



NX1 Air Purge Module for Spring Return Actuators



NX1

Introduction & Features:

Flow Line Controls NX1 Air Purge Module prevents corrosive, dusty and moisture bearing air from being sucked into the spring return side of an actuator. It does this by diverting the actuator's non-spring side air into the spring chamber instead of exhausting it into the atmosphere when the actuator is cycled. Every time the actuator cycles, the spring chamber is purged with fresh instrument supply air rather than contaminated atmospheric air. This can substantially increase the service life of the Rack & Pinion actuator by protecting the spring chamber seals and springs from harmful contaminants.

Installation:

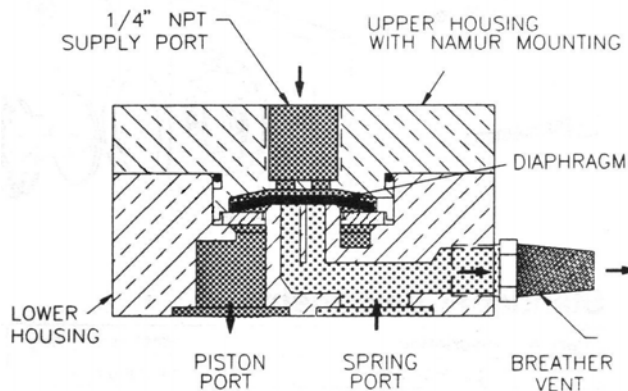
NX1 Air Purge Module mounts to the actuator's Namur air inlet. The NX1 has a 1/4" NPT inlet for tubing from a remotely located solenoid valve.

Specifications:

Temperature Range: -20F to +180F
 Pressure Range: 20psig to 100psig
 Media: Dry or lubricated non-corrosive gas compatible with nitrile seals
 Flow Coefficient: $C_v = 0.80$ spring stroke
 $C_v = 1.20$ pressure stroke

Actuator Pressurized

Pressure at supply port presses edge of diaphragm to ring, allowing air flow around and under ring. Air flows into piston port of actuator, compressing springs. Spring side air exhausts out vent to atmosphere.



Actuator Exhausted

Supply pressure is released and springs push on piston to force air out piston port. Pressure forces diaphragm up, covering supply port and revealing spring port. Air flows into spring port, allowing clean air in instead of contaminated air from the environment.

