

# CHEM TEC EQUIPMENT COMPANY

# INSTALLATION AND MAINTENANCE MODEL 125 SERIES

## OPERATION:

Without flow present, the free magnetic piston is suspended in the upper portion of the flow switch bore due to magnetic repulsion between the lower fixed magnet and the piston. As flow is established, the piston is displaced downward proportional to flow, actuating the reed switch. The position of the reed switch may be adjusted to provide actuation at various flow rates.

## SPECIFICATIONS:

STANDARD FLOW SETTINGS		
MODEL	AIR ADJUSTABLE RANGES	WATER ADJUSTABLE RANGES
125	30 to 16,000 SCC/M	1 to 500 CC/M

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 averages 30% Repeatability  $\pm 2\%$

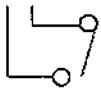
BODY MATERIAL	MAXIMUM WORKING PRESSURE	WETTED PARTS
TEFLON	80 psig	TFE
BRASS	1500 psig	Brass, epoxy
316SS	3000 psig	316SS, epoxy

## 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	-

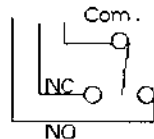
Above values for resistive loads only. For inductive loads, surge current and rush current - contact protection is required, consult your local representative.

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



22 E 19, TFE Insulation

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

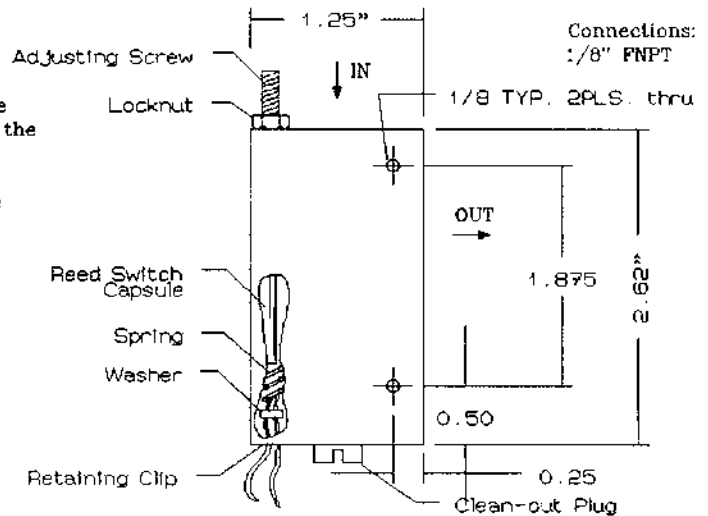


- Green - NC
- Blue - NO
- White - Common

24 E 19, TFE Insulation

## PARTS LIST:

- 1) PISTON:  
Teflon P/N: A-240  
Brass P/N: A-150-2  
316SS P/N: A-150-1
- 2) SEAL KIT:  
Teflon units P/N: 00-011T  
Brass, 316SS units P/N: 00-011V
- 3) REED SWITCH CAPSULE:  
Standard unit P/N: A-149 SPST 1 AMP  
SPDT Unit P/N: A-149 SPDT .3 AMP



## INSTALLATION:

The flow switch should be installed with the inlet vertically up, outlet horizontal. Avoid dirt, Teflon tape shred, or other foreign material from entering unit. Do not use pipe dope. We recommend use of a 10 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. Establish flow at desired actuation point.
  2. Loosen 8-32 locknut with 1/4 wrench.
  3. Using a 5/64 allen wrench, turn adjusting screw until switch deactuates (turns off).
  4. Reverse screw until switch re-actuates.
  5. Retighten locknut.
- B. For decreasing flow actuation point:
  1. Follow steps 1 & 2 above.
  2. Turn adjusting screw until switch actuates.
  3. Reverse screw until switch deactuates

## 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. A Torque of 14 in-oz is recommended for Teflon models.

### REED SWITCH REPLACEMENT:

1. Shut flow off.
2. Gently remove reed switch capsule retaining ring.
3. Remove washer, spring and reed switch capsule.
4. Replace reed switch capsule, spring and washer (in that order) reed switch leads should be fed through the spring and washer.
5. Set the actuation point as described in the above section.
6. Cycle the unit on and off to test.

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