# ODORIZATION SYSTEM for NATURAL GAS and BIOMETHANE

 $OdoZEN^{TM}$  is a patented natural gas odorization system. It is particularly suited for use with renewable gases such as biomethane.

A highly accurate system able to react to any sudden changes in pressure and flowrate, and able to dose over a wide range of concentrations.

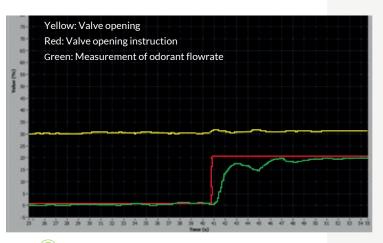
#### Features

- The odorant injection regulating valve is controlled via mass flowrate measurement.

- "Closed loop" odorant circulation.
- Stainless steel piston pump with Teflon double membrane.
- Automatic or manual operation via controller.

- Real time visibility of injection, setpoint and regulation curves.

- System-specific injection probe connected to the skid.
- ATEX zone 1 compliant.



Injection, setpoint and regulation curves



Prototype tested at RICE

#### Advantages

- Immediate response to variations in flowrate and/or pressure.
- No under or over dosing of odorant.
- Steady and accurate control of the odorant injection.
- No risk of pudding at injection point.
- Optional reserve tank to allow changeover of odorant tank without interrupting injection.
- Turnkey, self-contained and compact unit.
- Mobile system available on request.





### **Technical specifications**

Operating temperature range	0 - 45°C
Maximum pressure	90 barg
Minimum permissible flow	5 Nm3/h
Minimum odorant injected	0.1g
Odorant concentration setting	25mg/Nm3 (Other values configurable)
Skid frame materials	316 stainless steel
Wetted materials	316 stainless steel
Sealing	Perfluorocarbon, Teflon and Viton
Power supply	230 volts AC (Max power = 2000W)
Communication protocol	Modbus
Input/Output	4-20mA, RS485
Footprint (Approx.)	2000 x 1600 x 600 mm

## Applications

Biomethane injection station

Start-up phase of a new installation or network extension.

Odorization correction (storage, reverse flow stations ...)



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