



Pulse and Injection Odorization Systems

" Safe enough to be your next door neighbor"

ODORIZATION FOR A CLEANER ENVIRONMENT



"Safe enough to be your next door neighbor"



**Pulse and Injection
Odorization Systems**

OdorEyes Technologies™ offers odorization services and systems to fit your needs. Bringing with it over 60 years experience, OdorEyes Technologies offers the quality, performance and customer service that you, the customer, expect and deserve.

ODOR
Enzymatic Liquid



Model 'A' Injection System

EcoSystem A/T

**OdorEyes Gas Odorant
Monitor-Transmitter**

**OdorEyes
Bellows Injection**

Accu/Line Injection Systems

EcoSystem B/U

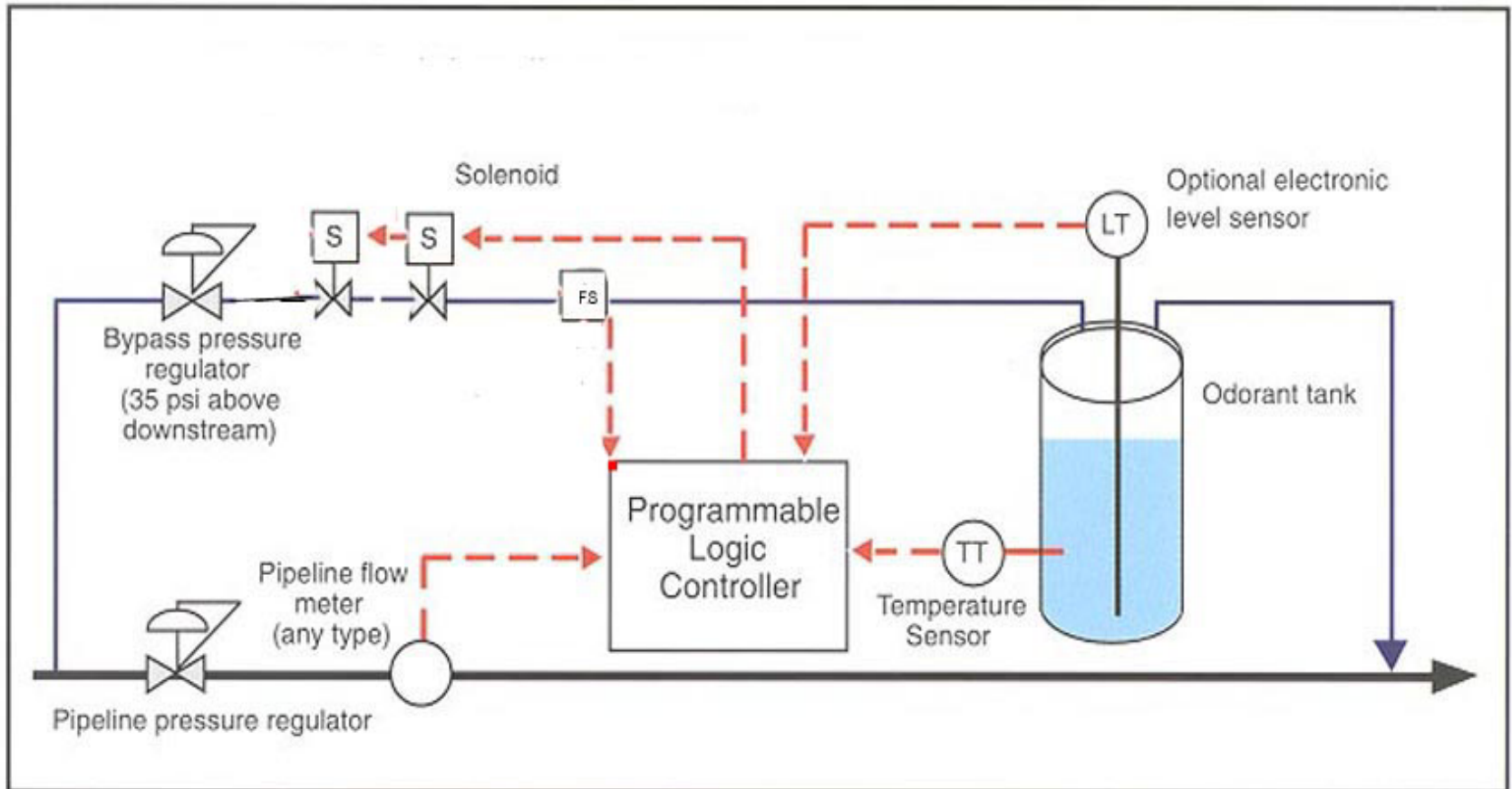
Environmentally Clean Odorizer Systems from OdorEyes technologies are designed to provide safe, reliable and clean odorization of natural gas in your pipeline. EcoSystems have no pump to fail, no seals to leak, and no moving parts – giving you a more maintenance free system and giving us all a cleaner environment

