

ALL-FLO Pump Company

Cycle Counting for Air-Operated Double Diaphragm Pumps



Why Count Cycles? Counting the number of cycles provides a method of measuring how much fluid is being transferred through the pump. Every time a cycle is completed, an impulse is sent from the cycle count valve. This impulse can be interpreted by a data acquisition center for automated input to a PC, PLC, relay or switch. The control device can then regulate a valve on the air line or fluid discharge line based on a measured number of cycles.

Note: The pump must be calibrated prior to set up to determine the amount of product transferred for a pump cycle. Changes in air capacity and pressure, fluid line size, viscosity and other factors can affect the amount of fluid transferred per cycle.

What Applications Benefit from Cycle Counting? Knowing the number of cycles elapsed is ideal for 1) monitoring how much additive a system has received, 2) adding a precise dose of fluid based on a set number of cycles or 3) for cycle based maintenance rather than time interval maintenance. Due to fatigue, diaphragms have a cycle life. When pumping aggressive or hazardous fluids, a total cycle count is valuable information for a preventive maintenance program. With use of the cycle count valve, the number of cycles elapsed can be monitored from any work station that is networked with the cycle counter.

What size pumps offer Cycle Counting? The cycle count valve is available for 3/8", 1/2", 1", 1-1/2", 2" and 3" pumps.

What components come with the cycle count valve? The cycle count valve is integral to the air valve. The sensor wire (24G 2 wire cable, 24" long) at the bottom of the air valve is provided (see photo). The configuration for data acquisition and control is not provided.

To Order...

To order a pump with the cycle count valve assembled on the pump, add Option Code –A42 to the pump model number.

To order the cycle count valve separately, use the following part numbers for the appropriate pump size (not available separately for the 3/8"):

<u>Product Line:</u>	<u>Part Number:</u>
1/2" & 1" Classic Performance (Clamped) Pumps with Polypropylene air valve body	40010-60
1/2" & 1" Classic Performance (Clamped) Pumps with Nylon air valve body	40010-43
1/2" & 1" Performance Plus (Bolted) Pumps	42010-60
1-1/2" & 2" Classic Performance (Clamped) Pumps	45110-60
3" Classic Performance (Bolted) Pumps	50010-60