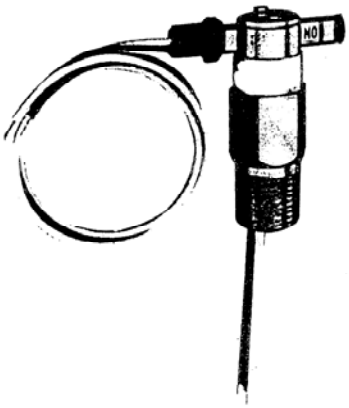
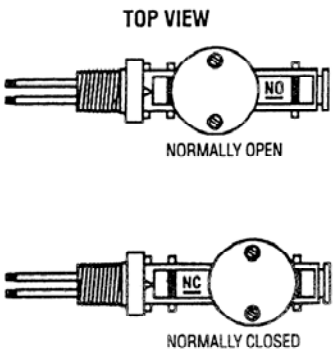
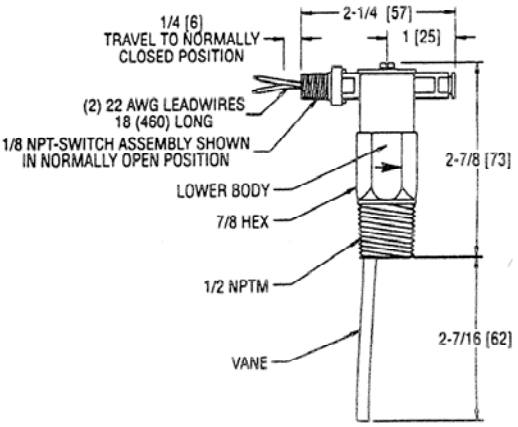
CHILLWATER FLOW SWITCH 221416-08







INSTALLATION

1. Carefully unpack switch and remove any packing material from lower housing. Trim the vane at the appropriate mark for the size of pipe being used. See actuation/deactuation chart. *CAUTION:* Mechanical shock or vibration can cause permanent damage to the reed switch. Take care to avoid dropping the unit on hard surfaces or impacting the switch assembly.

2. Apply Teflon® thread tape or sealant to the 1/2" NPT male mounting threads and install switch in the system piping with the arrow on side pointing in the direction of flow.

3. Connect wiring in accordance with local electrical codes. NOTE: the 1/8" NPT fitting is *not* a conduit connection and any loading on this fitting can adversely affect switch operation. Also, any rigid connection to this fitting will prevent adjustment of switching action between normally open and normally closed.

4. Inductive, capacitive and lamp loads can all create conditions harmful to the reed switch.

A) *Inductive loads* can be caused by electromagnetic relays, electromagnetic solenoids and electromagnetic counters, all with inductive components as the circuit load.

B) *Capacitive loads* can be caused by capacitors connected in series with or parallel to the reed switch. In a closed circuit the cable length (150 ft. or more) to the switch can introduce a capacitance.

C) *Lamp loads* can be caused by switching lamp filaments which have low cold resistance.

In addition to these causes, exceeding any of the maximum electrical ratings can lead to premature or immediate failure. This includes inrush and surge currents greater than the maximum switching current. Use caution when evaluating system loads and current. To accommodate these conditions, see diagrams on the reverse which depict possible solutions.

5. After installation, set the switch action to NO (normally open) or NC (normally closed). Normally closed contacts open and normally open contacts close when increasing flow actuates the reed switch. To change, loosen, but do not remove, the two screws on the top cap. Slide the reed switch assembly to expose the switch action selected. Tighten screws when adjustment is complete.

MAINTENANCE

Following final installation of the Flow Switch, no routine maintenance is required. A periodic check to confirm proper actuation/deactuation is recommended. These units are not field repairable

PHYSICAL DATA

Temperature Limit: 200°F (93°C) maximum.
Operating Pressure: Brass body – 1000 psig (69 bar) maximum. Stainless steel body – 2000 psig (138 bar) maximum.
Piping Connection: 1/2" NPT male.
Switch: Hermetically sealed single pole, single throw reed switch. Field adjustable between normally open and normally closed.
Electrical Ratings: 1.5A @ 24 VDC resistive, 0.001A @ 200 VDC resistive, 0.5A @ 120 VAC.
Wire: 22 AWG×18 inches (460 mm) long.
Switch Body: Choice of standard brass or optional 303 stainless steel.
Reed Switch Housing: Polypropylene.
Vane: 301 stainless steel, 7/16" wide×.020" thick (11×.51 mm).
Wetted Materials: 301, 302 and 316 stainless steel, ceramic 8 magnet, brass or optional 303 stainless steel body.
Installation: Install with index arrow pointing in direction of flow. Can be mounted in any position.
Weight: 4½ ounces (128 grams).
Overall Length: 5.25 inches (133 mm).

Cold Water Flow Rates Approximate actuation/deactuation GPM upper, LPM lower				Air Flow Rates Approximate actuation/deactuation SCFM upper, NM³/H lower			
Pipe	Trim	N.O.	N.C.	Pipe	Trim	N.O.	N.C.
½"	L	2.6/2.3 9.8/8.7	2.6/2.5 9.8/9.5	½"	L	10.3/8.8 17.5/15	10.2/9.2 17.3/15.6
¾"	J	3.1/2.7 11.7/10.2	3.1/2.8 11.7/10.6	¾"	J	13/11.6 22.1/19.7	12.9/11.6 21.9/19.7
1"	H	4.8/4.5 18.2/17	4.8/4.4 18.2/16.7	1"	H	19.2/17.6 32.6/29.9	18.9/17.6 32.1/29.9
1¼"	E	6.2/5.6 23.5/21.2	6.1/5.6 23.1/21.2	1¼"	E	24.8/22.2 42.1/37.7	24.5/22.5 41.6/38.2
1½"	C	8.2/7.7 31/29.1	8.2/7.7 31/29.1	1½"	C	33.4/31.2 56.8/53	33/30.6 56.1/52
2"	Full	9.5/9.1 36/34.4	9.5/9 36/34.1	2"	Full	50.2/48.4 85.3/82.2	50.2/47.7 85.3/81.1

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