CHEM TEC EQUIPMENT COMPANY

INSTALLATION AND MAINTENANCE

MODEL 500BPHP SERIES

OPERATION:

With no flow present, the magnetic piston rests on the bottom of the bypass bore. When flow is established the piston is forced upward by the bypass flow and actuates (closes) the reed switch. The bypass flow is controlled by manual adjustment of the flow control vane. When flow decreases the piston moves downward and the reed switch is reopened.

SPECIFICATIONS:

STANDARD FLOW SETTINGS		
MODEL	AIR	WATER
	ADJUSTABLE RANGES	
500 BPHP	0.2 to 35 SCFM	0.03 to 4 GPM

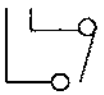
Actuation points at STP for air. Actuation varies with line pressure and media. Actuation points shown are for increasing flows. Differential between on and off less than 10% Repeatability ±2%

BODY MATERIAL	MAXIMUM WORKING PRESSURE	WETTED PARTS
316 SS	6000 psig	316 SS, epoxy

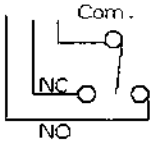
SWITCH DATA	SPST	SPDT
Maximum Switching Voltage		
DC	200	100
AC	150	-
Contact Rating		
DC(W)	50	3
AC(VA)	70	-
Maximum Switching Current (A)		
DC	1.0	.25
AC	0.7	-

Above values for resistive loads only. For inductive loads, surge current and rush current - contact protection is required, consult your local representative.

SPST leads 18 in. min. from body, yellow.



SPDT (Optional) leads 18 in. min. from body.



- Green - NC
- Blue - NO
- White - Common

22 E 19, TFE Insulation

24 E 19, TFE Insulation

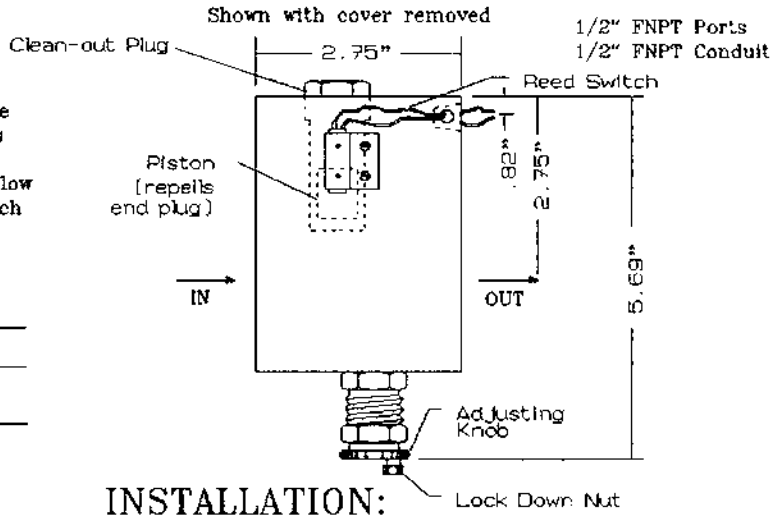
PARTS LIST:

1) PISTON:
   Stainless P/N: A-911-1
   Teflon Encapsulated P/N: A-206

2) SEAL KIT:
   Viton P/N: A-913V

3) REED SWITCH CAPSULE:
   Standard unit P/N: A-149 SPST 1 AMP
   SPDT Unit P/N: A-149 SPDT .3 AMP

4) CLEAN-OUT PLUG: P/N: B-250-1



INSTALLATION:

The flow switch must be installed vertically (leads on side) with horizontal piping. Avoid dirt, Teflon tape shred, or other foreign material from entering unit. Do not use pipe dope. We recommend use of a 100 micron filter.

The standard unit is provided with a SPST, NO (Open at rest) dry reed switch. Increasing flow above the actuation point will close the switch, decreasing flow below the actuation point will open the switch. SPDT models have both NO and NC capabilities.

Large metallic bodies and magnetic fields may affect the principle of operation of these units. If disturbance is suspected, adjustment of the reed switch may be necessary. Magnetic shielding may be required in severe cases.

TO SET SWITCH ACTUATION POINT:

A. For increasing flow actuation point:
   1. Loosen lock down screw on adjusting knob at bottom of unit.
   2. Turn adjusting knob to "H" or high flow mark.
   3. Establish flow in system at nominal rate desired.
   4. Turn adjusting knob slowly to the left towards "L" or low flow mark until switch actuates.
   5. Retighten lock down screw on adjusting knob.

B. For decreasing flow actuation point:
   1. Follow steps 1-5 above.
   2. Turn knob back towards "H" until switch deactuates.
   3. Retighten lock down screw on adjusting knob.

MAINTENANCE:

Cleaning the flow switch is easily accomplished without removal from the line. Unscrew the clean-out plug, remove the piston, and flush the flow passage. Care should be taken to thoroughly clean the piston before replacing. The piston must be replaced in the same orientation as it was removed. A magnet may be used to conveniently lift out the piston.

The position of the reed switch is factory preset and normally should not require resetting.

REED SWITCH REPLACEMENT:

1. Shut off flow. Remove screws and Black cover.
2. Loosen set screws using 1/16 Allen wrench.
3. Remove reed switch from bracket and replace.
4. Move switch downward until closure occurs (use Blue/White wires for SPDT)
5. Raise upward until switch opens.
6. Very gently retighten allen screws (lower screw first).
7. Cycle the unit on and off to test.

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