EcoSystem Units can be operated over a wide range to fit any size system. The EcoSystem B/U (Base Unit) is intended for low flow rates and local monitoring, while the EcoSystem A/T (Audit Trail) provides odorization for larger flow rates and features remote monitoring, touch screen technology and complete alarm and audit trails.



The Electronic Pulse ByPass Concept

The Pulse ByPass Odorizer takes a very small amount of gas from upstream of the main line regulator and passes it through the odorant tank in intervals, or pulses, proportional to the flow of gas in the main line.

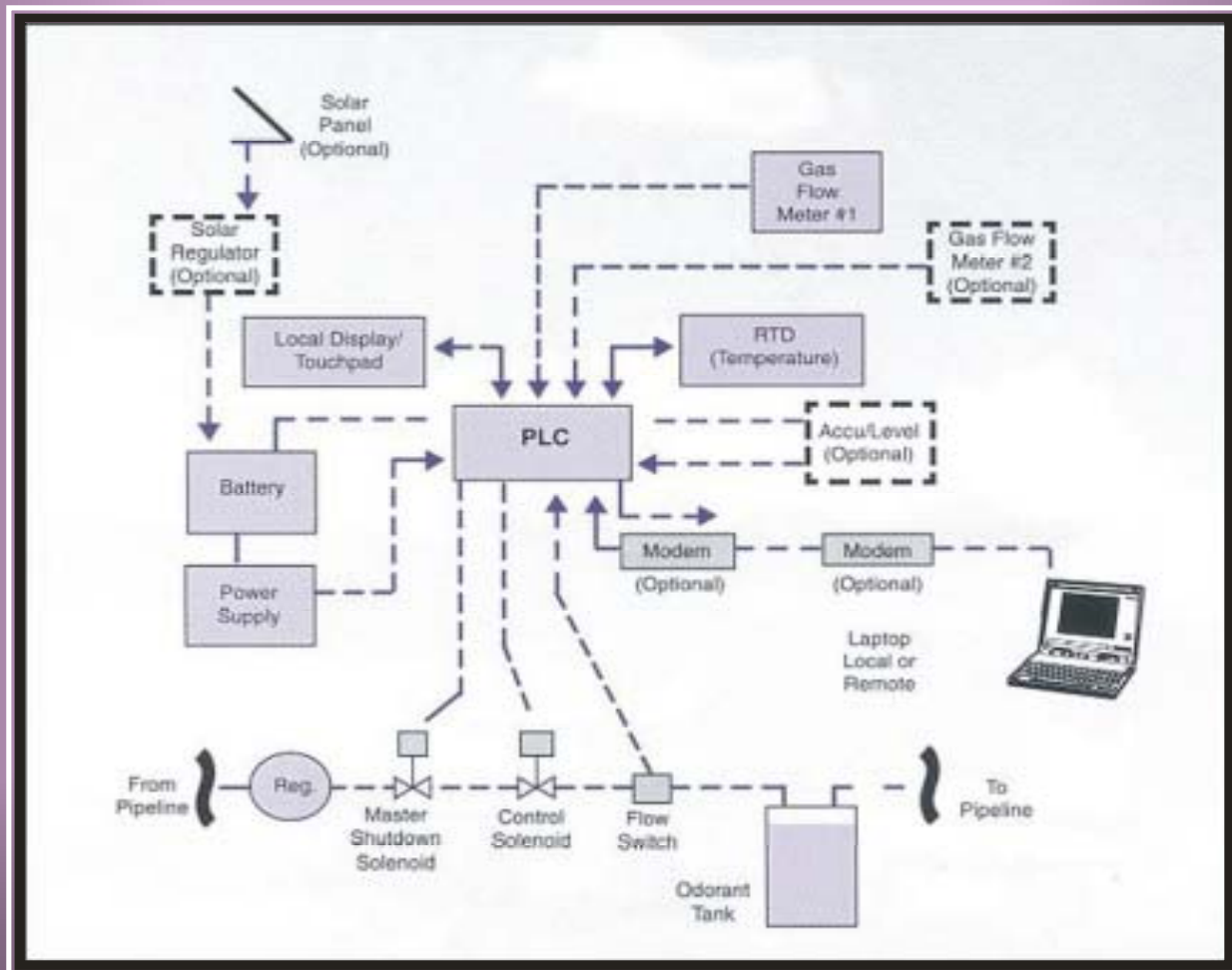


EcoSystem A/T

Combining the benefits of Pulse Bypass Odorizers with the latest in Programmable Logic Control technology.

