



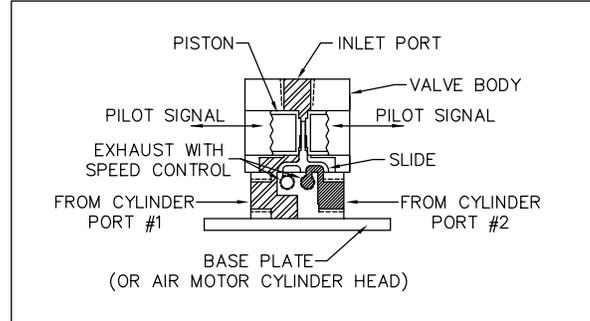
# JHDA AIR MOTOR VALVES

## SERIES 2MA 4-WAY SLIDE VALVE

This exclusive pneumatic slide valve was designed specifically for Lehigh's line of Air Motors, yet it can be used in other air-powered device applications. It features **Fast Acting** operation . . . Up to 1,500 cycles per minute. It is **Reliable** . . . Operating even with improperly filtered air. It offers **Long Life** . . . The metal-to-metal seat is self-cleaning and operates for millions of cycles without significant wear. It is **Compact** . . . The short piston permits short valve length

### HOW IT OPERATES

The air-driven piston moves the slide. In each of its two positions, the slide opens one exhaust and one pressure port. The rate of flow of exhaust air is controlled by adjustable speed controls mounted in each of the two exhaust orifices. Both these orifices lead to a single exhaust port. The oversized actuating piston assures positive breakaway action, regardless of dirt in the operating areas or of low operating pressures. The slide effectively wipes the seat clean on each cycle, assuring a satisfactory seal even when used with improperly filtered air.

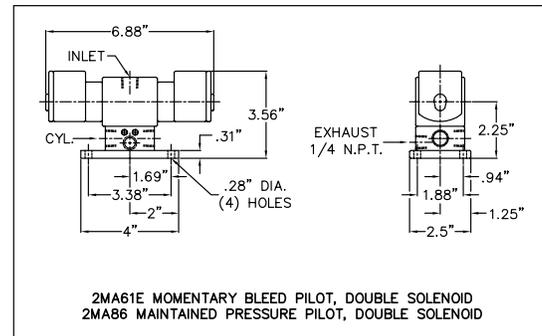


### CONSTRUCTION

**Piston:** Corrosion resistant anodized aluminum on all valves except 316 stainless steel on valve model 2MA57 AND 2MA61E double bleed valves. **Slide:** Lapped manganese bronze. **Valve Base:** Lapped nickel-plated ductile iron. **Valve Body:** Anodized heat treated aluminum.

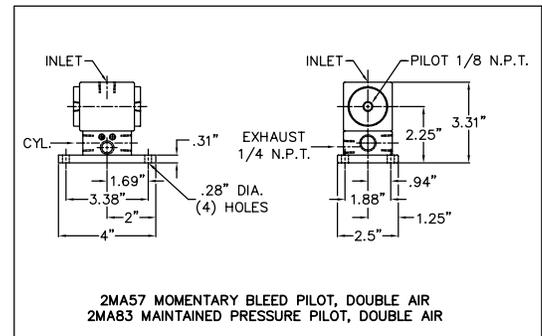
### MOMENTARY BLEED PILOTS

The balanced piston is actuated by momentary unbalancing caused by the pilot air exhausting from the opposite signal port. The exhausting of pilot air is actuated by double solenoids integrally mounted on the valve (**Model 2MA61E**) or actuated by pilot air from valves in the customer's control circuit (**Model 2MA57**).



### MAINTAINED PRESSURE PILOTS

Positive maintained pilot pressure is used move the piston/slide mechanism, holding it in the desired actuated position. The pilot air is actuated by double solenoids integrally mounted on the valve (**Model 2MA86**) or actuated by pilot air from valves in the customer's control circuit (**Model 2MA83**).



### AIR RETURN

The piston/slide mechanism can be supplied with one end having a smaller diameter in order to create a differential force when both sides are subjected to the same air pressure. The larger end will overpower the smaller end, causing movement toward the smaller end. When air in the larger diameter is exhausted, line pressure acting on the smaller end automatically activates the return. Control is by a single solenoid integrally mounted on the valve (**Model 2MA78**) or by single pilot air actuation from a valve in the customer's control circuit (**Model 2MA89**).

