Special Circuits
Mercoid Magnetic Head Controls

Mercury Switches

Up to 4 electrically independent SPST switches available on a single level. Mercury contact switches are hermetically sealed for millions of "makes" and "breaks." They also provide visibility of contact elements unaffected by dust, dirt, grease, lint and corrosion. Ample capacity is provided for normal overloading. Note: 440 volts is available on special order, SPST only for two stage.

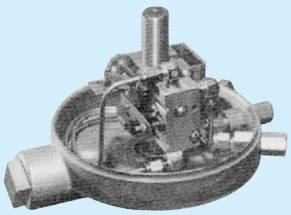
Mercury switches are far superior to other types, such as snap switches, for low energy circuits (4 to 20 milliamps). Mercury switches have stable low resistance and are not subject to atmospheric corrosion or contamination. The problems of contact bounce are minimized and no special circuitry or components are required.

CIRCUIT NUMBER	CIRCUITRY SINGLE OR TWO STAGE	ELECTRICAL RATINGS IN AMPS AC 120	AC 240	AC 440	DC 125	DC 250
4808V	Anti-vibration switch SPST make on low	4	2	1	4	2
4809V	Anti-vibration switch SPST make on high	4	2	1	4	2
4826V	Two anti-vibration switches DPST make on low	4	2	1	4	2
4828V	Two anti-vibration switches SPDT	4	2	1	4	2
4896V	Two anti-vibration switches DPST make on high	4	2	1	4	2
4838V	Two anti-vibration switches make on high. Two make on low. Equivalent to DPDT. Single stage only.	4	2	1	4	2
	SINGLE STAGE ONLY Set point will be inch lower than standard on some units.					
4910	Four switches; 4 pole close on low	10	5	3	10	5
4912	Four switches; (4P) 2 close on low, 2 close on high	10	5	3	10	5
4914	Four switches; (4P) 4 close on high	10	5	3	10	5

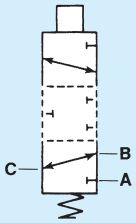
Note: Mercoid order editing may change the circuit number to give the desired switching action for the particular type of control ordered.

Level

Pneumatic Switch Mechanism
For Mercoid Magnetic Head Controls



Flow Diagram



The valve is field adjustable with three ported multi purpose valve functions when connected as indicated. Actuation at high level for 500 Series. All other series at low level.

VALVE FUNCTIONS WHEN CONNECTED AS ILLUSTRATED IN CHART

PORT	2 WAY N.O.	2 WAY N.C.	3 WAY N.O.	3 WAY N.C.	SELECTOR	DIVERTER
A	Plug	Inlet	Exhaust	Inlet	Inlet	Outlet
B	Inlet	Plug	Inlet	Exhaust	Inlet	Outlet
C	Outlet	Outlet	Outlet	Outlet	Outlet	Inlet

Precision built pneumatic switch mechanism is designed for use in a great variety of Mercoid magnetic head liquid level controls where non-electric switching is required. One heavy duty valve suits all requirements and is available in 2-way or 3-way units. The pneumatic switch features normally open or normally closed control with air pressure from vacuum to 200 psig (13.8 bar). The pneumatic switch operates with up to 200 lbs. W.S.P., or 400°F (205°C) in the chamber. Designed to provide millions of operations under normal conditions the pneumatic mechanisms internal parts are manufactured of hardened stainless steel for long term reliability while the valve body is constructed of rugged solid anodized aluminum.

SPECIFICATIONS

Maximum Switch Air Pressure: 200 psig (13.8 bar).
Maximum Chamber Pressure: 250 lb W.S.P.
Maximum Chamber Temperature: 400°F (205°C).
Pneumatic Process Connections: Three 1/8″ NPT connections 30° apart.
Process Connection Material: Brass and Copper (PC) or 316SS (PSS).
Flow Rate: 24 CFM (680 LPM) air with 100 psig (7 bar) inlet pressure.
Maximum Leak Rate: .45 CFH (12.7LPH) air at 100 psig (7 bar).
Valve Actuation Sequence: See chart above.

MODEL CHART

EXAMPLE	201	G	P	C	C1	60	
SERIES DESIGNATOR	XXX						Can be used with most magnetic head level controls. Consult factory. See Specifications for pressure, temperature limits.
ENCLOSURE		G	P				General purpose, NEMA-1 enclosure. Pneumatic switch assembly, see Chart for operating data.
PNEUMATIC CONNECTIONS				C SS			Three copper pneumatic fittings; 30 degrees apart 1/8″ NPT connections. Three 316SS pneumatic fittings; 30 degrees apart 1/8″ NPT connections.
					X	X	Denotes chamber materials and minimum specific gravity. Will vary by control type model number.