

# NJEX<sup>®</sup> Odorant Injection System

## Models 8300 and 8302

NJEX 8300 and 8302 odorant injection systems inject precise amounts of liquid odorant into cubic feet or meters of gas that flows down a pipeline to ensure detectability. Designed for high-volume applications, these odorizers provide proportional-to-flow odorant injection, onboard metering of the odorant injected, system monitoring and alarm notification. Additionally the system will document and verify the performance of each system component, parameter changes, alarms and injection rates. Available in a single or dual-unit configuration, the systems are capable of accurately injecting up to 257 liters/day (68 gallons/day).

## Features and Benefits

- Patented, pneumatically-actuated, positive-displacement reciprocating plunger pump
- Teflon diaphragm isolates all dynamic seals from the odorant
- 257 liters/day (68 gallons/day) maximum odorant output
- Versatile, electronic controller for proportional-to-flow or time-based operation
- Real-time system monitoring and alarm notifications
- Remote communication via ModBus or Sentry4 Software
- Intrinsically safe electronics
- Single or Dual Configuration to meet application requirements
- Weatherproof enclosure for protection from the elements

## Specifications

Maximum odorant output	257 liters/day (68 gallons/day)
Maximum operating pressure	99.28 bar (1,440 psig)
Operating temperature range	17°C to 60°C (0°F to 140°F) <sup>1</sup>
Power supply	
Standard	SPS-12 solar panel
Optional	LPS 120/240 volt, 50/60 Hz AC charger
Battery reserve	Approximately 30 days
Gas flow rate input signal	1-5 VDC, 4-20 mA or pulse

<sup>1</sup>At temperatures below 0°C (32°F) conditioning of the actuation gas supply may be required.



