

# CHEM TEC EQUIPMENT COMPANY

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## INSTALLATION AND MAINTENANCE

## MODEL CCM SERIES

### OPERATION:

Without flow present, the magnetic piston is held at the flow tube inlet by the magnetic repulsion caused by the fixed magnet at the opposite end. As flow is established the piston is displaced toward the magnetic end plug and a major portion of the flow is bypassed through the flow tube orifice into the annular space. At the adjusted point, the magnetic piston opens the reed switch. On decreasing flow the switch closes.

### SPECIFICATIONS:

STANDARD FLOW SETTINGS			
MODEL	AIR		WATER
	ADJUSTABLE RANGES		
CCM-00	10 to	150 SCC/M	1 to 5 CC/M
CCM-010	150 to	1000 SCC/M	8 to 180 CC/M
CCM-015	500 to	6000 SCC/M	20 to 370 CC/M
CCM-125	6000 to	16,000 SCC/M	65 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 10% Repeatability  $\pm 2\%$

BODY MATERIAL	MAXIMUM WORKING PRESSURE	WETTED PARTS
PVC	100 psig	PVC, epoxy

### SWITCH DATA

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

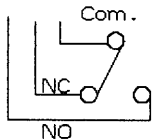
Above values for resistive loads only. For inductive loads, surge current and rush current - contact protection is required, consult your local representative.

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



22 E 19, TFE Insulation

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

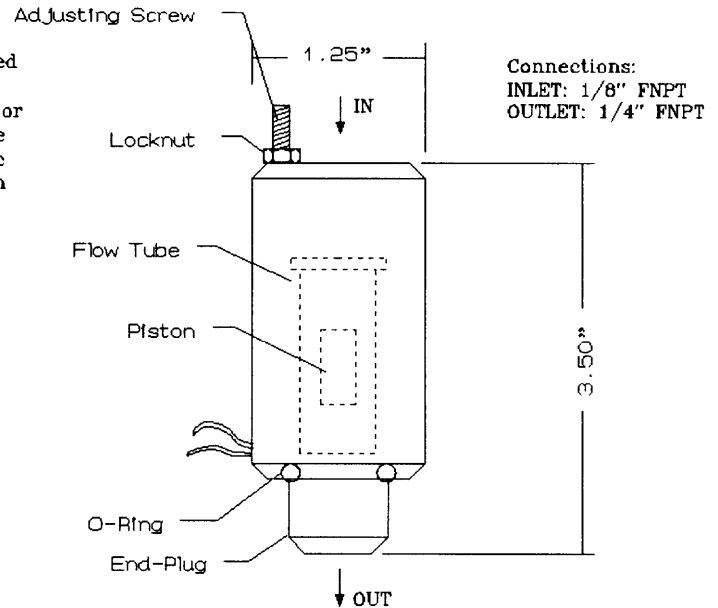


- Blue-NC
- Green-NO
- White - Common

24 E 19, TFE Insulation

### PARTS LIST:

- 2) SEAL KIT:  
Buna-N P/N: A-916B
- 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 vertically, inlet up, outlet down. 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 NC (Closed at rest) dry reed switch. Increasing flow above the actuation point will open the switch, decreasing flow below the actuation point will close 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:

For decreasing 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 actuates (turns on).
4. Reverse screw until switch deactuates.
5. Retighten locknut.

### MAINTENANCE:

To clean the flow switch you must first remove it from the flow line. Unscrew the end-plug and slowly remove the O-ring, flow tube and piston. BE EXTREMELY CAREFUL TO NOTE THE ORIENTATION OF ALL OF THESE INTERNAL COMPONENTS - THEY MUST BE REPLACED IN THE SAME ORIENTATION. Flush the flow passage and gently clean the internal components before replacing.