detector is virtually immune to any potential false alarm sources including hot processes, flare reflections and hot CO₂ emissions.

The detector is capable of detecting a 0.1m² gasoline fire at 44 metres, and an extended operating temperature of -60° C (-76° F) to +85° C (185° F) makes the Draeger Flame 5000 suitable for a wide range of applications. Advanced optical verification is designed to check the detector window for contamination and to ensure that the detectors field of view is not restricted by an object placed directly in front of the window.



Applications: Off shore drilling platforms, FPSO, Aircraft hangers, Refineries and chemical processing, Railcar loading areas, Fuel transport terminals, Pipeline Pump stations, Traffic tunnels

Precise Instruments - *Multigas detection*

At ETA Associates, we recently added yet another product line - multigas detectors available from **Precise Instruments**. These instruments are capable of detection down to trace levels and use a unique technology - Tunable Filter Spectrometer (TFS). This enables multi-component chemical analysis of gases



and liquids with high sensitivity and selectivity. Designed industrial

uses, these sensors are robust, insensitive to vibration and cost-effective, all while exhibiting a simple design.

Features & benefits of TFS include:

- Continuous Wavelength Scanning
 - Simultaneous multi chemical analysis, high selectivity => low cross-interferences
- High Optical Throughput or Etendue
 - High sensitivity, low detection limits, fast measurement
- Highly Versatile Sensor Platform
 - Rapid custom application development
- Design Simplicity
 - Robust compact sensor, low cost
- Advanced Signal Processing
 - Built-in cross interference and drift compensations for high stability monitoring

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Permapure® and Baldwin™ - Gas Conditioning Systems

Perma Pure LLC is a leading manufacturer of gas conditioning products including dryers, filters, coalescers, specialty scrubbers and complete sampling systems. These products are marketed worldwide for use in environmental, medical and scientific applications.

Perma Pure's core technology is Nafion®, a Dupont co-polymer that is highly selective in the removal of water in vapor phase. Water moves through the Nafion® membrane wall in a tube in shell design and preevaporates into the surrounding air or dry purge gas. This process is continuous and powerless, driven by the water vapor gradient between the inside and outside of the tubing. Nafion is highly acidic in nature and therefore does not react with common acid gases being measured such as NOX, SO2, CO2 and O2. Because water is removed in vapor phase, Nafion enables accurate measurement of low levels of water soluble analytes such as HCl, Hf, SO2 and NO2.

Perma Pure acquired Baldwin Environmental in 2006 and has maintained and extended their product line for stack gas emission monitoring equipment such as thermoelectric coolers, heated filter probes, dilution probes, complete sample conditioning systems and flow control drawers. Baldwin chillers are well known for their quality and reliability in systems requiring 24/7/365 operation. Perma Pure now offers multiple technologies for sample gas conditioning, matching the right solution to each customer application.



Industrial Applications:

Gas sample conditioning for process monitoring or environmental compliance monitoring where hot, wet and dirty stack gases must be conditioned into the cool, dry and clean samples required by analyzers. Applications include power generation, chemical plants, pulp and paper mills, cement plants, incinerators, sewage treatment and landfills.

Scientific Applications:

Removal of water from sample gases for laboratory analysis or hydration of gases for fuel cells.

Service, Calibration, and Repair - Factory trained technicians

Did you know that ETA Associates, in conjunction with the staff of Safety Inc, their parent company has service staff and technicians available to service a wide range of instruments?

This allows us to offer our customers fast turnaround and lower cost. ETA has trained technicians on staff for calibration, repairs, and to answer questions from our customers. Our phone lines are staffed Monday through Friday, 8 am to 5 pm Eastern Time.

In order to help you keep your instruments in top operating

condition, we will also send reminder notices for annual service on selected instruments.

If you have a product in need of repair or upgrading, prior to shipping your instrument, please let us know by:

- Call us at (978) 532-1330
- Email eta@ETAassociates.com, or
- Submit an online request at www.ETAassociates.com, select "Calibration and Repair", then "Instrument Repair Form", fill out on-line, click submit on the bottom.

Upon receipt, we will contact you with a quote and preliminary diagnosis for your approval, before beginning any work.



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