

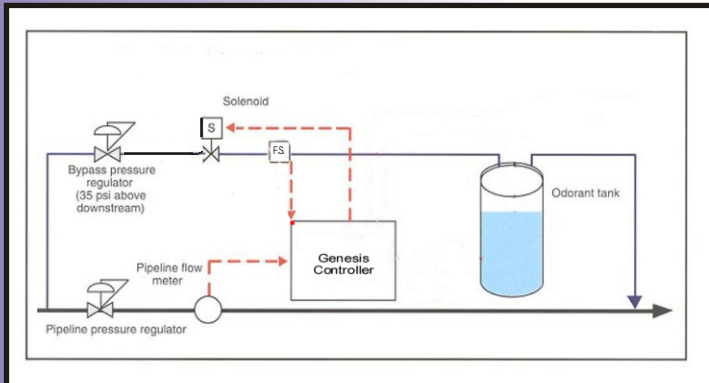
# EcoSystem Genesis Unit

Environmentally Clean Odorizer Systems from OdorEyes Technologies are designed to provide safe, reliable and clean odorization of natural gas in your pipeline. Looking for a system that meets the needs of local low flow rate locations without all the overkill and expensive options? From very basic needs to systems requiring optional alarms, shut-offs and flow measurements, the Genesis Unit can be designed to fit your specifications. The EcoSystem Genesis Unit is the low cost answer for your odorization needs. The EcoSystem Genesis Unit can be set up in either Pulse By-Pass or Injection style configurations.



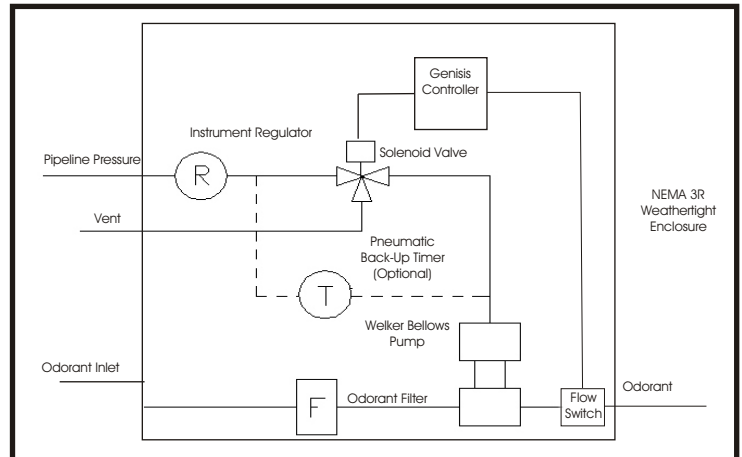
EcoSystem Pulse Bypass Systems have no pump to fail, no seals to leak and no moving parts - giving you a more maintenance-free system and giving us all a cleaner environment. The Accu/Line injection Systems feature the OdorEyes BIP Bellows pump for the ultimate in proven performance and environmental protection from unwanted spills and leaks.

*Simplified piping diagram of typical Accu/Line*



*Simplified piping diagram of typical*

Pulse By-pass Odorizers built by OdorEyes Technologies are manufactured under Patent number #6,142,162



OdorEyes Technologies  
13839 West Bellfort  
Sugar Land, Texas 77478  
Phone: 1-877-ODORIZE



# EcoSystem Genesis

## **ODOREYES TECHNOLOGIES ECOSYSTEM GENESIS UNIT**

The OdorEyes EcoSystem Genesis Unit can be set up as a Pulse -By-Pass or Injection style odorizer system that odorizes natural gas proportional to flow. To ensure accurate odorization, factors, such as gas flow, temperature, pressure, odorant type, and size of solenoid, are used to determine the volume of gas to be passed through the odorant tank.

The Genesis will accept a digital (or analog optional) signal from any type gas flow meter. The meter signal must be representative of instantaneous gas flow in the pipeline. Digital signals must be in the form of a 24V dry contact.

OdorEyes will calculate how often to operate the solenoid, based on the customers specifications. To accommodate changes in the odorization rate, the solenoid settings can be changed in the field by the customer using the built in LCD screen. The solenoid is checked for verification of opening by a pressure switch that sends a dry contact back to the controller.

There are also two options that can be set in the event of a gas flow signal loss. The first is a time out for the gas flow input that can be set by the customer. If the controller does not see a pulse from the gas flow meter in a certain amount of time then the odorizer will go into one of it gas flow fail modes. The second option is to choose the gas flow fail mode which has two options. The first fail mode is the shutdown mode where the odorizer will not operate. The second is constant rate fail mode, where the controller will operate the solenoid based on a customer set fail mode cycle time. In this case the controller will use the same solenoid open time as it did in normal operation. The gas flow failure alarm will clear the first pulse the odorizer receives from the gas flow meter and the odorizer will go back to normal operation.

The controller is also equipped with a 24V dry contact alarm output that will turn on in the event of any combination of alarms. The three alarms that can occur are: gas flow failure, odorant overflow (solenoid hung open) and odorant no flow (solenoid did not open).

The built in LCD screen on the controller displays any active alarms, the time the solenoid is open per pulse and the number of times the solenoid has been activated. The last number can count up to 99,999,999 solenoid opens and will automatically reset on December 31 at 11:58 pm every year.

### Functions:

Normal Operation: Controller is programmed to odorize proportional to flow at a pre programmed odorization rate in pounds/mmcf.

Fail Safe: Backup mode on loss of power or meter signal. Output pulses programmed to user needs.

No-Flow Shutdown: May be programmed to shut odorizer down if the station has no flow (prevents over odorization)

### Power Required:

24 VDC

110 VAC

### Gas Flow Input:

24 V Digital Input or Multi-Configurable Analog Input

### Outputs:

24 V Digital Output for Alarm and Solenoid

### Pump Cabinet:

NEMA 3R Weathertight Enclosure 20" x 20" x 8"

### Options:

Solar power

Temperature Transmitter