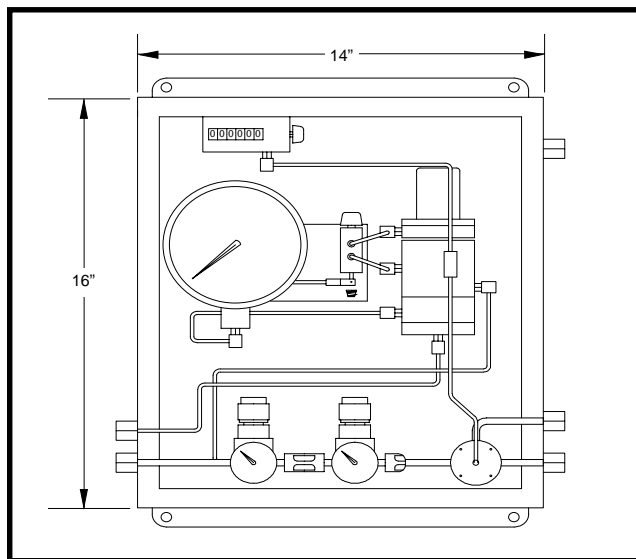


MORGAN PRODUCTS

3-15 PSI CONTROL MODULE

TYPICAL APPLICATIONS:

- A. Used as an integral part of Morgan Products automatic flow tracking chemical and odorant injecting systems that require 3-15 PSI control signal.
- B. Used to control output volume of Morgan Products pneumatic chemical injection pumps when flow rates of the process line fluctuate.



CONTROL DESCRIPTION

The Morgan Products Control Relay is an automatic flow tracking that is a totally pneumatic self contained system that converts a 3-15 PSI control signal into pneumatic pulses. The output pulse rate will vary proportionally to the 3-15 PSI control signal and can be directly connected to a Morgan Products pneumatic chemical injection pump to achieve a chemical injection rate that is controlled by the flow rate of the pipe line.

Standard features of the Morgan Products 3-15 PSI Control Module are all stainless steel tubing and tube fittings, air pressure regulators to control air flow to the pneumatic control and airflow to the pneumatic injection pump and rate control to set pulse rate span. The entire system is contained in a NEMA 12 weather proof enclosure.

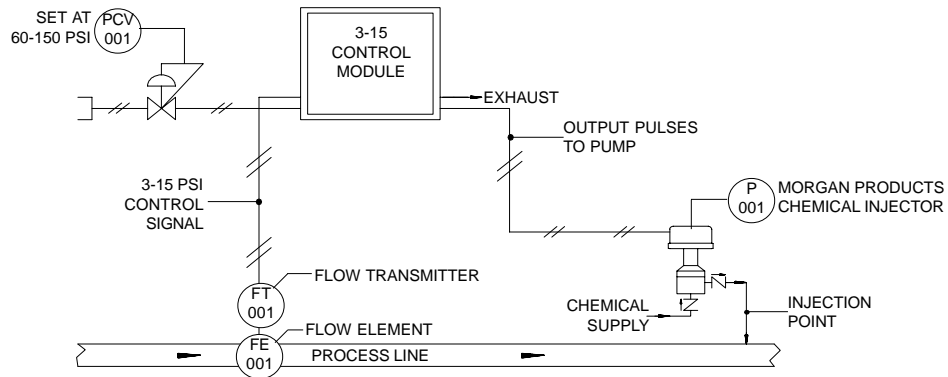
Available options are a totalizing counter and a delay counter. The pulse rate span on a standard unit is 4-30 pulses per minute minimum and 10-45 maximum. When the delay counter option is added the maximum pulse rate remains the same but the minimum can be slowed to near ZERO. By adding this option applications with very low injection rates, such as a small gas pipe line being odorized with a dripper can now utilize the accuracy of a pneumatic injection pump and automatic flow tracking.