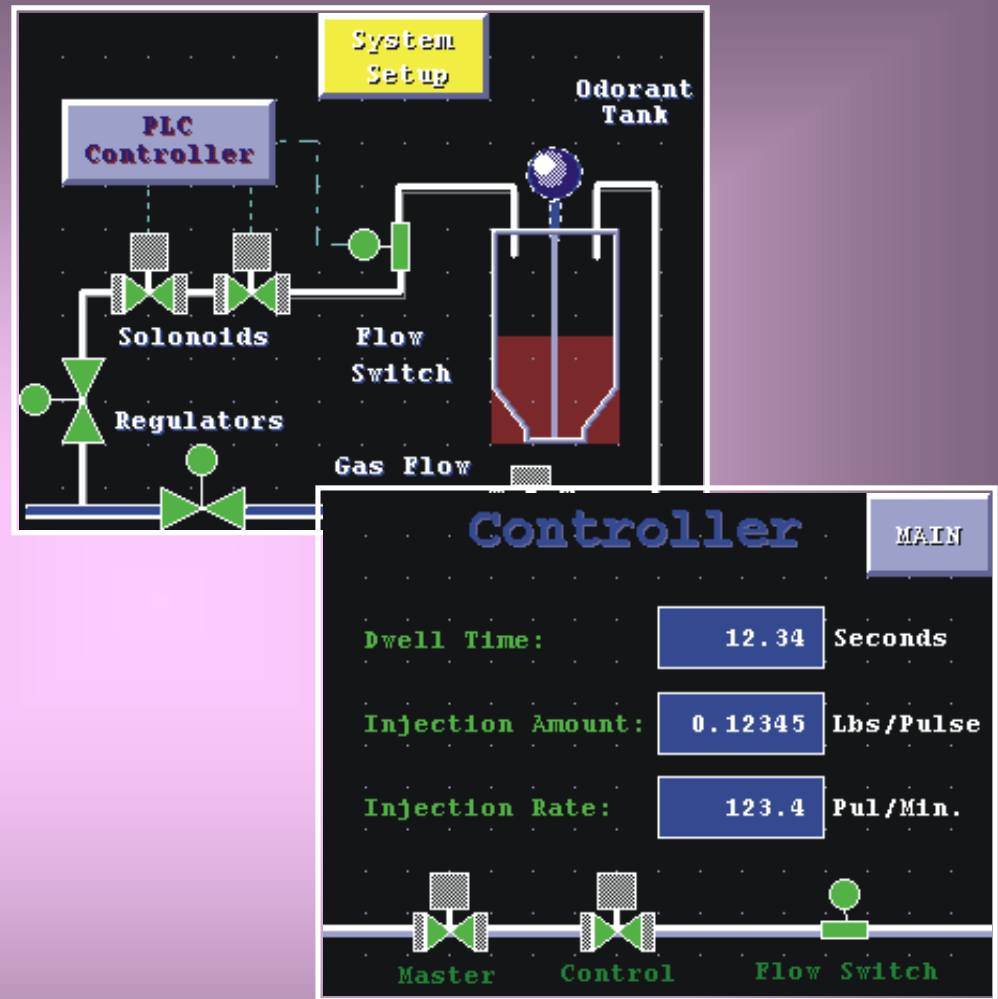
- ❑ Alarm Trail, Data History Log and remote Communications.
- ❑ Typical repairs can be completed without exposing the product to atmosphere.
- ❑ Stainless Steel/Teflon Check Valves
- ❑ Environmental Protection from unwanted spills and leaks.
- ❑ Simplified Design keeps replacement parts to a minimum and repairs quick and easy.
- ❑ RCS Gateway Controller from IIT brings over 12 years of experience and service to the Oil and Natural Gas Industries.

This typical installation diagram illustrates the relationships of the major elements of the EcoSystem A/T and shows the optional components that are available, including remote maintenance access using a laptop PC.