## System Flow Schematic

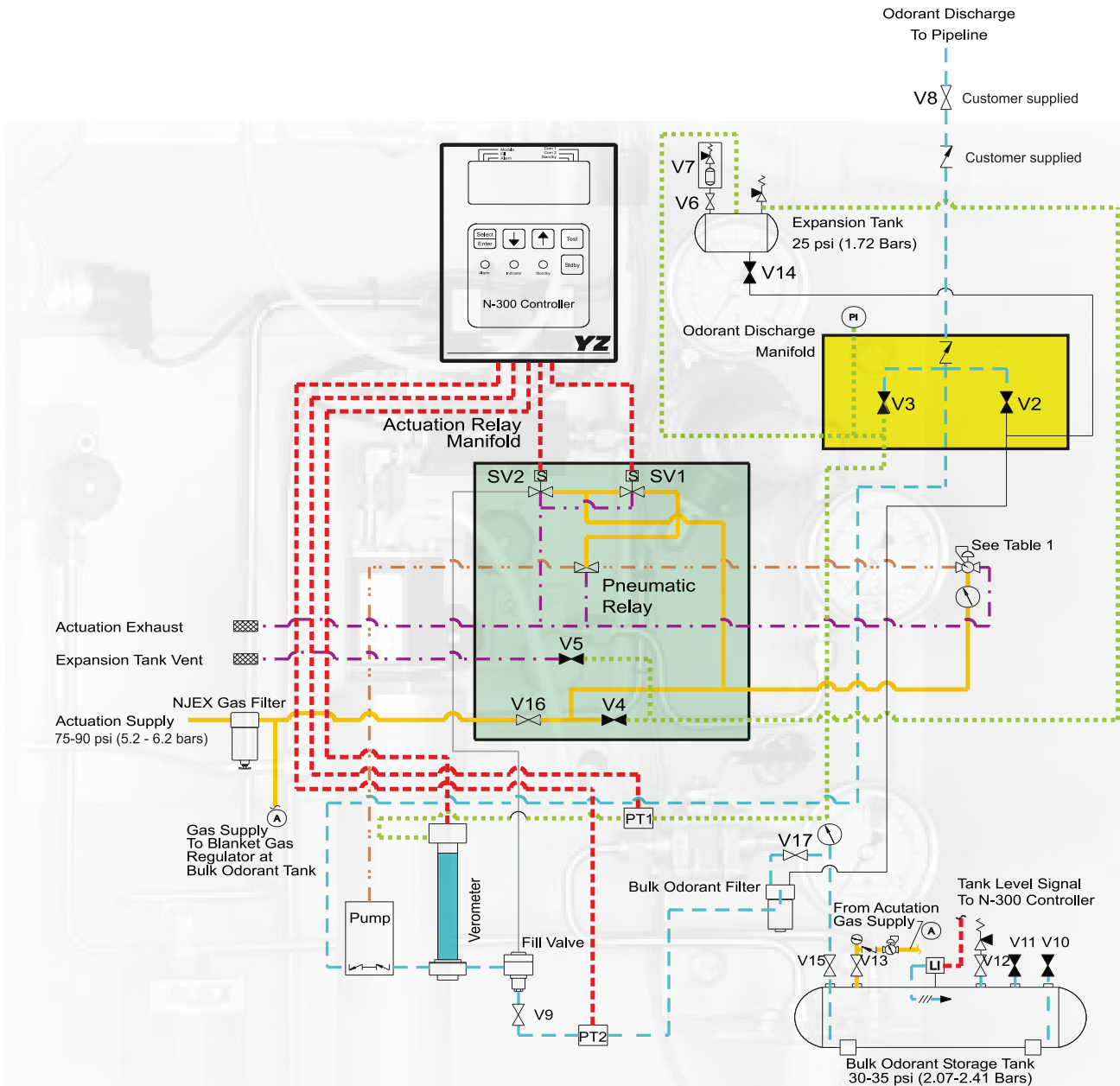


Table 1	
8300	
Pipeline Pressure	Actuation Pressure
200-400psi (13.89-27.6Bar)	40psi (2.76Bar)
400-600psi (27.6-41.4Bar)	50psi (3.45Bar)
600-800psi (41.4-55.2Bar)	60psi (4.14Bar)
800-1000psi (55.2-68.9Bar)	70psi (4.83Bar)
1000-1300psi (68.9-89.6Bar)	80psi (5.52Bar)
1300-1500psi (89.6-103.4Bar)	90psi (6.21Bar)

**IMPORTANT: Read And Follow Steps 1-4 BEFORE Proceeding**

- Place the controller in the "standby" mode.
- Close all valves marked "X".
- Open all valves marked "O".
- Place controller in the proper mode of operation as needed.

1. Open to build pressure to 60 psi (4.14 Bars) then close valve  
 \* Adjust as needed

	V2	V3	V4	V5	V6	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17
Normal Operation	X	X	X	O	O	O	*	X	X	O	O	X	O	O	O
System Purge	O	X	X	X	X	O	*	X	X	O	O	X	O	O	O
System Vent	O	O	X	O	X	X	*	X	X	O	O	X	O	O	X
Leak Test	O	O	O	X	X	X	*	X	X	O	O	X	O	O	X
Prime Pump	X	O	X	X	O	X	*	X	X	O	O	X	O	O	O

- LEGEND**
- Normally Closed Valve
  - Normally Open Valve
  - Pneumatic Relay
  - Check Valve
  - Float Valve
  - Pressure Gauge
  - Electronic Level Transmitter
  - Solenoid Valve
  - Pressure Regulator w/Gauge
  - Pressure Relief Valve
  - Pressure Transmitter
  - Liquid Odorant - Normal Operation
  - Purge/Drain Line
  - Expansion Line
  - Intrinsically Safe Electrical Line
  - Exhaust/Vent Line
  - Actuation Line 75 psi (520 Kpa)
  - Fill Valve Actuation Line
  - Pump Actuation Line
  - V2 Purge Valve (Red Knob)
  - V3 Prime Valve (Blue Knob)
  - V4 Expansion Tank Pressure Supply Valve (Gold Knob)
  - V5 Expansion Tank Vent Valve (Green Knob)
  - V6 Expansion Tank Overflow Preventor Isolation Valve
  - V7 Expansion Tank Overflow Preventor Isolation Valve
  - V8 Isolation Valve
  - V9 Fill Rate Control Valve
  - V10 Odorant Storage Tank Fill Valve
  - V11 Odorant Storage Tank Vapor Return Valve
  - V12 Odorant Storage Tank Pressure Isolation Valve
  - V13 Odorant Storage Tank Blanket Gas Isolation Valve
  - V14 Expansion Tank Drain Valve
  - V15 Odorant Storage Tank Supply Isolation Valve
  - V16 Gas Supply Isolation Valve (Black Knob)
  - V17 System Odorant Supply Isolation Valve
  - SV1 Pump Actuation Pilot Solenoid Valve
  - SV2 Fill Valve Solenoid Valve
  - PT1 Expansion Tank Pressure Transmitter
  - PT2 Odorant Inlet Pressure Transmitter