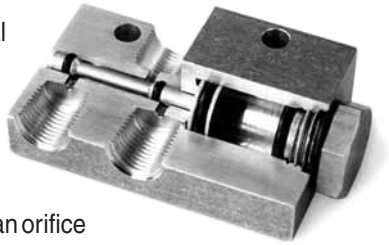
This valve provides a momentary (pulse) output at its cylinder port when pressure is applied at its inlet. No additional flow is possible until pressure at the inlet is removed, reset time allowed, and pressure reapplied. Reset time is slightly longer than output pulse time.

OS-1

Operation



When the incoming signal is applied to the **IN** port, the spool is immediately shifted, allowing the pressure to and through the **CYL** port, becoming the output signal. Pressure then bleeds across an orifice through the piston head. When pressure is equal on both sides of the piston head there is a force unbalance on the spool. This force unbalance returns the spool to its original position. In this position the incoming signal is blocked and the **CYL** is connected to the **EXH**, in turn venting the output signal.

Before the valve can produce another output signal it must be reset. This is accomplished when the input signal is removed from the **IN** port and the pressure behind the piston bleeds back through the orifice and drops to zero psi. This also self cleans the orifice every cycle. The next incoming signal can then produce another output signal.

NOTE! The incoming signal MUST be of sufficient pressure and volume to shift the spool before bleeding across the orifice and balancing out.

Features

- One moving part.
- Buna-N seals.
- Pulse time preset at factory. (See Model Chart)
- Shorter pulse can be field set with ordinary sewing needle.
- Can be cleaned or repaired without removing from installation.
- Spool action can be observed for trouble shooting circuit.
- Operating pressure: 45 to 150 psi.
- Operating temperature: 0° to + 180°F.
- No springs.
- Self-cleaning orifice.

Applications

• ***Signal Conversion - Pulse***, to convert a constant or maintained signal from a limit valve or other source to a pulse or momentary signal for a double piloted valve or other device. This allows the double piloted valve to be shifted back even though the originating limit valve is still held open. See sequencing circuit on page 13.4.

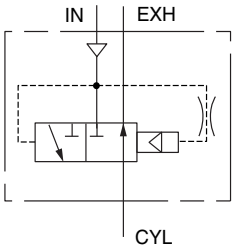
• ***Single Cycle***, to convert a signal from a hand or foot control to a pulse signal. This allows only one cycle of the circuit even if the operator holds the starting device on. The operator must release the starting device to reset the one-shot / pulse valve and then reactuate to achieve the next cycle. See pressure sensing circuit on page 13.4.

• ***Open End Blast***, to provide a pulse of air through a nozzle or tube for automatic part blow off or chip removal.

Sizing

Model Number	Approximate Pulse Time, Seconds @80 psi	Approximate ResetTime, Seconds @80 psi	Port Size	Weight Oz.
OS-1	3/4	1	1/8 NPT	3.1
OS-3	1-1/2	2	1/8 NPT	4.8

Symbol



Dimensions

Model No. OS-1 & OS-3 1/8 NPT Ports

Materials:
Body, Aluminum, Unanodized
Cap, Brass
Spool, Aluminum