



A Newsletter from the CIC Service Department

## Use the PrevEx to Meet the Latest NFPA 86 Codes!

It is important to select a solvent vapor monitoring system that meets the requirements of NFPA 86-2010.

The following explains the latest guidelines and how the PrevEx meets them:

### ▪ Fastest Response Time

The caution note found in NFPA 86 warns operators of the need for fast response, stating that, "It cannot be emphasized too strongly that the solvent vapor concentration measurement system is to have a very fast response time... A response time in as little as 5 seconds might be required."

When it comes to giving you early warning no other design even comes close to the PrevEx's less than 1-second cell response time. This impressive response, eight times faster than the industry's average sensor, is due to the PrevEx's direct duct-mount design. This radically reduces sample delivery time, while ultimately accelerating response time.

### ▪ Heated Sample Delivery System

Accurate process sampling depends on drawing a sample from the oven exhaust duct, and delivering it to the solvent vapor analyzer, as quickly as possible without losing anything.

NFPA 86 states, "The sensor and sample delivery system shall be maintained at a temperature that prevents condensation..."

The PrevEx has a corrosion resistant, heated sample train through which the sample is delivered. The heat eliminates that condensation and withstands corrosive elements, leaving you with an accurate representation of your process, as stated in NFPA 86 "...the gas sample system must deliver the oven atmosphere sample to the analyzer".

The PrevEx Flammability Analyzer collects the sample using an aspirator, driven by compressed air. There is no pump or blower; instead microprocessor control guarantees

constant sample flow and pressure through the train, assuring you of the highest level of accuracy. Even the sensor itself is free of poisoning from various organo-metallics, halogenated hydrocarbons, silicones, or plasticizers.

### ▪ Accurate Calibration & Response

A section of NFPA 86 requires calibration to be valid for the application and solvents used. "If a variety of solvents is used, the solvent to which the controller is least sensitive shall be the primary calibration reference".

Only the PrevEx Flammability Analyzer gives consistent and reliable readings when faced with multiple or changing solvent concentrations.

This is due to the powerful universal calibration feature, made possible through the PrevEx's sensing flame technology. Its tighter calibration span acceptability allows more flexibility while staying fail-safe!

### ▪ Failsafe Malfunction Logic

The best analyzer design should be failsafe: it will provide malfunction alarm for any and all faults. For greatest safety, the malfunction alarms should shut down the process.

NFPA 86 states, "...the measurement device shall consist of a safety logic system that is activated by the analyzer".

The PrevEx Flammability Analyzer incorporates several fail-safe features designed to ensure perfect safety under all conditions. In fact, the inherent design of the sensing flame technology is that the flame must always be on and the system working properly or an alarm is given. This leaves no problem undetected. Whether it is a loss of fuel, air, sample flow or power, a malfunction relay is automatically tripped and the operator is notified immediately of a status change. The alarm relays include warning, danger, fault, horn, service needed, and system under

calibration.

### ▪ Maintenance

Your system should be designed to provide the least amount of downtime, including routine calibration and maintenance of the sampling system and sensor.

NFPA 86 states, "...the system shall be secured against unauthorized adjustment".

The PrevEx Flammability Analyzer's all-inclusive design is easily operated and maintained. The front panel includes a complete set of status indicators and an eight-character alphanumeric LCD display. This front panel can be programmed with security lock-outs as needed so that only authorized personnel can access complete system functions. Using just two push buttons, you can access all calibration, programming and diagnostic routines. And for complete access, contacts are also provided for two external control inputs. A window in the outer cover lets you see the entire front panel. This is where calibrations can be initiated. Since the PrevEx comes equipped with solenoid valves for both zero and span test gas, an integral microprocessor can automatically make all calibrations for you. Additionally, when using redundant analyzers for safety & control, calibration can be locked so that only one analyzer can go into calibration at any given time. Ensuring that while in redundant system mode, there is always at least one analyzer continuously monitoring at all times.

Call our Control Instruments Service Department and schedule a Field Service visit to make sure that your existing systems are in full accordance to the latest NFPA 86 Guidelines!



Front Panel





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## Service Contracts & Spare Parts

### Preventative Maintenance Service Contracts

Control Instruments service technicians will come to service & evaluate your current equipment and installations to make sure they meet the standard codes. It may make sense for you to have us perform even routine equipment maintenance. Many of our customers have found that this is the most cost-effective method, because it gets the job done while allowing plant personnel to focus on other tasks.

This service includes:

1. Evaluate current equipment and installation to make sure it meets latest code.
2. Calibrate, test functionality of equipment.
3. Check set points (warning levels, danger levels, sensor current, etc.)
4. Test "tie-in" to process controls when possible (when was the last time you performed a live test?)
5. Perform routine maintenance. Replace consumables.

Make sure you're safe! Call us today at 973.575.9114, to schedule your PM Visit!

### "Off-The-Shelf" Program

In the event your monitoring system needs emergency repair, our field service people are committed to providing you with the best customer service available. Control Instruments is now offering a program that will allow you to get 24-hour turnaround on the replacement of old FFA/FTAs with the PrevEx Analyzer. This will minimize downtime of non-working analyzers & since the PrevEx uses existing FFA/FTA utilities it can easily tie in to your existing installation.

So, if your process is down, no need to worry, you can get up and running in a quicker time than it may take for a technician to get through security at the airport. Just ask about our "off-the-shelf" analyzer!

### Order Online

We are happy to announce that [www.controlinstruments.com](http://www.controlinstruments.com) is open for business!!

Log on to buy your spare parts and experience:

- No Hassle Ordering
- 24-hour Service
- Fast Delivery
- Secure Checkout

Available for PrevEx, FFA, FTA, SNR650, and SmartMaxII Analyzers.

### Spare Parts Packages

The Service department is now offering a special selection of spare parts, containing everything you could possibly need for any of your Control Instruments Analyzers! It comes packaged together in a convenient customized case, which allows for easy re-ordering of replacement parts. Call Maria Nichols at 973.575.9114 ext. 104 for more information.



### Menta's Musings

Service Tips from  
Steve Menta

One of the most common issues discovered while servicing the FFA & FTA sensors are leaks in the sampling system. Unlike the PrevEx which detects leaks as a calibration failure, the FFA and FTA do not. If a leak is present the sensor's response time can increase and the calibration will be wrong. If the leak occurs when a calibration is performed, it can dilute the span gas and lead to artificially high readings. Therefore, we recommend performing a leak check twice a year.

#### FFA Leak Check Procedure:

1. Remove the sample line at the bulkhead fitting coming into to the unit.
2. Plug it.
3. The flow on the SCFH flow meter should go down to zero. The magnehelic pressure gauge should go to the maximum reading.

#### If you don't get these results, the following might have occurred:

1. Low flow switch leaking
2. Magnehelic gauge leaking
3. O-rings on flame cell assembly leaking
4. Aspirator dirty
5. Loose fittings
6. SCFH flowmeter leaking
7. Orifice dirty inside low flow switch fitting

#### FTA with I/P Regulator Leak Check Procedure:

1. Remove the sample line
2. Plug it.
3. The I/P regulator should go to its maximum reading of 15 PSI.

#### FTA with 0-5PSI Magnehelic Gauge Leak Check Procedure:

1. Remove the sample line
2. Plug it.
3. The 0-5PSI magnehelic gauge should go to zero.

#### If you don't get these results, the following might have occurred:

1. O-rings leaking
2. I/P regulator not working properly
3. Magnehelic gauge leaking
4. Loose fittings
5. Air solenoid valve leaking
6. Control circuit board failure