When the Morgan Products 3-15 PSI Control Module (3-15 CR) is used with any pneumatic injector (piston displacement, hydraulic diaphragm or air diaphragm type) the chemical injected into a process line will be directly proportional to the flow.

MORGAN PRODUCTS INC. 28103 Ave. Stanford / Valencia, CA 91355

(661) 257-3022 - (800) 421-8910 - FAX (661) 257-3385 - www.morganproducts.com - E-Mail info@morganproducts.com

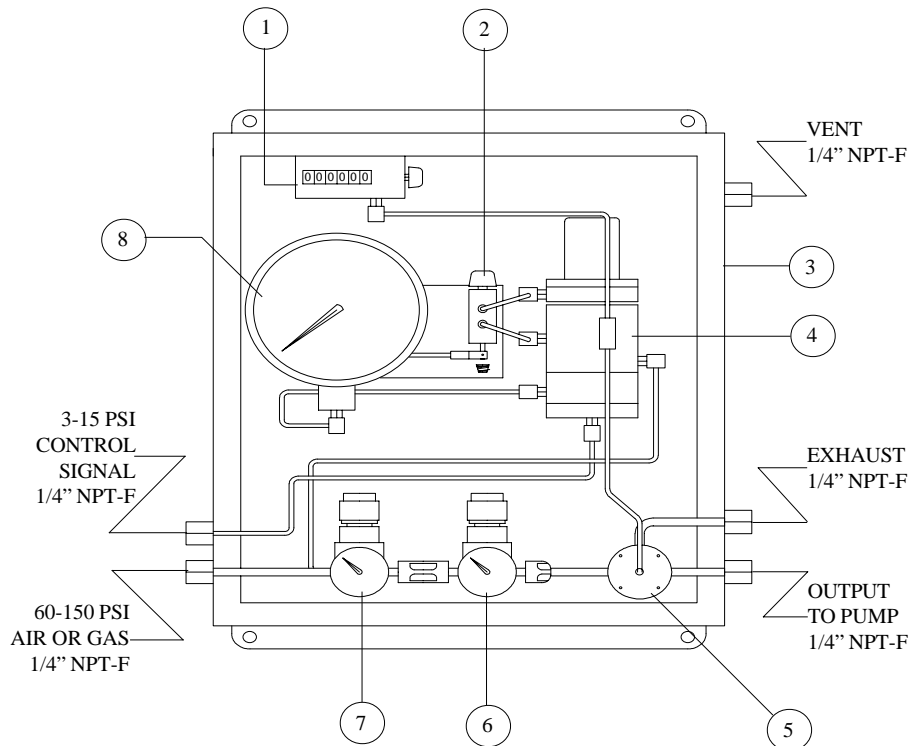
3-15 TYPICAL APPLICATION



DRAWING A

3-15 PSI CONTROL MODULE LAYOUT DIAGRAM

NO	PART NAME
1	Pulse Counter
2	Span Adjustment
3	12" x 12" Nema 12 Enclosure
4	Control Relay
5	SRIS Relay
6	Pump Supply Regulator
7	Control Supply Regulator Set @ 60 PSI
8	Valve Actuator Assembly



DRAWING B

Drawing "A" illustrates the connections and equipment necessary to install a 3-1 5 CM. The Control Module accepts a 3-15 PSI process signal from a pneumatic process controller or a differential pressure transmitter and converts the analog signal into pneumatic pulses that vary proportionately to the flow rate. PCV 001 set at 60-1 50 PSI supplies the gas or air required to operate the Control Relay and the pneumatic injector.

FT 001 supplies the 3-15 PSI flow rate signal, P 001 is directly connected to the Control Relay and does not require a separate air supply.

Drawing "B" shows the internal components of the Control relay. NO.7 regulates the air or gas supply to the timer (set at 60 PSI). NO.6 regulates air or gas supply to the chemical injector (set at 25-75 PSI). NO.4 converts the 3-15 signal to a pulsed pneumatic signal.