Easy to read visuals provide you with the ability to program, troubleshoot or monitor all aspects of the system. EcoSystem A/T Pulse Gas Odorizers feature user friendly touch screen technology that brings the data to you in real time graphics. On-Site programming is made easier by a simple touch of the screen. Long, detailed instructions and programming formulas are a thing of the past. With Odoreyes, it's just point...touch...and go!!



The RGC Controller resides in a NEMA 4X enclosure. The controller automatically monitors gas flow via a 4-20 analog signal or pulse signal from a corrector or flow computer and automatically controls solenoid valves to odorize the gas to the proper level. The RGC controller saves information regarding the odorization process in a "User Report" and captures this report in history logs. The retained data can be accessed locally, or remotely via modem using the RGC software provided with the controller or by instructing the RGC to dump the information to a floppy disk.

MODBUS, Modem and
Laptop
Communications
Available
Simultaneously !!



EcoSystem B/U

The EcoSystem B/U is intended for natural gas pipeline or similar installations with flow rates less than one million standard cubic feet per hour. This model offers only local monitoring and control functions for operation.

- ❑ Can provide continual odorization even in the event of loss of meter signal or power failure.
- ❑ Can operate accurately down to zero flow and will never vapor lock. Ideal for stations that may periodically cease operation or go to extremely low flow.
- ❑ Can be equipped with temperature sensor in the odorant tank. ByPass flow is adjusted to compensate for changes in odorant vapor concentration due to temperature changes. This allows the tank to be either buried or above ground and remain accurate.
- ❑ PLC is a 24 VDC logic controller specifically programmed for odorization.



Simplify Your Odorization

- ❑ No pump or other moving parts
- ❑ No vapor locking or leaky seals
- ❑ Very wide flow range
- ❑ Simple, low maintenance
- ❑ Accurate flow tracking
- ❑ Retrofit to existing bypass tank
- ❑ Remote access capability
- ❑ Greatly reduces odorant usage

Combining the benefits of Pulse ByPass Odorizers with the latest in Programmable Logic Control Technology

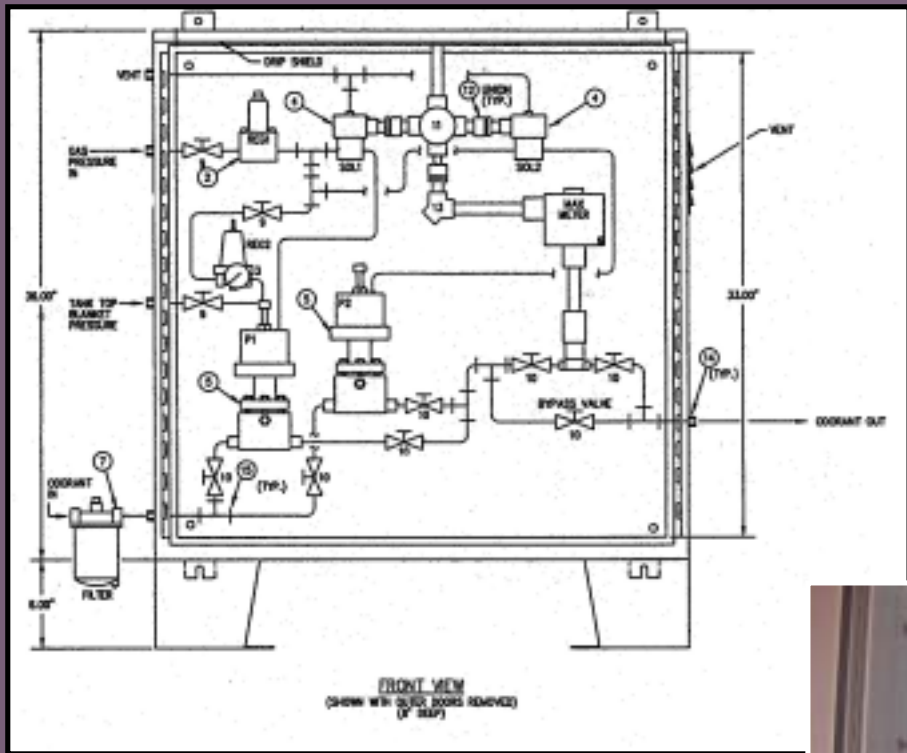
Accu/Line Injection Systems



More than 25 years of solid performance characterize the injection odorizers manufactured by OdorEyes Technologies. We introduced the first computer controlled injection odorizers in 1978 and have been consistently raising the bar ever since.

