

Three way valves have three pipe connections and two orifices. When one orifice is open, the other is closed, and vice versa. They are commonly used to alternately apply pressure to and exhaust pressure from a valve actuator or a single-acting cylinder.

### Three Types of Operations Apply:

#### Normally Closed (NC)

When the valve is de-energized, the pressure port is closed and the exhaust port is connected to the cylinder port. When the valve is energized, the exhaust port is closed and the pressure port is connected to the cylinder port.

#### Normally Open (NO)

When the valve is de-energized, the pressure port is connected to the cylinder port and the exhaust port is closed. When the valve is energized, the pressure port is closed and the cylinder port is connected to the exhaust port.

#### Universal (Univ)

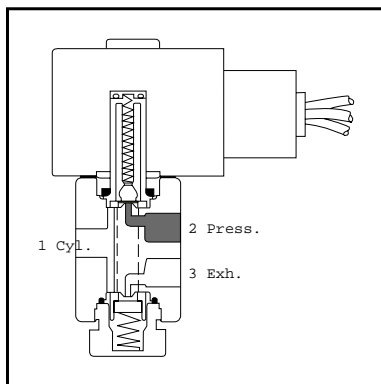
This allows the valve to be connected in either the Normally Closed or Normally Open position ... or to select one of two fluids or to divert flow from one port to another.

*See Engineering Section for further details.*

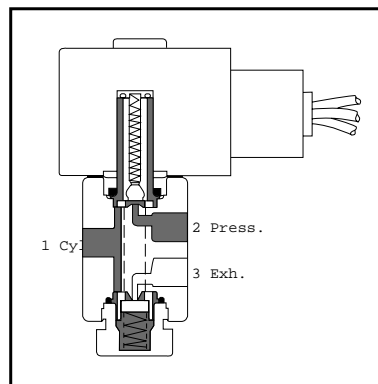
#### Standard and Optional Features:

Solenoid valves are supplied, as listed, with either Red-Hat II® molded epoxy solenoids or Red-Hat® solenoids with metal enclosures. Red-Hat II valves are identified by the letter "G" or "H" in their catalog numbers; e.g., 8320G1. Many optional features may be added to your valves; e.g., high-temperature Class H molded coils and manual operators. *See the Optional Features Section for details.*

### 3 Way/2 Position Valves Flow Diagrams



**De-Energized**



**Energized**

### Index

Series	General Description	Pipe Size (NPT)	Page Number
8300/8315	General Service	1/8" – 1/2"	3.01
8314	General Service	1/8" – 1/4"	3.05
8316	Air and Water	3/8" – 1"	3.09
8316	Zero Minimum	1/4" – 1/2"	3.13
8317/8321	Quick Exhaust	1/4" and 3/8"	3.15
8320	General Service	1/8" – 1/4"	3.19
8325/8380	Sub-Miniature	1/8"	3.23
8327	High Flow Poppet	1/4"	3.27
8360	Plastic Body	1/4"	3.29