The 21st century design provides a higher level of accuracy, greater flexibility and state of the art data acquisition software to help you manage the system at the highest level of accuracy available. The unit can be programmed to respond to changing conditions and performance data feedback in a variety of ways, while maintaining continuous accurate service. The 12/24 vDC PLC unit has battery backup for uninterrupted service or can be equipped with optional solar power.





Odorant flows from the tank, through a filter, gas flow meter and a liquid odorant flow meter to the gas pipeline. Signals from the gas flow meter and the odorant flow meter are used to control the pumps (via solenoid valves) providing the odorant to the pipeline.

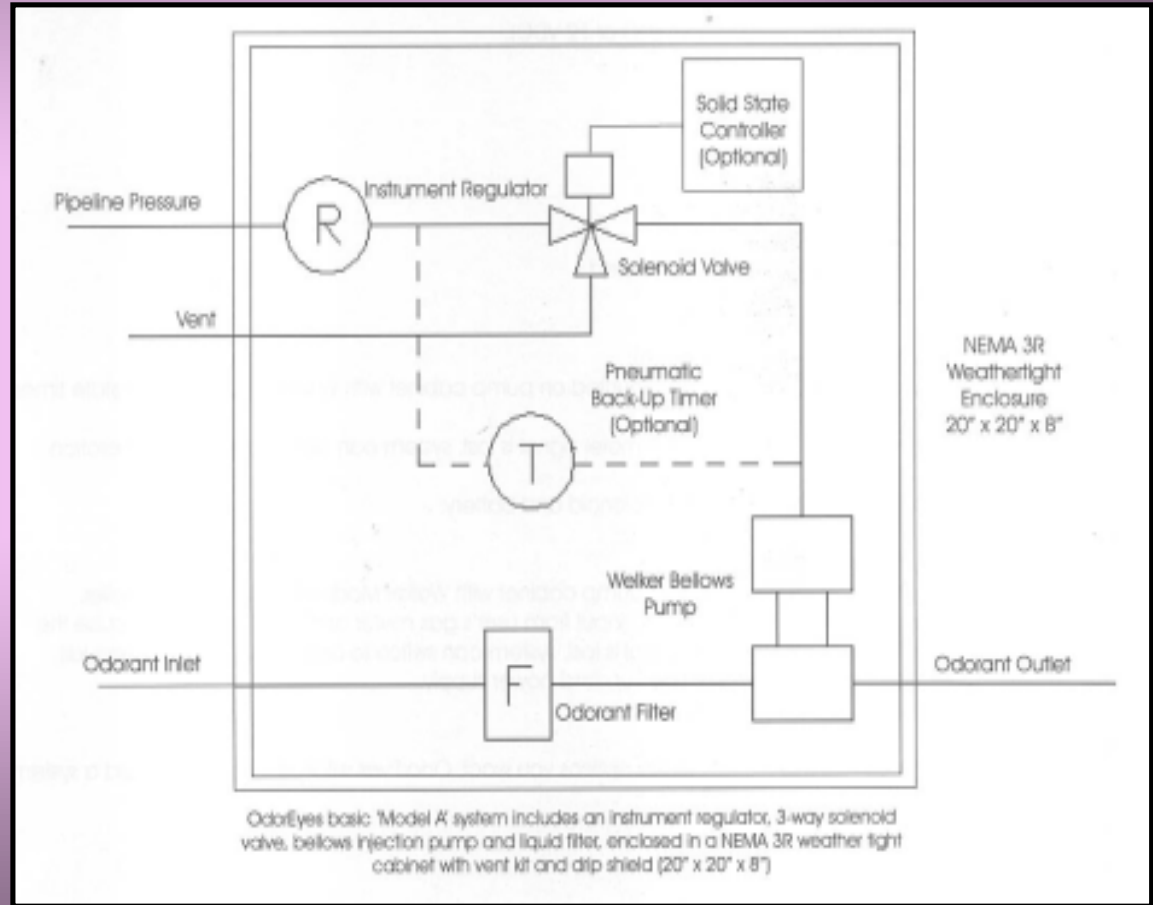


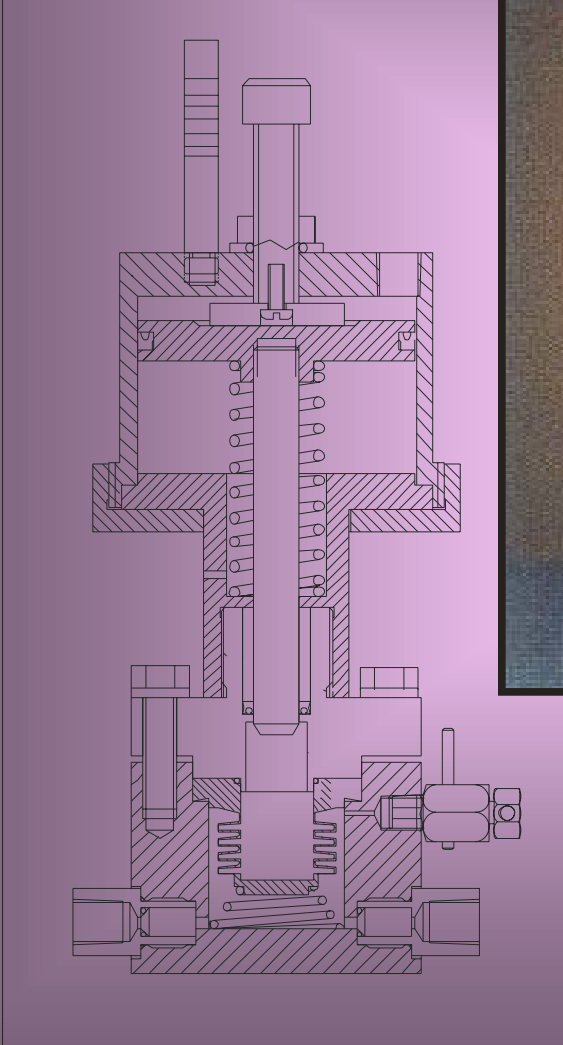
The odorant meter alerts the PLC of pump failures, vapor lock or other problems. The PLC will respond according to it's programming. Response can include operating the pump several times to clear the problem, switching to an optional stand-by pump, generating an alarm or shutting down the system.

Accu/Line

Model 'A' Injection System

Designed for the company that wants to design their own personal system. Now you can order the odorant system that you want, one that fits your needs and specifications. Start with the basic 'Model A', design the system you need, add the options you want and order. Simple ... Safe ... and Easy!!





Accu/Line Injection Odorizers utilize the OdorEyes BIP Series of Injection Pumps for the ultimate in proven performance and environmental protection from unwanted spills and leaks.

Tanks



Tank, skid and containment pan are sized for your application. All tanks are ASME certified and code stamped. An electronic level transmitter allows the odorant level to be an integral part of the odorizer. The system has the ability to calculate and record the odorant usage straight from the tank. Tanks are available in both vertical and horizontal configuration.

ODOR
Enzymatic Liquid



OdorX Plus is specially designed for situations where speed and odor removal are time sensitive.

OdorX liquid quickly and easily eliminates odors caused by Mercaptans, Sulfides and Thiophene, removing them completely by neutralizing and digesting the source of the odor. OdorX is not a masking agent!! OdorX contains bacterial strains which actually digest difficult and non-biodegradable compounds.

DOUBLE the Odor Fighting Power of Original OdorX!!

For the Control of Natural Gas Odorants
Eliminate the Cause of Odors !!

TWICE AS STRONG

- * Safe
- * Non Toxic
- * Non Hazardous
- * Water Soluble
- * Pleasant Odor

TWICE AS FAST

Excellent for: cleaning used containers, cleaning up spills and deodorizing pits and tods.

** Do not store above 145°F or below 40°F **

OdorEyes Gas Odorant Monitor-Transmitter

The OdorEyes Monitor-Transmitter automatically measures the concentration of any commonly used mercaptan odorant in natural gas or vaporized LPG. The measurement signal can be recorded to verify the accuracy with which mercaptan has been added to odorless fuel by an odorizer system.

- ❑ On Line verification of odorization level
- ❑ 4-20 mA output and relay alarms
- ❑ Smart Circuitry, MODBUS® communication
- ❑ Programmable



Fixed OdorEyes Monitor System



Simple, compact and efficient design.

The latest technology is reviewed and discussed in training seminars and hands-on classes. Ideas, programs and solutions are continuously exchanged to keep everyone up to date and informed on the most recent innovations and methods.





Changing the way that the World Odorizes

Call 1-877-ODORIZE or visit our website at
www.ODOREYES.com